

**THE PERCEPTION OF GRADE ONE TEACHERS
TOWARDS THE USE OF EDUCATIONAL TECHNOLOGY
IN IMPLEMENTING CURRICULUM 2005 :
A CASE IN THE NORTHERN PROVINCE (REGION 3)**

A DISSERTATION PRESENTED TO

THE SCHOOL OF EDUCATION

UNIVERSITY OF VENDA

*In partial fulfilment
of the requirements for the degree of*

**MASTER OF EDUCATION
IN CURRICULUM STUDIES**

by

610673933

211320242

TANGANANI ESTHER RAMBANI

JANUARY, 2000

This study investigated the use of educational technology in Grade One in implementing Curriculum 2005.

The spirit of Curriculum 2005, which was introduced in South Africa recently, aims at making the child the centre of the process of knowledge. It is a break from the education system which had hitherto been aimed at acquiring knowledge with the primary aim of passing examinations, and thus producing citizens who are not exactly prepared for the jobs they seek and enter, and thus cannot practically cope with the realities of life. The programme, which changes the role of the child from a receptacle of knowledge to a participant in the creation and use of knowledge, makes use of materials and equipments in the environment especially traditional and modern technological facilities.

In the early stages of the programme, it is necessary to assess how the new concept is being handled by teachers, principals and education authorities, and how the use, inadequacy or absence of various materials and equipment – especially modern educational technology – impact on the success or otherwise of the programme.

This is what the study was about: an attempt to find out information about the use of educational technology in the implementation of Curriculum 2005 in South Africa. The focus was on Grade One, where the programme formally starts, and where “teething problems” and initial success can best be identified and where possible, attempts at suggesting improvements or remedy can be meaningfully made.

Various factors which should have a bearing on the progress and outcome of the system include classrooms, equipment, materials and human involvement. The use of specific types of educational media from traditional ones, such as charts, to modern and sophisticated ones, such as television and computers was examined in selected schools.

The researcher also tried to establish the types of educational media that are available and not available at the various schools. This was done in order to assess which area of teaching media needs attention.

From the findings, it was realised that the different types, of modern technology like, computers, video, television, filmstrips etc, need to be supplied to the different schools in order for the educators and learners to move with time.

The roles of pupils, parents, teachers and education officials in the use of media were investigated. The extent to which training and retraining, including workshops and seminars for teachers, principals and trainer-facilitators contribute to the programme was also investigated.

Sets of questionnaires and interview schedules covering these aspects of the programme were designed to elicit specific information from teachers, principals and trainer-facilitators, all of whom have been directly involved in the launch of the programme.

The schools in Venda area, which were chosen for this study, experience typical problems associated with rural area schools in South Africa: lack of classrooms and resultant overcrowding, the absence of electricity and modern technology at home and school, and teachers with less-than-adequate academic and professional background, among the most serious and prevalent ones.

The report of this study is presented in this dissertation under five chapters.

Chapter One gives a brief background to the study. The research problem is stated and justified. The purpose of the study, research objectives, research questions and a few key concepts are also established.

Chapter Two deals with the literature review. The chapter discusses the nature of Outcomes-Based Education, Curriculum 2005, and the use of educational technology as a form of educational support. The need to train teachers in using educational media (technology) and the relevance of educational media in Curriculum 2005 are also addressed.

I would like to thank the Almighty God who gave me strength, good health, insight and

Chapter Three deals with the research design and methodology. First, the population and sampling procedures are described. This is followed by an account of research instruments and their application in the collection of data from the field.

and insightful suggestions during the development of this research were invaluable. I am

Chapter Four focuses on data presentation and interpretation. Responses from Grade One teachers, principals and trainer facilitators are analysed and reported differently in sections A, B and C respectively.

husband Mboeni, Stani Mphahuli, Professor Dan

Chapter Five rounds off this report by making a comprehensive summary of the entire study, emphasizing the key conclusions, and presenting specific recommendations in line with objectives of this study.

Forson, Mrs Ramba and Mr Lumadi, my lecturers, who were my main source of

Education, Arts, Culture and Sports, Mr. Mubvumba, who gave me permission to conduct research in Region 3, deserves special mention and thanks.

I would also like to thank all the trainer-facilitators, area managers, circuit inspectors, principals and teachers for the cooperation and assistance they rendered during the course of investigation at their schools.

For the assistance of the University of Venda, the Venda National Library (Makwinda) and the Ramosang Mbovushu Training Centre library staff, I have special words of thanks.

ACKNOWLEDGEMENTS

I wish to express my sincere thanks and appreciation to the many people who contributed in various ways to the completion of this study.

I would like to thank the Almighty God who gave me strength, good health, insight and the power and courage to undertake this research project.

To professor E.L.M. Bayona, my supervisor, whose patience, inspiration, encouragement and insightful suggestions during the development of this research were invaluable, I am eternally grateful.

My sincere thanks goes to my husband Mboneni, Shoni Mphaphuli, Professor Barn Forson, Mrs Rambau and Mr Lumadi, my lecturer, who were my main source of inspiration.

The Regional Director of Education, Arts, Culture and Sports, Mr. Mathivha, who gave me permission to conduct research in Region 3, deserves special mention and thanks.

I would also like to thank all the trainer-facilitators, area managers, circuit inspectors, principals and teachers for the cooperation and assistance they rendered during the course of investigation at their schools.

For the assistance of the University of Venda, the Venda National Library (Makwarela) and the Ramaano Mbulaheni Training Centre library staff, I have special words of thanks.

I am astounded by the number of people who motivated me to pursue my studies. I am very grateful for the motivation of my parents, Mr and Mrs Raseluma, Mr Joseph Nepfumbada and his wife for their financial support during my junior degree, my late father-in-law Alfred Mphedziseni Rambani, who always motivated me to go on, my friends, colleagues, my brothers and sisters, whose love, courage and support I will never forget.

My darling husband, Mboneni, for his motivation, encouragement, guidance and support throughout my studies. Our children, Bonofulu, Muimeleli, Rotondwa, Unarine and Eneene-Halatedzi for their moral support and patience during my busy times. I would also like to thank my helper, Ndifelani, who took care of my baby Eneene while I conducted this research.

Finally, I would like to thank my typists, Rudzani Malala, and Ms Elizabeth Chauke who did the main part of the final typing, for their sacrifice.



DECLARATION

I, **Tanganani Esther Rambani** hereby declare that the dissertation for the **Master of Education in Curriculum Studies** degree at the University of Venda hereby submitted by me has not previously been submitted for a degree at this or any other university, and that it is my own work in design and execution and that all reference material contained therein has been duly acknowledged.

Tanganani
.....

SIGNATURE

2008.09.08
.....

DATE

CERTIFICATION

This Dissertation has been examined and is approved as meeting the required standards of scholarship for partial fulfillment of the degree of Master of Education in Curriculum Studies.

	PAGE
TABLE 1: MEDIA TRAINING	34
TABLE 2: THE USE OF MEDIA IN GRADE ONE	35
TABLE 3: LEARNERS' UNDERSTANDING OF THE LANGUAGE USED IN EDUCATIONAL TECHNOLOGY	37
..... SUPERVISOR DATE
TABLE 4: PERCENTAGE OF USE OF TECHNOLOGY IN GRADE ONE	39
TABLE 5: ENROLMENT	42
TABLE 6: RECOMMENDATIONS	45
TABLE 7: COMMENTS	47
TABLE 8: SPECIFIC OBSERVATIONS BY TRAINERS/FACILITATORS	49
TABLE 9: SUGGESTIONS	50
TABLE 10: RECOMMENDATIONS	51

LIST OF TABLES

	PAGE
TABLE 1: PERSONAL BACKGROUND OF TEACHERS	31
TABLE 2: MEDIA TRAINING	34
TABLE 3: THE USE OF MEDIA IN GRADE ONE	35
TABLE 4: LEARNERS' UNDERSTANDING OF THE LANGUAGE USED IN EDUCATIONAL TECHNOLOGY	37
TABLE 5: EXTENT OF USE OF TECHNOLOGY IN GRADE ONE	39
TABLE 6: ENROLMENT	42
TABLE 7: RECOMMENDATIONS	45
TABLE 8: COMMENTS	47
TABLE 9: SPECIFIC OBSERVATIONS BY TRAINER FACILITATORS	49
TABLE 10: SUGGESTIONS	50
TABLE 11: RECOMMENDATIONS	51

LIST OF FIGURES

	PAGE
FIGURE 1: EDUCATIONAL TECHNOLOGY AND LEARNER CENTREDNESS	35
FIGURE 2: EDUCATIONAL TECHNOLOGY FACILITATES TEACHING AND LEARNING	36
FIGURE 3: COLLABORATION BY TEACHERS USING EDUCATIONAL TECHNOLOGY	38

TABLE OF CONTENTS



	PAGE
ABSTRACT	(i)
ACKNOWLEDGEMENTS	(iv)
DECLARATION	(vi)
CERTIFICATION	(vii)
LIST OF TABLES	(viii)
LIST OF FIGURES	(ix)
CHAPTER 1 THE PROBLEM AND ITS BACKGROUND	1
BACKGROUND TO THE STUDY	1
STATEMENT OF THE PROBLEM	2
OBJECTIVES OF THE STUDY	2
RESEARCH QUESTIONS	3
SIGNIFICANCE OF THE STUDY	3
DELIMITATION OF STUDY	4
DEFINITION OF TERMS	4
CHAPTER 2 LITERATURE REVIEW	7
INTRODUCTION	7
THE NATURE OF CURRICULUM 2005	7
CATEGORIES OF MEDIA	8
FUNCTIONS OF EDUCATIONAL MEDIA	9
CRITERIA OF SELECTING GOOD EDUCATIONAL MEDIA	10
PRINCIPLES OF INSTRUCTION	11
MEDIA INTEGRATION IN LESSON PHASES	13
ADVANTAGES OF USING TEACHING MEDIA AND TECHNOLOGY	15
TEACHERS AND EDUCATIONAL MEDIA	15
PROBLEMS TEACHERS ENCOUNTER IN USING EDUCATIONAL TECHNOLOGY/MEDIA	16



THE NEED TO TRAIN TEACHERS IN USING EDUCATIONAL TECHNOLOGY/MEDIA	18
SHARING RESOURCES: THE IMPORTANCE OF TEACHERS TO COLLABORATE WITH EACH OTHER	20
THE NEED TO EMPOWER TEACHERS THROUGH MATERIALS DEVELOPMENT	21
CONCLUSION	23
CHAPTER 3 METHODOLOGY	25
INTRODUCTION	25
RESPONDENTS	25
SAMPLE	25
RESEARCH INSTRUMENTS	27
TRIAL-OUT OF INSTRUMENTS	27
DATA COLLECTION PROCEDURES	27
PROBLEMS ENCOUNTERED IN THE STUDY	28
CHAPTER 4 DATA ANALYSIS AND INTERPRETATION	29
INTRODUCTION	29
SECTION A: RESPONSES BY GRADE ONE TEACHER	30
SECTION B: PRINCIPALS' RESPONSES	41
SECTION C: RESPONSES BY TRAINER FACILITATORS	47
CONCLUSION	52
CHAPTER 5 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	53
SUMMARY	53
CONCLUSION	54
RECOMMENDATIONS	56
BIBLIOGRAPHY	61
APPENDIXES	65



BACKGROUND TO THE STUDY

With the dawn of the new democratic South Africa in 1994, the Government of National Unity has succeeded in uniting a fragmented education system. South Africa is now proud to have a unitary National Department of Education. Another significant milestone has been the introduction of Outcomes-Based Education (OBE).

As part of the OBE programme, the Government has embarked on Curriculum 2005, which heralds the new curriculum, which should have been implemented from Grade One to Grade 12 by the year 2005.

Media technology has a place in the development of lessons and meaningful learning activities in Curriculum 2005 classes. Bishop (1986:4), cites Havelock and Huberman, who declare that:

"...many innovations fail because they pay little heed to lessons that can be learnt from the process, particularly the fact that innovation is a matter of system change and system building within a social context."

It is thus imperative for teachers to implement innovative educational technology and learning materials in order to teach effectively.

Preparations to launch Curriculum 2005 began as early as 1995; the year 1998 saw its launch in Grade One. It is for this reason that the researcher is interested in the perceptions of Grade One teachers in the use of educational technology while implementing Curriculum 2005.

The focus of education has now shifted from the teacher to the learner -from teacher-centred to learner-centred teaching and learning. There has been a paradigm shift, from considering teachers as dominant figures, and providers of information and skills to facilitators. The

media or educational technology should be learner-centred.



RESEARCH QUESTIONS

STATEMENT OF THE PROBLEM

The following are the principal questions that served as a guide in addressing the above

There is acceptance of Outcomes-Based Education and Curriculum 2005. However, a concern raised by teachers [in 1997] was whether there would be sufficient learning and teaching support materials to help teachers in implementing the new curriculum.

Curriculum 2005?

Curriculum 2005 is being introduced whilst teachers are being retrained on how to implement it. In his publication, "Running out of time to train", Maseko (1997:5) cautions the Education Department on the implications of this approach for the effective implementation of Curriculum 2005. This is the concern of several other scholars and the public in general; and this study set out to address it. Whereas educational media accelerate learning if used appropriately, teachers resist using any, and instead use the bare minimum of teaching and learning aids where "chalk and talk" dominate the learning environment.

OBJECTIVES OF THE STUDY

The overall purpose of this research is to investigate the perceptions of teachers at the foundation phase (Grade One) towards the use of media in implementing Curriculum 2005. The researcher believes that the notion that teaching and learning media are only to be acquired ready-made is misleading. Both teachers and learners can improvise their own educational media, albeit to a limited extent. It is therefore an objective of this study to challenge teachers to implement educational media in a versatile manner in order to maximise teaching and the transfer of learning.

The study aims at achieving the following objectives:

1. to establish the meaning and nature of Curriculum 2005 ;
2. to investigate the perceptions that teachers of Grade One have about the use of educational media;
3. to identify the problems related to the implementation of Curriculum 2005 in Grade One;

RESEARCH QUESTIONS

The following are the principal questions that served as a guide in addressing the above objectives:

1. How is Curriculum 2005 understood and accepted by the teachers?
2. What is the perception of Grade One teachers towards media use in implementing Curriculum 2005?
3. Is the use of educational media indispensable in implementing Curriculum 2005?
4. Are teachers meaningfully integrating educational media in their lessons?
5. Do teachers get the necessary support from parents, pupils and other stakeholders in using educational media in their lessons?
6. What problems are encountered in using media in implementing Curriculum 2005 at this level?
7. What can be done to solve such problems?

SIGNIFICANCE OF THE STUDY

The researcher realises that there is a lack of information on the use of media in Curriculum 2005 since it has just been launched in South Africa; therefore the information generated by this study will be beneficial to teachers and others interested in Curriculum 2005.

The outcome of the study should contribute to the empowerment of teachers by making them feel confident and competent in integrating educational media in their lessons. It will also enhance enlightened debates on the use of educational media, in addition to bringing knowledge to teachers on the methods and strategies used in handling problems when implementing Curriculum 2005. Methods and strategies suggested in this study should help teachers in developing a positive attitude to the implementation of Curriculum 2005.

The results of this study may be helpful to the Minister of Education, administrators, regional directors, area managers, education specialists, curriculum developers, principals, teachers, and ultimately, the learners. The various stakeholders will thus know what to do in order to

empower teachers through workshops, training and retraining in integrating media into the lessons. It is also hoped that some of the findings from the study may be the basis of materials for seminars, conferences, workshops and further research related to Curriculum 2005.

DELIMITATION OF STUDY

This research is confined to the Northern Province in general and specifically to the Northern Region's Department of Education, also known as Region 3. It is basically limited to Grade One, where the implementation of Curriculum 2005 starts.

DEFINITION OF TERMS

For this study, the following terms are used as defined below:

Educational technology

Education renewal strategy (a discussion document, June 1991 :64) regards "educational technology" as "all educational media which are purposefully utilised in the teaching-learning situation, including both hardware and software." Various forms of educational technology were evaluated and ranked as follows in terms of effectiveness and ease of use: mass printing (newspaper print), quality printing (text books), audio cassettes, video cassettes, broadcast (television and radio) and computer programmes.

Media

The term "media" refers to any person or object that can be used to convey a message or anything that facilitates the acquisition of information by the learner. The term "medium" (singular) denotes a mediator acting among the various parties involved in a communication situation. A medium is described as any person, instrument or object which conveys the message from one party to the other during the act of communication. Freyzen & Briel (1989:1)

Educational media

Educational media are any persons or objects that are used deliberately to put across (communicate) learning content in the didactic situation. In most cases, educational media consist of hardware and software, the one being useless without the other; for example,

transparencies are displayed by means of an overhead projector; a video programme is presented by means of a video player and monitor, and so on. Educational media may thus be described as anything that facilitates the acquisition of information by the learner. Freysen & Briel (1989:1)

Improvised media

In this study, the two terms -"educational technology" and "educational media" -will thus be used interchangeably. Some scholars regard "educational media" as a comprehensive term to refer to both teaching and learning media. Blignaut (1994:8)

Teaching media

Teaching media are referred to as media used by the teacher to convey the message, that is, media used by the teacher in putting across the message. Thus, teaching media are used by the teacher in the teaching-learning situation, that is, they are structured objects which the teacher uses to help the learner to interpret reality. Freysen & Briel (1989:2)

Learning media

"Learning media", on the other hand, are used by the learner in the teaching-learning situation: they are structured objects which the learner uses in the teaching-learning situation. Learning media are employed by the learner to learn with. Freysen & Briel (1989:2)

Human media

When the teacher conveys the message by means of words and/or body language, he himself becomes a medium, and is known as a human medium. From this it can also be deduced that the teacher is also a medium as he is a route along which learning content is put across. Freysen & Briel (1989:3)

Non-human media



When objects such as photos and transparencies are used to convey the message, they are referred to as non-human media. Freyssen & Briel (1989:3)

Improvised media

When an object is used differently from its normal use as a medium to convey a specific message, such media are referred to as improvised media; e.g. when man uses a pencil to demonstrate the force of gravity, the pencil is used as an improvised media. Blignaut (1994:8)

change, the authors of Outcomes-Based Education (OBE) and Curriculum 2005. The authors of OBE are discussed. The chapter is divided into the following sections: section one deals with the nature of curriculum 2005, then follow in order, sections on the categories of media, categories of educational media, criteria for selecting good educational media, principles of selecting media integrative in lesson plans, advantages of using teaching media and why teachers and educational media, and problems teachers encounter in using educational technology.

Finally, the book is the need to train teachers in using educational technology and sharing resources, the importance of teachers to collaborate with each other in using educational technology, the need to empower teachers through materials development, and lastly brief conclusions on the study.

THE NATURE OF CURRICULUM 2005

Curriculum 2005 is basically about lifelong learning. This new curriculum is not only a more effective approach to learning than the old South African curriculum, but it also contributes to personal growth for life in a democratic society. With Curriculum 2005 there is a change in the way we learn from a content-based to an Outcomes-Based Education. Curriculum 2005 is a new way of learning. Thus Curriculum 2005 is focused on the adoption of a new way of learning which revolves around the concept of Outcomes-Based Education. The main objective of this new curriculum is a culture of lifelong learning. Those who are learning under the umbrella of Curriculum 2005 will be encouraged to continue their learning, not only at school, but throughout their lives (Curriculum 2005, p.6).

LITERATURE REVIEW

INTRODUCTION

This chapter examines the relevant literature dealing with challenges facing the South African education system - the main problems regarding resistance to change, overcoming resistance to change, the attributes of Outcomes-Based Education (OBE) and Curriculum 2005. Characteristics of OBE are discussed. The chapter is divided into the following sections: section one deals with the nature of curriculum 2005, then follow in order, sections on the categories of media, functions of educational media, criteria for selecting good education media, principles of instruction, media integration in lesson phases, advantages of using teaching media and technology, teachers and educational media, and problems teachers encounter in using educational technology/media.

This study also looks at the need to train teachers in using educational technology and sharing resources; the importance of teachers to collaborate with each other in using educational technology; the need to empower teachers through materials development, and lastly brief concluding remarks on the study.

THE NATURE OF CURRICULUM 2005

Curriculum 2005 is basically about lifelong learning. This new curriculum is not only a more effective approach to learning than the old South African curriculum, but it also contributes to preparing learners for life in a democratic society. With Curriculum 2005 there is a change in the education system from a content-based to an Outcomes - Based Education. Curriculum 2005 endorses the concept of lifelong learning. Thus Curriculum 2005 is focused on the adoption of a new educational approach which revolves around the concept of Outcomes- Based Education (OBE). The overall objective of this new curriculum is a culture of lifelong learning. Those whose learning takes place under the umbrella of Curriculum 2005 will be encouraged to become active learners, not only at school, but throughout their lives (Curriculum 2005, p.6).



According to Van der Horst & Mc Donald (1997:48), outcomes are the results of learning processes and refer to knowledge, skills, attitudes and values. Learners should be able to demonstrate what they understand and should be able to apply the desired outcomes within a certain context such as a certain subject or learning area. In the South African OBE system there are three different kinds of outcomes, namely:

1. Critical Crossfield outcomes
2. Specific outcomes C
3. Learning area outcomes (Department of Education 1997:16,32).

Critical Crossfield outcomes are generic, cross curricular, cross cultural outcomes. Van der Horst & Mc Donald (1997:48) note that there are eight critical outcomes. These outcomes are general ones designed by the South African Qualifications Authority and apply to all the learning areas.

Specific Outcomes are contextually demonstrated knowledge, skills and values, reflecting critical cross field outcomes. These are outcomes linked to the learning area outcomes in a specific learning area (Curriculum 2005 Lifelong learning for the 21st Century, p.32).

Learning area outcomes are outcomes related to a specific learning area. For example, a learning area such as technology has its own outcomes. The outcomes should be easily attainable if proper materials are used. Instead of teaching the traditional subjects in isolation from each other, Outcomes Based Education endorses a more holistic approach where integration of learning content is emphasised. (Van der Horst & Mc Donald, 1997:48)

CATEGORIES OF MEDIA

There are two basic categories of media: intrinsic and extrinsic media.

Intrinsic media are personal in nature, consisting of verbal language, as well as body language, that is, all movements and physical characteristics of a person. Extrinsic media can be classified into visual media, audio media and audio-visual media. Many of these media consist of media hardware and software, e.g. the overhead projector (OHP) as hardware and its transparencies as software.

All visual media are interpreted through the sense of sight. The learner sees the media in question. These are the most widely used media in the school situation. Within this group a further distinction could be made between projection and non-projection media (Freysen & Briel, 1989: 15). Examples of projection visual media include slides, film strips, overhead projectors, and non-projection visual media include chalkboard, charts, bulletin boards, maps, wall charts and several others.

Media transmitted through the sense of hearing are known as audio/auditory media. Auditory media are the non-human media that convey the message by means of sound, which is perceived through the means of hearing, the ear (Hygen,1994:33). Examples of audio media are record player, tape recorder, radio, etc.

The media that involve both hearing and sight are known as audio-visual media (transmitters of sound and images). These media are interpreted through the sense of sight and hearing simultaneously. These may include television, video, drama and concerts, demonstrations and computer programmes.

FUNCTIONS OF EDUCATIONAL MEDIA

Educational media can be used strategically or tactically to illustrate a point, to open up a subject, or to draw attention to an important fact. The main function of media is to convey the learning content. Besides this function, media can

- awaken interest in the learning content;
- help to retain the learners' attention;
- involve the learners actively in the teaching process;
- ensure that the message is conveyed in the same way to all learners;
- enable learners to experience what they otherwise could not;
- focus the learners' attention on specific aspects of the learning content;
- transport learners to places to which they will never go (Hygen 1994:4).

The teacher is encountered with a situation where he/she needs to decide which media to use. There are various criteria to be considered when selecting media for use. The following criteria for selecting good educational media are suggested by Rowntree (1985:182):

- Consider the objectives.
- Knowledge, skills, attitudes.
- Learners' preferences.
- Familiarity.
- Practicality and cost.
- A availability .

Selected media have thus to comply with these criteria in order to be properly integrated into a lesson. Freysen & Briel (1989:241) observe that:

...media constitute an indispensable part of the teaching, learning occurrences; therefore, in order to utilize media successfully, it is essential that the best medium or media be selected and then integrated into the teaching-learning situation in a didactically responsible manner.

According to Freysen & Briel (1989:32) the following criteria are also applied in the selection of learning content:

- validity
- meaning
- usefulness
- significance
- relevance
- interest and needs of learners.

Van der Horst & Mc Donald (1997:161) emphasize that in selecting a medium for use these factors should be considered:

- the learner and his level of development;
- the objective to be achieved;
- the relevance of the aid;
- the significance of the aid;
- the impact the aid will have on raising the learning level;
- the financial cost;
- the availability of materials;
- the time factor in making the aid;
- evaluation of the effectiveness of the aid.

Van der Horst & Mc Donald (1997: 161) argue that:

The teacher's selection of these materials should be closely linked to the general thrust of the lesson... such resources should be tied to the age and ability range in the class, the time available, the teaching strategy which is adopted, the layout of the classroom and the likely reaction of the learners.

Many lessons are less than successful because inadequate and inappropriate resources are prepared and used. In view of this Van der Horst & Mc Donald (1997:161) recommended that the materials and media selected by educators should be

- accurate,
- well laid out and readable,
- interesting and varied,
- linked to the content, objectives and intended learning outcomes of the lesson, and
- used constructively.

PRINCIPLES OF INSTRUCTION

With regard to educational media usage, there are five principles that can help to establish whether the right things are done correctly or the right way. The five principles that guide the appropriate use of educational media are: relevance, significance, perception, activity and

individualisation. Freyksen *et al* (1989), Kruger *et al* (1988), and Duminy *et al* (1991) all support these principles. They are summarised as follows:



RELEVANCE

The media must be relevant. The question should always be asked: can the lesson be taught better without this media? The use of educational media must raise the success level in the instructional situation. The media must lead to more successful learning, helping the teacher to achieve the intended objectives. With irrelevant media, the learner will be distracted. Distraction leads to unsuccessful learning. The media used must be within the experience of the learner. Relevance of an aid must mean that the learner's level of development must be suited to his age group: some suited to younger children and others to older children. For instance, the teacher should never use sticks or stones to teach Grade 8 maths; at the same time the teacher should not use a calculator in teaching Grade Ones.

SIGNIFICANCE

Educational media used should be significant. A significant medium will have impact on the learner, who will be impressed and motivated by its part in the learning situation. If, for instance, a transparency is not clear or is poor, then the concentration and attention of the learners will be distracted. On the other hand, a clear, attractive chart impresses the learner, and he is excited and motivated to concentrate on what is being said.

PERCEPTION

Perception is found within the learner. The learner must perceive what is being taught. In teaching and learning situation, all the five sense organs need to be employed: sight, hearing, touch, smell and taste. The final outcome of learning is that what the learner perceives through his sense organs is remembered (Duminy & Sohnge 1991:33).

ACTIVITY

Learning is an individual activity. Nobody can learn on behalf another. Groene Wald, in her speech, *Instructional Video Programmes* (1994:97), puts it thus: "It is indeed a fact that the learner only learns operations by performing them." She adds, "People remember 20% of what they see; 40% of what they see and hear; 80% of what they hear, see, and do." This view is supported by the popular maxim, "I see, I forget; I hear, I remember; I do, I know." Learners thus need to be actively involved in their lesson in order to learn effectively and successfully. (see Appendix G).

INDIVIDUALIZATION

Each learner is an individual with different abilities and needs. The recognition of differences in individual learners is very important. Teaching and learning media must thus provide for individual differences. They should motivate all the learners. Each individual learner must be given a chance and enough time to learn by means of the medium concerned. Duminy and Sohngé (1991:22) contend that "the educational principle of individualisation is based on the idea that every child must be assisted to develop according to his own capabilities."

MEDIA INTEGRATION IN LESSON PHASES.

Media are indispensable in the teaching and learning situation. It is therefore important to determine how the media can be integrated into various phases in the course of learning. There are three phases in the progress of a lesson: the introductory phase, the unlocking phase, and the application phase (Freysen & Briel, 1989:38). Thus the teacher has to select media responsibly with a view to integrating them in a planned lesson.

INTRODUCTORY PHASE

In the introductory phase of a lesson, the teacher has one or more of the following objectives in mind:

- arousing the learner's interest;
- linking up with the existing knowledge;

APPLICATION PHASE /CONCLUSION PHASE

According to Freysen and Briel (1989:37), during this phase one checks whether the content has been mastered. Here the media no longer bear the information but can be used to evaluate the success of the lesson. For example, Kruger & Muller (1988:106) state that:

During the evaluation procedural moment, with assignment as the mode of instruction, the pupils are supplied with sketches, illustrations or maps for which they have to supply captions, explanation or other activities, either as homework or to be completed during the rest of the lesson period.

ADVANTAGES OF USING TEACHING MEDIA AND TECHNOLOGY.

The use of teaching media and technology is necessary to make teaching more effective. The document *Implementing Curriculum 2005, Grade 1* (1998:2) puts it thus "Theory without practice is sterile. Practice without theory is blind." The advantages of using teaching media and technology, as observed by Kruger and Muller (1988: 103-106), are as follows:

- Use of media motivates the pupils.
- Use of media provides variety.
- Use of media compensates for language deficiency.
- Use of media encourages active participation.
- Use of media reinforces learning.
- Use of media provides for the learning needs of individual pupils.
- Use of media supplements the spoken word.

TEACHERS AND EDUCATIONAL MEDIA

Every teacher should know that just as every child is different, so are children's learning styles different. Children learn in different ways and at different rates. Hence the need to use a variety of educational media as a form of teaching support. Indeed the use of educational technology can provide the educational break-through we have been searching for, for many years.

Unfortunately, when Grade 1 teachers hear of the word "technology," they sometimes feel threatened and regard it as a scare-crow.

Educational technology can complement and support the teacher in the educational process, but it cannot replace the teacher. As the Education Renewal Strategy Discussion document (1991:2) cautions, "Educational technology may not be seen as a solution to all educational problems. The teacher is indispensable as a planner, motivator, guide and evaluator. Therefore the role of the teacher should not be diminished." Thus Eric Meyer (in Energos, 1983:61) says

"... the greatest contribution that educational technology has made to education is to underline, repeatedly, the worth of the individual both as teacher and as student."

When properly used educational technology certainly improves the quality of teaching as well as learning. Experience world-wide has shown that the effective use of educational technology is totally dependent on active teacher support. Educational technology is also dependent on the availability of the hardware and software needed and on the ability of the teacher to use such equipment and material (Education Renewal Strategy, Discussion Document, June 1991 :63,64,66).

PROBLEMS TEACHERS ENCOUNTER IN USING EDUCATIONAL TECHNOLOGY/MEDIA

Unlike business and industries, schools are rather slow to embrace and apply modern technology. Derek (1985:241) states in good humour:

Not surprisingly, then, that innovation in education proceeds at a snail's pace. Nor can we be optimistic that a snail will move in the right direction. Teachers tend to teach as they were taught making use of the most basic technologies (resources) available to them, i.e. they stick to the *status quo*.

Inequalities arising from poverty, remoteness, and industrial centres and big business centres compound this problem, especially in the rural areas. In a report of the Northern Province, Department of Education, Arts, Culture and Sports 1998, Mukhavhuli reports seventy nine percent of the schools are without electricity, 48 % are without water, 68% are without telephones. These are the most basic infrastructure without which modern educational technology cannot be used. Unfortunately in the Northern Province, few rural schools have electricity, and such means of communication as telephones, faxes, and computers are unheard of. Farrant (1997:291) sums up the problems encountered by teachers regarding basic educational resources as follows:

- Insufficient practical training results in teachers failing to recognise the potential of many simple teaching aids available at very little cost or how to use them to the full where these are available.
- The attraction of sophisticated audio-visual aids has caused some teachers to despise basic teaching aids.
- Some teachers, instead of understanding that teaching and learning aids are for making teaching more effective, have the idea that they make the teachers life more effective. Consequently they tend to give up as soon as they find what hard work it is planning their use.
- Ignorance of available media and lack of expertise.
- Lack of interest and initiative.
- Embracing traditional methods at the expense of newer methods because of misplaced confidence.
- Lack of accommodation of teaching media.
- Lack of technical knowledge and support systems.
- The complexity of some audio-visual equipment tends to frighten teachers who have had no practical training in its application so that much of the equipment supplied to schools is grossly under-used.
- Similar problems are also cited by Monobe (1991), Metowich (1989), Briel (1976), Molstad (1975), Muller (1989) and Rowntree (1985).

THE NEED TO TRAIN TEACHERS IN USING EDUCATIONAL TECHNOLOGY/MEDIA

Curriculum 2005 calls for a paradigm shift from a content-based teaching and learning to one that depends on outcomes. In the old education system, the teacher was a transmitter of knowledge, whereas in the new system the teacher/ educator is regarded as a facilitator, or guide. Teachers, therefore, need to be trained to be relevant to the new approach. Teachers need intensive training if they need to progress. In order to emphasise the need to train teachers in the use of educational technology, Prinsloo & Criticos (1991: 228) propose the need "to develop training courses for the teachers and intermediaries both to increase their own knowledge and understanding of the media and to train them in appropriate teaching methods."

Old-fashioned teachers cannot cope with the new strategies. Therefore, retraining is necessary. It is thus, the duty of Department of Education to train these teachers. Prinsloo & Criticos (1991: 229) state the problem thus

The mood of South African teachers now faced with the challenge of teaching media education is generally one of concern. For most teachers, this is a new field. There are very few local resources, and teachers probably have not had any media education in their teacher training or subsequent in-service training.

In his speech, at the University of Stellenbosch, "Higher Education Media Services in a changing South Africa: *Are we doing the right things right?*" (1994, April p. 32), Hugo (1994:32) says, "A factor that we must be prepared to face and respond to sensibly is that we are part of Africa and that media centres have to play a more dynamic role in the upliftment of the underdeveloped parts of this continent, at least within South Africa itself."

Rowntree (1985: 233) echoes the point when he notes that "...they (teachers) will need sufficient educational technology skills to play an active and critical role in curriculum innovation. Educational technology therefore offers solutions to many educational problems. One of the

biggest problems in the promotion of media use is the inability of teachers themselves to integrate media in instructional lessons."

Teachers should not only produce different teaching media or learning resources; they should be helped to be more competent in using those media effectively in their lessons. In dealing with the issue of the need for teachers to be trained in the use of educational technology, those in power should remember that successful teaching and learning depend on the effective and efficient use of resources.

The New Teacher, volume 5, No.1. (1996: 7) makes a similar point: "...they should deal head on with the challenges of Curriculum 2005. They should design vital training programmes and materials for teachers."

Education Renewal Strategy (1992:68) also contends that "Experience worldwide has shown that the effective use of educational technology is totally dependent on the teacher's active use." Therefore, the need to train teachers in this regard should be seriously considered. If teachers are adequately trained in the use of educational technology, there will be success in the classroom. It is then that efficiency and effectiveness in the whole process of teaching and learning can be ensured. Hugo (1994:33) explains these two concepts:

Efficiency means to do things right, on the other hand *effectiveness* refers to being relevant - doing the right things. Success is determined by both efficiency and effectiveness. The aim thus is to do the right things right. Hence the need for teachers to be trained in order to be both efficient and effective.

Successful application of educational technology depends upon people: educational technologists and teachers. Meyer (1983:62) stresses the need to train these people to remove known constraints. Teachers should be lifelong learners if they have to integrate educational technology successfully in their teaching. According to Bishop (1986:183),



It is quite plain that no country using traditional methods alone can hope to make education universally available or to train the number of qualified teachers needed to satisfy this growing demand for education, no matter how long the period.

This statement highlights the need for innovative teaching which cannot ignore training of teachers and the use of media. Emerson (1993:45) contends that:

...teachers cannot be expected to commit time to media education unless they have proper resources and training... there is a need for INSET courses that go beyond technical familiarity and move towards different levels of media education training with a focus...

Teachers thus need to be trained to make use of new technology in education and the employment of all available resources. Industry and business succeed in implementing new technology because of training on a massive scale. Thus in order for Curriculum 2005 to succeed adequate training and retraining needed on the part of teachers should be done.

SHARING RESOURCES: THE IMPORTANCE OF TEACHERS TO COLLABORATE WITH EACH OTHER.

It is quite imperative for teachers to collaborate with each other if Curriculum 2005 is to succeed. Unfortunately, the notion of sharing resources appears to be foreign among teachers. Teachers are isolated in their classrooms. Those who know how to go about the new system carry on using the knowledge and skills they have, while their colleagues watch on. The media education teacher needs to be engaged in discussions and conversations with other people with whom he might be collaborating. Teachers should begin to break through their isolation in order to establish a practice of collective research. There should be facilitation of teacher networking. Prinsloo and Criticos (1991:298) suggest that "Within each country, media teacher groups should be established..., for exchange of ideas, mutual support, lobbying, etc."

Dr. Kirstan, in his speech, 'Collaborational networking of audio visual units' (1994:47), describes collaboration as "...a partnership, a means to expand the range of personal corrections, contact with a new set of colleagues and professional opportunities and growth." Teachers therefore need to be willing to share ideas.

Dr. Kistan (1994:52) explains that "people who involve themselves in collaboration generally enjoy their participation and have high hopes that their partnership will make education more worthwhile and meaningful, thereby benefitting society as a whole." Teachers can surely improve their teaching if they really collaborate with one another. Several strategies for teacher collaboration have been suggested:

- Teachers should sit down and discuss some ideas about teaching in order to get effective results. They have got-to exchange ideas, support one another, help one another and talk about innovations. Instead of criticizing and gossiping, they need to be involved in discussing important educational issues.
- OBE encourages team work. Teachers need to plan, design and prepare teaching materials together. The teacher should not become an island. Teachers should break the walls of privatism. The teacher who fails in one aspect of the work can get help from another person. Teachers need to make collective decisions.
- Class visits should be encouraged. Teachers need to make class visits in order to see how colleagues perform in the classroom. Teachers should observe in order to copy something good or new and apply it in their own lessons.

THE NEED TO EMPOWER TEACHERS THROUGH MATERIALS DEVELOPMENT.

Since teachers are the basic tools in education, there is a great need for them to develop innovative classroom materials. Therefore, there is a need to empower teachers in this regard. With the launching of Curriculum 2005, the Government promised to supply schools with resource materials, but because of financial constraints, the government is unable to fulfil this promise. The teacher should not therefore fold hands and relax; he has to improvise: he has to

be creative and initiative. Teachers can thus be empowered through workshops, conferences, seminars and discussions in this respect.

Prinsloo & Criticos (1991 :218) observe that :

In our work we are acutely aware of the disempowerment of teachers within the South African Educational hierarchy...

The empowerment of teachers should thus be regarded as vital. They add to say

...For us then, the involvement of teachers in materials development, needs to be seen in the context of an overall strategy towards teacher empowerment.

Prinsloo & Criticos (1991 :222) further note that "There is generally lack of confidence and skill (as well as resistance) amongst many teachers to break away from transmission teaching and dependency on the text book..." They are also of the opinion that "...we need to bring teachers together to build their confidence and skills in developing and evaluating classroom material.

Van der Horst & Mc Donald (1997:160) maintain that

The time and attention given to the creation and presentation of various materials and media may often mark the success or failure of a lesson. For learners these resources are often the lens through which they view the subject.

This statement strengthens the need to empower teachers through materials development. It makes the teacher the most important resource in an OBE class.

For teachers to be involved in the provision of educational resources, they should not only be regarded as simply disseminators of resources, but they should be involved in the production and implementation of educational resources. Prinsloo & Criticos (1991 :225) rightly point out that "...teachers will only realise their educational potential when they are involved in the provision of educational resources."

Many of the modern teachers are disinterested in, and distant from, the production of educational resources, let alone the implementation or integration of media in their lessons. Hence the need to empower them. The teachers therefore need to be resourceful as well as creative. The teacher must be able to create resources himself. This is what OBE promotes, that both the teacher and the learner can and should produce their own educational resources.

CONCLUSION

Based on the above discussion, the following conclusions can be made:

On page 30 of *Curriculum 2005. Implementing OBE- 4, philosophy-lifelong learning for the 21st Century*, we are told that "Curriculum 2005 is a bold move. It is based on a vision of a future South Africa and of education's vital role in transformation."

The success of Outcomes-Based Education in South Africa will be largely dependent on the commitment and skills of its teachers, hence the need to train these teachers on the use of educational technology in implementing Curriculum 2005. In support of this statement, the view of Dreyer (1997:20) comes in handy:

The successful implementation of the new system will largely if not almost entirely depend on the teachers who have to implement it. If our teachers are well trained and well motivated, learners will reap the benefits that the new education system can provide. The new system challenges teachers to be creative and innovative and to really make a difference in the lives of learners- - -

In this new approach, the focus of education has now changed from the teacher to the learner: from teacher-centred teaching and learning to learner-centred teaching and learning. It is thus imperative for teachers to have innovative educational technology and learning materials for meaningful results. Teachers should be active agents for Curriculum changes.

It has been noted in this study that the proper use of educational technology can provide the educational break-through we have been pursuing, for many years. Thus makes the teacher the

most important resource in an OBE class, and the child the most important target. With the Department of Education playing its part in providing resources in "the form of classrooms, equipment and training, teachers doing their part in embracing the new concept with interest and hard work, and children actively playing their part, OBE is bound to succeed. South Africa and its future citizens will thus be the great winners.

This investigation was conducted in the Northern part of the Northern Province. The Vuwani and Tlokoeng areas were involved.

The method of study included data collection from both primary and secondary sources.

Relevant literature, including books, magazines, articles, newspapers, reports and policy documents, as well as participation in conferences, were essential parts of the secondary sources.

The primary source of data collection comprised structured (closed-ended) and unstructured (open-ended) questionnaires administered to Grade 1 teachers, as did interviews with principals and trainer-facilitators. The questionnaires were distributed to schools by the researcher herself and she went back to collect them. Some principals and circuit managers also offered to ease the process by helping with the distribution of some questionnaires – a total of eighty questionnaires to Grade One teachers.

Respondents

The respondents of this study comprised Grade One teachers in public and private schools that piloted Curriculum 2005 in the Northern Region of the Northern Province.

Principals and trainer-facilitators also formed part of the respondents. Schools from both rural and urban areas were included.

Sample

The sample was made up of three different groups:

The first group consisted of Grade One teachers selected from lower primary schools in Tlokoeng and Vuwani areas.

METHODOLOGY

INTRODUCTION

This investigation was conducted in the Northern part of the Northern Province. The Vuwani and Thohoyandou areas were involved.

The method of study included data collection from both primary and secondary sources.

Relevant literature, including books, magazines, articles, newspapers, reports and policy documents, as well as participation in conferences, were essential parts of the secondary sources.

The primary source of data collection comprised structured (closed-ended) and unstructured (open-ended) questionnaires administered to Grade 1 teachers, as did interviews with principals and trainer-facilitators. The questionnaires were distributed to different schools by the researcher herself and she went back to collect them. Some principals and circuit managers also offered to ease the process by helping with the distribution of some questionnaires - a total of eighty questionnaires to Grade One teachers.

Respondents

The respondents of this study comprised Grade One teachers in public and private schools that piloted Curriculum 2005 in the Northern Region of the Northern Province.

Principals and trainer-facilitators also formed part of the respondents. Schools from both rural and urban areas were included.

Sample

The sample was made up of three different groups:

The first group consisted of Grade One teachers selected from lower primary schools in Thohoyandou and Vuwani areas.

The second group consisted of twenty principals randomly selected from participating schools.

The third group consisted of ten trainer-facilitators from Region Three - basically Vuwani, Mutale, and Thohoyandou inspection areas.

Since interacting with all the Grade One teachers was impossible, given the vastness of the region, the researcher selected a sample of the population from the Vuwani and Thohoyandou areas. To shed more light on the research problem, the investigation also sought information from curriculum advisors and Curriculum 2005 trainer-facilitators and principals of lower primary schools.

The respondents and sample were determined after considering four reasons:

First, it was realised that Grade One teachers would give more reliable information since they were directly involved in implementing Curriculum 2005 at the foundation level.

Second, principals of schools might give reliable information since they were to oversee the implementation of Curriculum 2005 (OBE) in their schools. The principals were expected to have relevant information as far as the use of educational technology in the implementation of Curriculum 2005 was concerned. The principals are responsible for the buying, provision or supply of educational resources.

Third, trainer-facilitators were also included in the study because they were expected to be knowledgeable about Curriculum 2005. They are directly involved with Grade 1 teachers. They oriented the Grade 1 teachers on Curriculum 2005 through workshops and seminars: they were involved in the training of teachers on OBE and Curriculum 2005. Trainer-facilitators are also involved in the follow-up sessions in the different schools to see if teachers were really applying the OBE approach in their lessons.

Trainer-facilitators are aware of the strengths and weaknesses of OBE and teachers, and their contribution towards the use of educational technology in implementing Curriculum 2005 should be convincing.

Finally, to avoid bias, schools from both advantaged and disadvantaged areas were selected. The involvement of both public and private schools was also considered.

RESEARCH INSTRUMENTS

Two research instruments were used for data collection. Questionnaires were designed to obtain information from Grade One teachers, while interview schedules solicited data from principals and trainer-facilitators. These instruments were designed and tried out for purposes of this study by the researcher (see appendices C, D and E).

TRIAL - OUT OF INSTRUMENTS

The purpose of a trial-out was to be able to refine the items. The researcher conducted the trial-out of the study in Region 4, where she sent questionnaires to assess whether they were up to standard in terms of validity and reliability. Furthermore, the researcher wanted to determine whether each item was clear and precise in meaning. The questionnaires and interview schedules went through the necessary changes and adjustments before they were finally administered to Grade One teachers, principals and trainer-facilitators.

DATA COLLECTION PROCEDURES

Permission to conduct the research at the different schools was obtained from the Regional Director for Education, Arts, Culture and Sports in Region Three (Appendix A). Since Region Three is vast and has diverse population covering regional and cultural dynamics, the researcher realised that it would be helpful to employ random samples that were stratified.

From the regional office a list of lower primary schools in Region Three (Vuwani and Thohoyandou inspection areas) was requested. The researcher picked up every second school until the required number was obtained from rural and urban, private and public schools. At each school visited, the researcher introduced herself, handed the letter from the Regional Director to the school principal. A letter was also given to the principals asking for permission to conduct research at their schools (see Appendix B). A following visit to the school after three days to collect the questionnaires was arranged.

In some instances, however, the researcher got help from the circuit managers who volunteered to circulate the questionnaires to their schools. Thereafter the questionnaires were collected from the circuit managers.

PROBLEMS ENCOUNTERED IN THE STUDY

- Although the Regional Director gave permission, some principals made it difficult for the researcher to administer questionnaires at their schools. Nevertheless, through negotiations, they ultimately agreed.
- Some teachers were not confident enough with the use of educational technology and Curriculum 2005 and were therefore reluctant to be involved in the completion of the questionnaires. The researcher was able to persuade them to agree to collaborate.
- Some schools are situated in remote areas where roads are bumpy, rocky, stormy and slippery when it rains. It was thus difficult to reach such schools, but the researcher made her way through.
- In some instances, the researcher could not get hold of the respondents and had to make some follow-up visits. This was quite strenuous.
- Due to problems encountered, only seventy-four out of the original eighty teachers returned the questionnaires. With 92,5% returns the researcher was quite satisfied.

SECTION B: Principals' responses

This section presents an analysis of principals' responses. The researcher interviewed 20 primary school principals in the Thoboyandeni and Yuwani districts.

SECTION C: Responses by trainer facilitators

This section presents the analysis and interpretation of the responses from trainer-facilitators. Ten trainer-facilitators from Vuwani and Mutale area officers also participated in the interviews. The data is analysed qualitatively; the presentation will thus be descriptive.

TEACHERS' PERSPECTIVES ON CURRICULUM 2005: DATA ANALYSIS AND INTERPRETATION

INTRODUCTION

The above question was asked in order to find a way of classifying the responses according to gender. Information on qualifications was sought in order to determine if they are gender biased. Information on qualifications was sought in order to determine if they are gender biased. Information on qualifications was sought in order to determine if they are gender biased.

In this chapter, we present and analyse the responses to the questionnaires for Grade One teachers and interview schedules for both principals and trainer facilitators. As stated in the previous chapter, 74 out of 80 (92,5%) educators responded to questionnaires; 20/20 (100%) principals were available for interviews, as were 10/10 (100%) trainer-facilitators.

The data analyses and interpretation are mainly qualitative, supported by tables, diagrams and percentages; hence the presentation will be descriptive.

In each section findings are presented first, followed by the researcher's interpretation.

The format in this chapter is as follows:

SECTION A: Responses by Grade One teachers.

Of the questionnaires distributed to 80 Grade One teachers in both public and private schools that piloted Curriculum 2005 in the Northern Region of the Northern Province, 74 educators responded.

SECTION B: Principals' responses.

This section presents an analysis of principals' responses. The researcher interviewed 20 primary school principals in the Thohoyandou and Vuwani districts.

SECTION C: Responses by trainer facilitators.

This section presents the analysis and interpretation of the responses from trainer-facilitators. Ten trainer-facilitators from Vuwani and Mutale area officers also participated in the interviews. The data is analysed qualitatively; the presentation will thus be descriptive.

SECTION A: RESPONSES BY GRADE ONE TEACHERS

Items and Groups	Frequency	Percentage (%)
TEACHERS' PERSONAL BACKGROUND		
Gender:		
<p>Teachers were requested to indicate their ages, gender, qualifications and teaching experience. The above question was asked in order to find a way of classifying the responses according to some background criteria of the teachers. The researcher asked for age, for instance, in order to determine whether the Grade One teachers who are young, energetic and enthusiastic educators are likely to be more motivated and interested in the changes than their older colleagues who are about to retire. The researcher also asked for gender in order to see if the Department is not gender biased. Information on qualifications was sought in order to determine if they are qualified enough to teach this level. Lastly the information regarding teaching experience was asked to check whether their experience may interfere with the new curriculum approach or whether such experience will be beneficial to the introduction of Curriculum 2005.</p>		
No response	1	1.4
B.A	1	1.4
B.A.Hd	1	1.4
B.Sc	0	0
B.A (Hons)	1	1.4
B.Ed	0	0
M.Ed	1	1.4
No response	13	14.9

The following table reflects the teachers' responses specifically related to teachers' personal background.

Table 1 : PERSONAL BACKGROUND OF TEACHERS

Items and Groups	Responses	
	Gender	Percentage (100)
Gender:		
Males	6	8,1
Female	66	89,2
No Response	2	2,7
Age:		
25-30	2	2,7
31-35	14	18,9
36-40	12	16,2
41-45	18	24,3
46-50	14	18,9
Above 50	13	17,5
No response	1	1,4
Academic Qualifications		
Std.10	47	63,5
B.A	1	1,4
B.A.Ed	8	10,8
B.Sc	0	0
B.A (Hons)	3	4,0
B.Ed	4	5,4
M.Ed	0	0
No response	11	14,9

The results show that majority (89,2%) of the respondents were women. In fact, it appears that the majority of Grade One teachers in the area of study are females. However, the few male teachers at Grade One level have been duly represented in this study, and that their opinions have influenced the results.

While different age groups were represented, a single majority (24%) of respondents fell in the age category of 40 - 44 years. It would appear that those teaching Grade One are usually experienced teachers above 40 years old. It would be a good challenge to see how seriously

Professional Qualifications:		
STD	5	6,8
PTD	21	28,4
SEC	3	4,0
UED	4	5,4
B.A.Ed	8	10,8
JPTC	4	5,4
PTC	13	17,6
JPTD	4	5,4
HPTC	1	1,4
HDE	3	4,0
No response	8	10,8
Teaching Experience in Grade One:		
1-5 years	25	33,8
6-10 years	25	33,8
11-15 years	6	8,1
16-20 years	3	4,1
21-25 years	2	2,7
Over 25 years	4	5,4
No response	9	12,1
Total	74	100

The results show that majority (89,2%) of the respondents were ladies: In fact, it appears that the majority of Grade One teachers in the area of study are females. However, the few male teachers at Grade One level have been duly represented in this study, and that their opinions have influenced the results.

While different age groups were represented, a slight majority (18%) of respondents fell in the age category of 40 - 44 years. It would appear that those teaching Grade One are usually experienced teachers above 40 years old. It should be a good challenge to see how seriously

teachers at this age may engage in changes in education since they are in the middle of their working life.

Regarding the academic and professional qualifications the findings are not particularly encouraging. A high percentage of respondents (64%) have Matric as their highest academic qualifications, while over quarter of the respondents only hold the PTD (Primary Teachers' Diploma) as their highest teaching qualification. This is an indication that the majority of Grade One teachers in the area of study are not highly qualified both academically and professionally.

These teachers need to upgrade their qualifications if they are to be expected to cope with modern changes and demands in education.

On the issue of teaching experience in Grade One, the results show that most of the educators have some experience. Some teachers (25 = 33.8%) have little teaching experience (1 -5 years). This could have a negative impact on the way they present the lesson. Another 25 respondents (33.8%) have experience which ranges between 6 and 10 years. Only two (2) respondents have experience between 21 and 25 years, whereas, four (4) respondents indicated experience greater than 25 years. These teachers thus form a small percentage of those teachers implementing Curriculum 2005.

The researcher concludes that as shown in the table, the sample is well represented by the ranges 0 to over 25 which indicates teachers' experience. This sample represented a wide range of teachers' experience. Healthily, majority of the teachers (33.8%) have between 6 and 10 years experience. They are neither too new in the field nor too old to embrace new concepts. That is a good group to implement Curriculum 2005 and see it flourish.

MEDIA TRAINING

This question required teachers to indicate the extent to which they were trained in the use of media in teaching.

TABLE 2: MEDIA TRAINING

	YC	YM	NNW	NNA	No response	Total
Respondents	22	15	2	32	3	74
Percentage	29,7	20,3	2,7	43,2	4,1	100

(Key: YC = Yes Completely; YM = Yes Mostly; NNW = No Not Well; NNA = No Not at All).

Nearly half of the respondents (43.2%) did not undergo any training in teaching media. This high number of the Grade One teachers in the area of study are not qualified to apply a variety of media in their teaching, especially as called for by Curriculum 2005.

Such teachers should receive adequate training in the use of both traditional and the latest educational technology for effective teaching and learning to take place.

MEANING OF EDUCATIONAL TECHNOLOGY.

Teachers were requested to state whether they agree or disagree with the definition of "educational technology" which states: '*Educational technology, means all educational media purposely utilised in the teaching/learning situation.*' The purpose of this question was to establish some consensus among educators.

A total of 70% agreed with the definition whereas 20 respondents (30%) did not respond to the question.

The fact that 30% of the respondents did not respond to the question might mean that these teachers are not familiar with the definition given. From the responses, one can deduce that since over 1/4 of the teachers hold different or no views, it could mean that educators need more orientation on what educational technology is.

THE USE OF MEDIA IN GRADE ONE

In this question, teachers were invited to indicate whether they agree with the notion of using teaching media in Grade One.

TABLE 3: THE USE OF MEDIA IN GRADE ONE

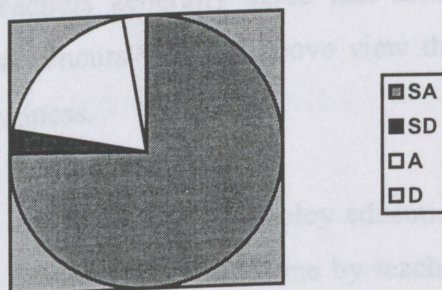
Response	Count	%
Strongly Agree	24	60,8
Agree	25	33,7
Disagree	1	1,4
Strongly Disagree	1	1,4
Unmarked	2	2,7
Total	74	100%

A great majority of respondents (over 90%) supported the idea of using media in teaching Grade One. Nevertheless more training is needed for teachers, including those not trained in media usage, to be able to integrate these media in their lessons.

USE OF EDUCATIONAL TECHNOLOGY ENCOURAGE LEARNER-CENTREDNESS

This item was intended to measure the extent to which teachers agreed that educational technology encourages learner centredness. The responses are presented in Figure 1 below:

Figure 1: Educational Technology and Learner Centredness



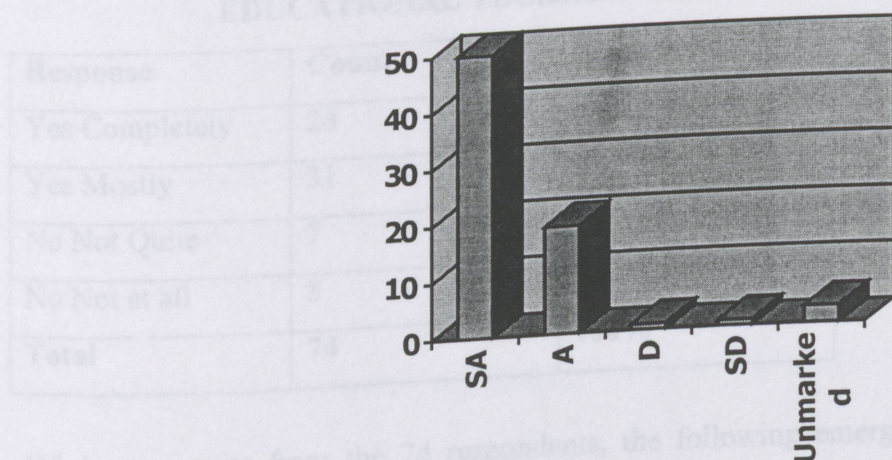
From figure 1 above it is evident that the majority of teachers consider that the use of educational technology in their class should encourage learner centredness. These were supported by 56 + 14 (70 = 95%) of respondents. Only 4 (5%) of the teachers did not support

this notion. With these results it is possible to conclude that almost all Grade One teachers in the area of study would share the same view.

EDUCATIONAL TECHNOLOGY FACILITATES TEACHING AND LEARNING

In this question, respondents were to indicate whether technology facilitates teaching and learning. The results are shown in Figure 2 below:

Figure 2. Educational Technology facilitates Teaching and Learning



According to Figure 2 (above), 50 respondents (67.6%) "Strongly agree that educational technology facilitates teaching and learning; 19 (25.7%) "agree", whereas one respondent "disagrees" and another one "strongly disagrees" with this notion. Three (3) respondents did not disclose their views. Since the majority of respondents (69 = 93.2%) agree that technology facilitates teaching and learning, teachers generally agree that media technology has to be integrated in lessons. This view also concurs with the above view that the use of educational technology encourages learner-centredness.

From the above results it is evident that the policy to employ educational media in Curriculum 2005 lessons at Grade One level is considered a sound one by teachers since it enhances and stimulates learning.

LEARNERS' UNDERSTANDING OF THE LANGUAGE USED IN EDUCATIONAL TECHNOLOGY.

The researcher wanted to solicit information from educators regarding their understanding of the language used in educational technology.

Table 3 below depicts the responses:

TABLE 4: LEARNERS' UNDERSTANDING OF THE LANGUAGE USED IN EDUCATIONAL TECHNOLOGY

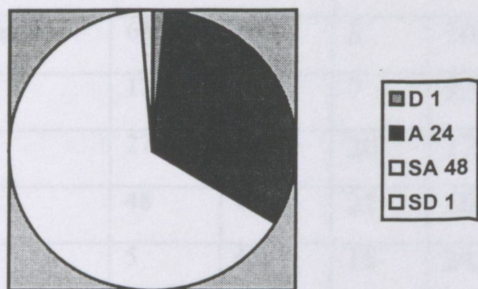
Response	Count	%
Yes Completely	28	37,8
Yes Mostly	31	41,9
No Not Quite	7	9,5
No Not at all	8	10,8
Total	74	100%

Of the responses from the 74 respondents, the following emerged: 28 respondents (37.8%) "completely agree" that learners understand the language used in educational technology; 31 respondents "mostly agree" with the notion; 7 out of 74 respondents (9.5%) do not quite "agree", and 8 respondents (10.8%) "did not agree at all". From the responses it is clear that the majority of educators (80%) agree that their Grade One learners understand the language applied in media. This is a strong indication that learners can be effectively exposed to the language used in educational technology to achieve learning in Grade One.

THERE SHOULD BE COLLABORATION BY TEACHERS USING EDUCATIONAL TECHNOLOGY.

Educators were requested to indicate the extent to which they would support the idea of collaboration between teachers using educational technology at Grade One level. Their responses are represented below:

Figure 3. Collaboration by teachers using educational technology



It would appear, according to figure 3 above that the majority of educators (48) representing 64.9% "strongly agree" that there should be collaboration by teachers using educational technology. Another 24 respondents (32.0%) also "agree" with this notion, as opposed to one respondent (1.4%) who "strongly disagrees" with the notion. Thus the majority of educators support the idea of collaboration by teachers using educational technology. From the above we find that collaboration is effective with regard to the use of educational media in implementing Curriculum 2005.

EXTENT OF USE OF EDUCATIONAL TECHNOLOGY IN GRADE ONE

In this question, teachers were requested to indicate the extent to which they have used the different types of media since they started implementing Curriculum 2005 in Grade One classes. The results are presented in Table 4(a) below:

From the Table above it is evident that 100% of respondents (100%) have never used media like slides, film strips, computers and overhead projectors. The majority of them (81.0%) also do not make use of bulletin boards, Smart boards (64.5%), television (94.5%), video tapes (82.4%), tape recorders (64.9) and radio (64.5%). The fact that some media like slides, film strips, overhead projectors, video tapes have never been used might mean that they are not available or that educators have problems in using them. Also from the Table, one can clearly see that the types of media that were never used are mostly those that require the use of electricity. The installation of electricity should be a priority to enable educators to use a variety of media that depend on electricity. Besides, educators need to be workshoped in the use of modern educational technology that require electricity.

On the question of whether electricity was available in their schools, 47 respondents (63.3%) reported that they did not have electricity in their schools. This would seem to be the case in

TABLE 5: EXTENT OF USE OF TECHNOLOGY IN GRADE ONE

	Always		Sometimes		Seldom		Never		Total
Wall Charts	66	89,2	8	10,8	-	-	-	-	74
Graphs	17	22,9	7	9,5	7	9,5	43	58,1	74
Photos	27	36,5	20	27,0	5	6,8	22	29,7	74
Posters	48	64,8	21	28,4	4	5,4	1	1,4	74
Models	5	6,8	18	24,3	21	28,4	30	40,5	74
Radio	2	2,7	22	29,7	5	6,8	45	60,8	74
Tape recorder	2	2,7	22	29,7	5	6,8	45	60,8	74
Video Tapes	-	-	13	17,6	-	-	61	82,4	74
Chalkboard	58	78,3	15	20,3	-	-	1	1,4	74
Slides	-	-	-	-	-	-	74	100	74
Filmstrips	-	-	-	-	-	-	74	100	74
Computer	-	-	-	-	-	-	74	100	74
Newspaper sup	20	27,0	39	52,7	11	14,9	4	5,4	74
Magazines	20	27,0	42	56,8	3	4,1	9	12,1	74
Television	1	1,4	2	2,7	1	1,4	70	94,5	74
Flannel boards	7	9,5	11	14,9	8	10,8	48	64,8	74
Bulletin boards	8	10,8	3	4,1	3	4,1	60	81,0	74
Overhead proj.	-	-	-	-	-	-	74	-	74
Other									

From the Table above, it is evident that all 74 respondents (100%) have never used media like slides, film strips, computers and overhead projectors. The majority of them (81,0%) also do not make use of bulletin boards, flannel boards (64.8%), television (94.5%), video tapes (82.4%), tape recorders (64.9) and radio (60.8%). The fact that some media like slides, film strips, computers, overhead projector, video tapes have never been used might mean that they are not available or that educators have problems in using them. Also from the Table, one can clearly see that the types of media that were never used are mostly those that require the use of electricity. The installation of electricity should be a priority to enable educators to use a variety of media that depend on electricity. Besides, educators need to be workshopped in the use of modern educational technology that require electricity.

On the question of whether electricity was available in their schools, 47 respondents (63.5%) reported that they did not have electricity in their schools. This would seem to be the case in

most primary schools in the area of this study. There is the need to instal electricity at these schools since modern technology requires the use of electricity. Lack of electricity deprives school of the use of modern equipment such as television, computers, radios, overhead projectors and filmstrips. The Government therefore has to see to it that electricity is provided in each schools in order for all Grade One learners to be able to use modern technology.

In this section, the responses obtained from the interviews with the principals are presented. Twenty (20) lower primary school principals were interviewed. Both open and closed coded questions were used.

The main aim of this interview was to establish the opinions of principals with regard to the use of educational technology in implementing Curriculum 2005. It is important to involve principals in this study since they are expected to know exactly what is prevailing at their schools with regard to the new education system.

The questions were subdivided into three categories related to enrolments, quality of teachers and the principal.

ENROLMENTS

The purpose here was to establish the total enrolment in each school as well as the number of Grade One pupils being introduced to Curriculum 2005.

SECTION B: PRINCIPALS' RESPONSES

TABLE 6: ENROLMENT

INTRODUCTION

The interviews were conducted with the principals and trainer-facilitators in Region 3. In this section, the responses obtained from the interviews with the principals are presented. Twenty (20) lower primary school principals were interviewed. Both open and closed-ended questions were used.

The main aim of this interview was to establish the opinions of principals with regard to the use of educational technology in implementing Curriculum 2005. It is important to involve principals in this study since they are expected to know exactly what is prevailing at their schools with regard to the new education system.

The questions were subdivided into three categories related to enrolments, quality of teachers and the principal.

ENROLMENTS

The purpose here was to establish the total enrolment in each school as well as the number of Grade One pupils being introduced to Curriculum 2005.

Of the 20 principals, 3 had total enrolment under 200 learners, 7 schools had enrolment between 200 and 500, and 10 schools had enrolment of over 500. The sizes of enrolments in the schools therefore are quite different – spreading between a low of 100 to a high of over 600. The majority (65%) of schools had 500 or more learners.

With regard to Grade One, five (2) principals reported enrolment of between 50 and 110, three reported enrolments in the range of 111 to 140 learners, and two (2) principals had between 141 and 170. One principal reported enrolment above 170.

Given that a teacher-pupil ratio of 1:40 in the foundation class is acceptable, one finds that in most schools teachers face serious problems of overcrowding. It was observed that Grade One educators in schools with over 50 learners sometimes put the class groups together for lack of accommodation.

TABLE 6: ENROLMENT

Items	Groups	Count	Percentage (%)
School Enrolment	100 – 200	3	15
	201 – 300	2	10
	301 – 400	2	10
	401 – 500	3	15
	501 – 600	4	20
	501 – 600	6	20
	> 600		30
Enrolment in Grade one	< 20	1	5
	20 – 50	3	15
	51 – 80	5	25
	81 – 110	5	25
	111 – 140	3	15
	141 – 170	2	10
	141 – 170	1	5
	>170		10
Total		20	100%

Of the 20 principals, 3 had small school of under 200 learners; 7 schools had enrolment of between 200 and 500, and 10 schools had enrolment of over 500. The sizes of enrolments in the schools therefore are quite different – spreading between a low of 100 to a high of over 600. The majority (65%) of schools had 400 or more learners.

With regard to Grade One, five (5) principals reported enrolment of between 80 and 110, three reported enrolments in the range of 111 to 140 learners, and two (2) principals had between 141 and 170. One principal reported enrolment of over 170.

Given that a teacher-pupil ratio of 1:40 in the foundation phase is acceptable, one finds that in most schools teachers face serious problems of overcrowding. It was observed that Grade One educators in schools with over 50 learners sometimes put two class groups together for lack of accommodation.

QUALITY OF TEACHERS

The following set of questions are about teachers. They are meant to give an idea of the extent of training the teachers had in the implementation of Curriculum 2005 in Grade One, especially the use of educational technology in the program.

Are Grade One teachers qualified enough to use educational media in their lessons?

The above question was asked in order to determine whether Grade One teachers are qualified enough to use educational media in their lessons. In response to this question, 12 principals (60%) said "Yes", and eight (40%) said "No". The findings reveal that teachers are not very competent in using educational media in their lessons, thus they should receive training in the use of educational media. The thrust of the responses is that there should be training and guidance for educators in the use of educational media. Thus from the responses one can conclude that more training and workshops for teachers in the use of educational technology are needed in order for OBE to succeed.

TRAINING ON THE IMPLEMENTATION OF EDUCATIONAL MEDIA IN GRADE ONE

This item required principals to state whether there was any training on the implementation of educational media in Grade One. To this 11 principals said "Yes, but not sufficient", 6 said "No", 2 said "Not enough", and one said "Teachers were presently under training".

Here, too it would appear that more training and workshops on the implementation of educational media would be needed. One may conclude that through seminars, conferences, in-service training and workshops Grade One teachers may acquire more knowledge and skills on the implementation of educational technology in Curriculum 2005.

PRINCIPALS

INVESTMENT ON RESOURCES

Principals were requested to indicate in order of priority, the resources that needed urgent supply in their schools. The result indicated the following priorities:

- 1st priority - investment in educational media.
- 2nd priority - building of classrooms.
- 3rd priority - building of laboratories.
- 4th priority - building of a media centre.

The responses suggest that there is a significant shortage of media technology/resources in primary schools in the area under study, for example, those that require the use of electricity like, TV, computer, slides, etc. Teachers will have to improvise their own teaching media; they don't have to wait for the installation of electricity. Neither do they have to wait for the government to supply these.

EXTENT OF CURRICULUM FACILITATION WITH REGARD TO THE USE OF EDUCATIONAL TECHNOLOGY.

Principals were requested to indicate their opinion on the supervision and facilitation of teachers in the use of educational technology at Grade One level. Seven (7) principals (35%) said that their teachers were adequately supervised and facilitated, while 12 (60%) confirmed that there was no adequate supervision and facilitation of teachers at Grade One level.

Overall, principals made the following recommendations (Table 6) with regard to the supervision and facilitation of educational technology for Curriculum 2005 in Grade One.

TABLE 7

RECOMMENDATIONS	COUNT	PERCENTAGE
• 'Before educators start with the real teaching, they should be thoroughly trained, and be provided with proper facilities and enough equipment for use in class.'	20	100
• 'Educators must be trained and enough teaching and learning media should be provided. Educators must be sent for in-service training in order to equip them with the needed knowledge.'	20	100
• 'There should be enough classrooms to avoid overcrowding.'	18	100
• 'The Department of Education must see to it that enough materials are distributed and supplied in time.'	20	100
• 'The learning material should be simplified and gradually introduced with much consideration for learners' ages.'	20	100
• 'Money should be given to schools for the resources and equipment.'	20	100
• 'Schools must endeavour to acquire electricity in order to be able to use all the electronic media.'	20	100
• 'Schools must be equipped with videos, television and computers.'	18	100
• 'There should be more support for teachers'.'	20	100
• 'In order to succeed, teachers must work hand-in-hand with the parents so that they can ask for funds where necessary.'	20	100
• 'Educator-learner ratio should be reasonable, about 1:40'	20	100
• 'Principals should attend workshops in order to monitor the process with understanding.'	20	100
• 'Facilitators should also be well trained.'	20	100

The recommendations made may be categorised as follows:

- (a) Those which affect structural adjustment, e.g. provision of adequate equipment, class size (reasonable teacher-pupil ratio of 1 :40), the purchase of technological gadgets such as computers, videos, T.V.'s, overhead projector etc. Overcrowding, for instance, interferes with maximizing learning and burdens teachers to an extent where they fall back to traditional teaching styles.

- (b) Engaging parents in the learning process to enhance the forging of stronger links between school and home and vice versa. There are a host of tools (objects/articles) that educators can draw upon to as learning media which parents and learners could bring to class if asked to do so.
- (c) The training of educators and principals in the OBE methodology in using educational technology to boost educators' confidence and turn learning/teaching into fun thereby ensuring learning success.
- (d) The recommendations also touch on funding by the Department of Education, which should again control the equitable distribution of learning resources.
- (e) The strategy of teacher support by circuit managers, curriculum advisors/facilitators and school managers assures a successful transformation of education.

TABLE 8

COMMENTS	RESPONDENTS	PERCENTAGE
Teachers need more training in the use of educational media.	10	100
Teachers still need to be workshopped on the use of educational technology and Curriculum 2005.	10	100
Grade One teachers are knowledgeable, skilled, experienced in the use of educational Technology for Curriculum 2005	6	60
It is fair since some teachers listen to the radio, watch OBE programmes on television and read about it from magazines.	10	100
Teachers are not experienced; their knowledge and skills are still developing to master OBE.	4	40

All 10 trainer-facilitators (100%) reported that teachers need more training and workshops. Generally, the interviewees think it is good or fair and gave the reasons (Table 8) above. Though in some schools, the educators have knowledge, skills and experience in the use of

SECTION C: RESPONSES BY TRAINER-FACILITATORS

With the introduction of Curriculum 2005, trainer-facilitators, drawn from the regional offices, area offices and colleges of education, were trained to introduce serving teachers to the new programme. They have been running workshops for teachers to monitor the implementation of Curriculum 2005 and visiting schools. Ten trainer facilitators from Vuwani, Thohoyandou and Mutale inspection areas were interviewed on the use of education media by Grade One teachers.

KNOWLEDGE, SKILLS AND EXPERIENCE OF GRADE ONE TEACHERS IN THE USE OF EDUCATIONAL TECHNOLOGY FOR CURRICULUM 2005

In this item, 10 trainer-facilitators were requested to give their views on the state of Grade One teachers' knowledge, skills and experience with regard to the use of educational technology for Curriculum 2005. In response to this, trainer facilitators gave the following comments (Table 8):

TABLE 8

COMMENTS	RESPONDENTS	PERCENTAGE
• Teachers need more training in the use of educational media.	10	100
• Teachers still need to be workshopped on the use of educational technology and Curriculum 2005.	10	100
• Grade One teachers are knowledgeable, skilled, experienced in the use of educational Technology for Curriculum 2005.	6	60
• It is fair since some teachers listen to the radio, watch OBE programmes on television and read about it from magazines.	10	100
• Teachers are not experienced; their knowledge and skills are still developing to master OBE.	4	40

All 10 trainer-facilitators (100%) reported that teachers need more training and workshops. Generally, the interviewees think it is good or fair and gave the reasons (Table 8) above. Though in some schools, the educators have knowledge, skills and experience in the use of

educational technology for Curriculum 2005, it comes out clearly that many teachers still need more training.

THE EXTENT OF TEACHERS' MOTIVATION IN INTEGRATING EDUCATIONAL TECHNOLOGY IN THEIR LESSONS.

In this question, the researcher wanted to know whether Grade One teachers were interested and willing to integrate educational technology in their lessons. Ninety percent (90%) of the trainer-facilitators responded positively. They indicated that teachers were very willing to use educational technology and that there was also a great excitement about this change. One interviewee who said that teachers were not motivated explained that they were generally too lazy to improvise, in cases where there were shortages of educational technology resources.

The message from most trainer-facilitators was that teachers needed to be creative, innovative and take initiative as far as the implementation of educational technology was concerned. They should not always wait for the Department to supply them with materials; they need to improvise at times.

THE LEVEL OF SUCCESS IN MEDIA INTEGRATION BY GRADE ONE TEACHERS

Trainer-facilitators were requested to give their assessment on whether Grade One teachers were performing as expected in terms of media integration. Sixty percent (60%) of the interviewees revealed that teachers were not performing as expected because most primary schools did not have modern educational technology resources such as televisions, radios, video and computers. They also indicated that teachers needed ongoing training and exposure to more media in order to be able to integrate media in their lessons.

Majority of the trainer-facilitators pointed out that some teachers were just negative about the use of educational technology due to a lack of skills in using them. Such teachers therefore need help in order to be competent in integrating media in their lessons. They further said that some teachers were not creative enough for successful integration. This is a further indication of the need for training in the use of educational technology by teachers.

SPECIFIC OBSERVATIONS BY TRAINER FACILITATORS

Trainer-facilitators point out the specific, observations they had made during their school and class visits - with specific reference to the use of educational media by Grade One teachers. Table 9 is a summary of their responses:

TABLE 9

Specific Observations	No. of trainer-facilitators making these observations	Percentage
<ul style="list-style-type: none"> Majority of teachers were generally willing and motivated to apply educational Technology in their lessons. 	8	80
<ul style="list-style-type: none"> Majority needed training in the use of educational technology. 	10	100
<ul style="list-style-type: none"> Majority of schools (Grade One) lack modern educational technology/resources. 	10	100
<ul style="list-style-type: none"> Generally, the attitude of Grade One teachers in using educational technology was positive. 	9	90
Problems encountered during the training of teachers:		
<ul style="list-style-type: none"> Lack of materials 	10	100
<ul style="list-style-type: none"> Not enough participation due to lack of confidence 	9	90
<ul style="list-style-type: none"> Insufficient training equipments 	10	100
<ul style="list-style-type: none"> Lack of transport for facilitators 	10	100
<ul style="list-style-type: none"> Resistance to change by teachers 	4	40
<ul style="list-style-type: none"> New terminology 	8	80
Total	10	100

When asked how they think they can solve the problems above, trainer-facilitators offered the following suggestions (Table 10):

TABLE 10

SUGGESTIONS	COUNT	PERCENTAGE
<ul style="list-style-type: none"> Follow-up visits to schools after workshops 	10	100
<ul style="list-style-type: none"> By monitoring classes, organising more workshops, visiting schools and clusters 	9	90
<ul style="list-style-type: none"> The Department of Education needs to provide materials, resources and equipments 	10	100
Total	10	100

From the above we learn that if workshopped adequately, teachers cannot have problems with Curriculum 2005 issues since it was found from the research that they are willing and enthusiastic to learn.

The following (Table 11) are the recommendations from the trainer facilitators for OBE to succeed:

<ul style="list-style-type: none"> Regular workshops by trainer monitoring 	9	90
<ul style="list-style-type: none"> Teachers should work together to discuss and solve each other. 	10	100
<ul style="list-style-type: none"> Teachers should be instructed to help and support each other. 	10	100
Total	10	100

TABLE 11

Recommendations	Count	Percentage
• 'Further training is required. '	10	100
• 'More workshops should be conducted and monitored.'	10	100
• 'Teachers who still need assistance must be given. '	10	100
• 'More funds into the programme to address many issues of Curriculum 2005 is needed.	8	80
• 'Radio and television sets should at least be supplied.'	10	100
• 'Provide teachers with teaching and learning materials.'	8	80
• 'An OBE resource centre should be established in each area for teachers to get constant practice and more exposure to OBE.'	10	100
• 'Enough classrooms and learning materials should be provided. '	10	100
• 'More workshops, cluster meetings and school visits.'	10	100
• 'More support for teachers on an ongoing basis.'	10	100
• 'Regular monitoring and mentoring.'	10	100
• 'Regular workshops on issues identified during monitoring.'	9	90
• 'Teachers should work together in clusters and help each other.'	10	100
• 'Teachers should be motivated to face this new approach. '	10	100
Total	10	100

CONCLUSION

From the investigation made in this study, the following conclusions can be made:

Nearly half of the Grade One teachers in the area of study are not qualified to apply a variety of media in their teaching. These educators have not undergone any training in teaching media. Therefore, inservice training with regard to the use of teaching media by these educators is necessary for effective teaching and learning to take place.

There was consistent positive response for the use of media at Grade One level. Its integration in lesson activities should be encouraged through training and retraining. This should strongly be looked into since educational media enhances and stimulates learning. More training and workshops for teachers in the use of educational technology are needed in order for OBE to succeed.

From the study, it was also affirmed that collaboration by teachers using educational technology is an effective way of implementing Curriculum 2005.

It was also established that the types of media that were never used are mostly those that require the use of electricity. The installation of electricity should thus be a priority to enable educators to use a wide variety of media that depend on electricity. It is a sad fact that most primary schools in the area of study do not have electricity. Thus there is the need to instal electricity at these schools. The Government should also supply schools with these latest educational technology so that both the learners and educators can move with time.

Since there is a serious shortage of educational technology/media, educators need to be creative, innovative, and take initiative as far as the implementation of educational technology is concerned.

SUMMARY, CONCLUSIONS AND RECOMENDATIONS

SUMMARY

The purpose of this study was to determine the perception of Grade One teachers in the use of educational technology while implementing Curriculum 2005. The field work for this study was conducted in the Thohoyandou and Vuwani areas with a sample of teachers, principals and trainer- facilitators.

The overall purpose of this research was to investigate the perception of teachers at the foundation face (Grade One) towards the use of media in implementing Curriculum 2005. Specifically the study aimed at the achievement of the following objectives:

- To establish the meaning and nature of Curriculum 2005 to Grade One teachers in the area of study.
- To investigate the perceptions that teachers of Grade One have about the use of educational media.
- To identify the problems of using media in implementing Curriculum 2005 at Grade One level.
- To make recommendations on how to use media in implementing Curriculum 2005.

The methods of study included data collection from both primary and secondary sources. Relevant literature including books, magazines, articles, newspapers, reports and policy documents as well as participation in conferences were essential parts of the secondary sources.

The primary source of data collection comprised structured (closed-ended) and unstructured (open-ended) questionnaires administered to Grade One teachers as did interviews with principals and trainer-facilitators.

Two research instruments were used for data collection. Questionnaires were designed to obtain information from Grade One teachers while interviews schedules solicited data from principals and trainer-facilitators. The study was qualitative and tables, graphs and figures were used to illustrate the results, which were explained.

As observed through the investigation of this study, there is a tremendous lack of resources and equipments, materials and facilities in implementing Curriculum 2005. Lack of accommodation is another problem in this province (The Northern Province).

From the findings it emerged that there is a real need for teachers to be properly trained through workshops and in-service training in order for OBE to succeed through teacher empowerment.

The study, tried to establish the types of educational media that are available and those not available at the various schools. This was done in order to assess which area of teaching media needs attention. It was realised that the different types of modern technology, such as computer, video, television, film strips, etc., need to be supplied to the different schools in order for the educators and learners to move with time.

CONCLUSION

The following are major conclusions made from findings:

Conclusions pertaining to professional growth of teachers in educational media-

- Many teachers did not undergo training in the use of teaching media; if they did, it was quite minimal. Therefore, training of teachers in the use of educational media is vital.
- There is the need for more orientation and training on the part of teachers as far as media technology used in Curriculum 2005.
- Cluster meetings formed are very helpful for teachers.
- Some teachers have no confidence, may be because of poor language proficiency.
- Lack of training also results in the lack of understanding on the part of the teachers who are to implement it.

- Some teachers are afraid of change; they don't want to venture into the unknown, and therefore resist OBE because they do not understand what it entails.

RECOMMENDATIONS

Conclusions pertaining to availability of resources for educational media

- The majority of educators strongly agree that they lack educational technology in schools.
- Teachers receive materials from the Department very late or they do not receive materials at all. Many Grade One teachers had not yet received any Curriculum 2005 materials during the time of research.
- Implementation of OBE was delayed in some areas because of lack of materials.
- Most schools are poorly resourced; more materials and equipment should be provided.
- The majority of schools have no electricity, and this hinders the use of modern technology which depends on electricity: television, videos, computers, etc.
- Financial constraints are a stumbling block to the implementation of Curriculum 2005; training itself is expensive, schools depend on school funds for equipment, and this is not enough.

Conclusions pertaining to principals' awareness and support of educational media

- Teachers have developed a negative attitude towards OBE since some principals are also not knowledgeable.
- Principals are keen to know more about OBE. They also need to be workshopped.

Conclusions pertaining to the support by the Government

- There is a great need for the Government to supply schools with modern basic technology, especially those using electricity.
- Most classes are overcrowded. The suggested learner-education ratio of 1:40 is exceeded by almost all schools in the area.
- OBE in itself demands a lot of space. This is a great problem in our rural areas

because we do not have enough classrooms, and some lessons take place under the trees.

RECOMMENDATIONS

The following recommendations are made and are categorised as they affect the various role players.

Recommendations pertaining to teachers

(a) Educational technology/resources

- With regard to educational technology, teachers need to be encouraged and motivated to use a wide variety of educational resources in the classroom.
- Teachers also need to be able to distinguish between good and bad educational materials. They should recognise that they have a great role to play in resourcing the classroom, and know how to access resources and use these creatively.
- There should be 'network centres' where teachers can share the experience and skills they gained during the trial period.
- Teachers should be involved in the provision of educational resources. They should not only be regarded as simply disseminators of resources; they should be involved in the production and implementation of educational resources.

(b) Training

- Educators should be properly trained and adequately supported in the application of OBE; if not, OBE cannot succeed.
- Since educational technology is a new field for many teachers, in-service training is necessary.

(c) Teachers' personal growth

- Teachers should be motivated to accept this new change. Their interest should be developed through workshops.
- Each educator should reassess his/her task and mission in a changing South Africa, and be determined to become more efficient as well as effective.
- There needs to be a change in attitude from the teachers. Teachers need not wait for

materials from the Government. They must try to improvise.

- Educators involved in Curriculum 2005 must watch educational TV programmes, especially those dealing with Curriculum 2005 in order to gain more knowledge and expertise.

(d) Support from Government

- Teachers should be adequately supported in the application of OBE by those in management positions.
- Rowntree (1985:244) says, "To the teachers, I would say that you must satisfy parents and industry that what you are doing meets the requirements and the needs of their children. If the public is not convinced then the profession will be laying up trouble for itself in the future. ... it will be an advantage to the teaching profession to have a wide public understanding and support for what they are doing. ...the children are seen to belong to industry as well as to the parents."
- Outcomes-Based Education can only be successful if teachers create learning-oriented classrooms. Van der Horst & McDonald (1997) say, "Ri a shuma zwikoloni, (Tshivenda) "Re a Šoma dikolong" (Sesotho) "Ha tirha eswikolweni", (Xitsonga) which, translated, means, ("We are working in our schools"). This can thus be regarded as an apt slogan for the creation of a culture of teaching and learning in our schools. Educators should thus move forward and begin to apply the OBE principles in their classrooms.
- The Government should ensure that electricity is supplied to all towns and villages so that all schools benefit from it. Then can modern technology, which uses electricity, be introduced to make Curriculum 2005 possible.

Recommendations pertaining to principals

- Principals should be involved in workshops for OBE (Curriculum 2005).
- They should support the teachers in the new approach in education.
- They should supply teachers with resources.
- They should keep abreast with change so as to be able to monitor and supervise the teachers.
- They should not be sidelined as far as training is concerned.
- They should not hinder teachers from attending workshops and training.

- They should pursue and supply learning support materials to teachers.

Recommendation pertaining to trainer-facilitators

- Teachers complain that trainer-facilitators train teachers for about a week only, and hereafter teachers go back to their respective schools, but then there is no follow-up. Teachers then become frustrated. Trainer-facilitators should make frequent school visits in order to assess whether teachers are coping with what they were workshopped on.

Recommendation pertaining to the government

Language used

- The language used is too complex. Terms used in OBE are too many and too difficult. Teachers are struggling to understand the terms that make it difficult for teachers to understand what OBE entails. Simpler language should be used, and the Government should see to it that complex terminologies are translated into simple understandable language.

Quality education

- The Government must honour its commitment to ensure quality education for all, and this requires resources (compare the pictures on appendices D, E and F).

Resources

- Teachers received materials from the Department of Education very late or did not receive materials at all. The Government should therefore improve on the provision of learning support materials.
- In order for OBE to succeed in all areas, the Government has to ensure a fair and equitable distribution of resources (see appendices D, E and F).
- Community learning centres should be established in order to make the communities accustomed to a variety of technologies. Such centres could be used to familiarise teachers with new electronic technologies that are used in the new approach.
- The issue of classrooms should be taken seriously. OBE demands a lot of space. This

is a great problem in our rural areas, where there are not enough classrooms. Some lesson activities take place under the trees. OBE principles cannot be applied under such conditions (see appendix E).

- More basic facilities should be supplied to schools, e.g. furniture, computers, teaching and learning media.
- There is either a lack of resources or inadequate resources, and the Government should ensure that there are adequate resources in all schools at all times.
- Implementing OBE costs a great deal of money. Teachers need to be retrained, curricula revised and new assessment criteria and procedures developed. The funds allocated for education must be increased significantly to upgrade school facilities in neglected areas. This should definitely be done if schools in disadvantaged areas are to benefit in any way from Curriculum 2005 (The New Teacher, p.11).
- Financial constraints obviously limit quality, and the Government should put more money into education.

Education Resource Centre

- In-service training aimed at providing teachers with the skills necessary to achieve their responsibilities should be organised; This, in turn, demands an increase in in-service centres.

Training

- The Province should use the rationalised colleges to train lecturers to train OBE teachers.
- The Department should empower the education officials and area managers. Regional directors, area managers, circuit managers and principals need to be empowered to be able to empower teachers.

Old teachers versus new teachers

- The Government and the school governing bodies and principals should try to replace old teachers who are teaching Grade One with young, energetic, committed and enthusiastic ones. It was discovered during the investigations that in most schools, Grade One teachers were rather old, demotivated and no longer keen to learn new things. They

were satisfied with the status quo and did not seem keen to apply the new principles of OBE. Old-fashioned teachers cannot cope with the new strategies.

Teacher-pupil ratio

- Another issue is the teacher/pupil ratio. A teacher-pupil ratio of 1:25 or lower is ideal for success. Unfortunately, this is not the case with our schools in the Northern Province, where the pupil-teacher ratio is abnormally high. A teacher-pupil ratio of 1:40 (primary school) and 1:35 (secondary schools) is thus recommended. A reduction in class sizes ensures quality education.

Recommendations pertaining to other stakeholders

Collaboration

- There should be discussions with the people who have already implemented this innovation. Conferences, courses, seminars and workshops can make very good contributions.

Educational media

- In order for OBE to succeed, all stakeholders should look proactively for solutions instead of throwing their hands up in dismay. Educators and other stakeholders should thus improvise educational media, if need be. They need not wait for the Government to supply them; they can also use waste materials to produce educational media. South African media educators need to encourage the implementation of media education in formal and non-formal education.

BIBLIOGRAPHY

1. Allenby *In-Home-Study. Principles of Business Management*, Guide 1, E 96
2. Bailey, K.D. 1982. *Methods of Social Research 2nd edition*. Collier Macmillan Publishers, London.
3. Bayona, E.L.M. 1995. *Curriculum Design And Development, The Role of Teachers*, Gaborone, Botswana, Print Consult.
4. Bishop S. 1986. *Innovation in Education*. Macmillan Publishers: Hong Kong.
5. Blignaut, E.P. 1994. *Media Technology*. Pretoria, CESA.
6. *Building a Brighter Future: Curriculum 2005*, 1998. Department of Education.
7. Cloete, J.J.N. 1984. *An Introduction To Public Administration*, J.L. Van Schaikwyk, (CPTY) Ltd.
8. Conradie, D. 1997. *Outcome Based Education (OBE) What is it?* EE Bulletin, Grahamstown: Shutter and Shooter.
9. Curriculum 2005. *Discussion Document Grade 1 to 9*, April 1997. Department of Education.
10. Curriculum 2005. *Implementing OBE - 2 Assessment*. Life learning for the 21st century , Communication, Department of education Pretoria.
11. Curriculum 2005. *Implementing OBE - 1, Classroom Practice*. Lifelong learning for the 21st Century .
12. Curriculum 2005. *Implementing OBE - 4. Philosophy*, Lifelong learning for the 21st Century.
13. Curriculum 2005. *Implementing OBE - 3 School Management*, Lifelong learning for the 21st Century .
14. Curriculum 2005, *Lifelong learning for the 21st century*. February 1997.
15. Curriculum 2005, *South African Education for the 21st century*. April 1997. The Media in Education Trust.
16. Derek, Rowntree. 1985. *Educational Technology in Curriculum Development*. 2nd edition London: Paul Chapman.
17. Dreyer, H.J., Duminy P.A. *et al* 1997. *Education for the students teacher 2*. Cape Town: Maskew Miller Longman.
18. Education Renewal Strategy: *Discussion Document*, June 1991.
19. Education Renewal Strategy 1992. *Management Solutions for Education in South Africa*. Department of Education, Pretoria, R.S.A.

20. Eggleston, J. 1992. *Teaching Design and Technology*. Open University Press. Buckingham, Philadelphia.
21. Emerson, A. 1993. *Teaching Media in the Primary School*. London: Cassell Educational Limited.
22. Farrant, J.S. 1997. *Principles and Practices of Education*. Longman Singapore.
23. Freysen, J.B & Briel, R.M. (eds) 1989. *Media Science*. Kempton Park: Audio-Visual Aids.
24. Freysen, J.B. 1993. *Media Didactics: Study Guide*. Pretoria CESA.
25. Gress, J.R and Purpule D. 1988. *Curriculum An Introduction to the Field*. University of North Carolina, Greensboro, USA.
26. Groenewald 1994. *Instructional Video Programmes*. University of Stellenbosch.
27. Hass, G. 1987. *Curriculum Planning: A New Approach*. (5th edition), Allyn and Bacon inc: Boston.
28. Hugo, J. 1994. *Higher Education Media Services in a changing South Africa: Are we Doing the Right Things Right?* University of Stellenbosch.
29. Hygen, J.O. 1992. *Educational Media Science I Study Guide*. CESA: Pretoria.
30. Hygen J.O. 1994. *Teaching Media Guide*. Educational Media Science CESA: Pretoria.
31. *Implementing Curriculum 2005 Grade 1 for 1998*. Heinemann Publishers.
32. *Interim Policy For Early Childhood Development*. 1997, Department of Education.
33. Kistan, G. 1994. *Collaborational Networking of Audio Visual Units*, University of Stellenbosch.
34. Konrad adennauer Stiftung, 1998, *Seminar Report. Towards An effective, Coordinated Communication Strategy*, 1st Interdepartmental Intergovernmental Conference of Heads of National, Provincial and Local Structures in the Northern Province. Oasis Hotel Pietersburg.
35. Kruger, R.E & Muller, E.C.C. 1988. *Lesson Structure & Teaching Success*, RAU Johannesburg.
36. Lass Lubis, 1997. Volker Wedeked, *Understanding Outcomes Based Education, Knowledge, Curriculum and Assessment in South Africa*. Learning guide.
37. Louw, W.J. 1993. *Classroom Practice - an orientation*. Academica J.L. van Schaik (Pty) Ltd.
38. Mafumo, T.N. 1997. *Effective Management of Change*. Department of Educational Practice, Faculty of Education University of the North.

39. Mahlangu, D.M.D. 1987. *Educational Research Methodology*. De Jager- Haum Publishers Pretoria.
40. Marlea Clarke, 1998. *Reforming Education In An Economic Climate of OutBack: Is This Possible?* The Teacher, Volume 1.
41. Maseko, T. 1997. *Issues Surrounding Curriculum 2005*, "Running out of time to train." The Teacher, Volume 2, No 5, May 1997.
42. Meyer, E. 1983. *Energos (Teach, Learn, Instruct, Lecture, Discuss)* Aviation Publications (Pty) Braamfontein: Aviation Publications.
43. Monobe, R.J. 1991. *Media Training of Student Teachers In Venda*, Faculty of Education, RAU, Johannesburg.
44. Michael, G. Fullan 1996. *The Meaning of educational Change*, Amsterdam Avenue, New York.
45. Mukhavhuli S. 1998. *Highlights and achievements of the Northern Province Department of Education, Arts, Culture and Sport*, Konrad-Adenauer - Striftung Pietersburg RSA.
46. Mulder, J.C. 1982. *Statistical Technology in Education*. Haum Educational Publishers, Pretoria.
47. *NPDE -Towards Better Understanding and Efficient Implementation of Learning Programmes for the Foundation Phase*, June 1998.
48. Oosthuizen, S.J.P. 1994. *The Role of Audiovisual Service Units within Organizations*, University of Stellenbosch.
49. *Outcomes - Based Education in South Africa, Background Information for Educators*, March 1997. National Department of Education.
50. Prinsloo, J. & Criticos C. 1991. *Media Matters in South Africa*. Media Resource Centre, Natal: Creda Press.
51. Rambani M.M. 1996. *Curriculum Development And Staff Development Practices in Colleges of Education in The Northern Province*. University of the Orange Free State, Bloemfontein.
52. Ramutumbu M.S. 1998. *The Implementation of Educational Media by Biology Teachers in the Thohoyandou Area*, RAU, Johannesburg.
53. Richard N. Tucker, 1986. *The Integration of Media Into the Curriculum*, Netherlands Institute for Audio Visual Media.
54. Rowntree, 1985. *Educational Technology in Curriculum Development*, 2nd edition, Harper Raw Publishers, London.

55. Rowntree, 1995. *Teaching Through Self Instruction*, Nichols Publishing: New York.
56. Roy Killen, 1996. *Outcomes - Based Education*, Rethinking Teaching.
57. *The Educator's Voice -The paper for teachers by teachers*, November 1998 Volume 2 No.2.
58. *The New Teacher, Gear and Education*, Volume 5, No 1 1998.
59. *The New Teacher*. Journal of SADTU, Volume 4, No1, February 1997.
60. *The Teacher*, May 1997.
61. Van der Horst H. & Mc Donald R. 1997. *OBE-Outcomes Based Education*, A Teacher's Manual Kagiso Publishers.

1. Personal Background.

1.1 Gender

(a) male

(b) female

1.2 AGE GROUP

(a) 15 - 22

(b) 23 - 28

(c) 29 - 34

(d) 35 - 39

(e) 40 - 44

(f) 45 - 49

(g) 50 - 54

(h) 55 - 59

1.3 HIGHEST ACADEMIC QUALIFICATIONS.

(a) STD 10

(b) B.A. (Ed)

APPENDIX A

SECTION A: PERSONAL BACKGROUND DATA.

INSTRUCTIONS:-

1. Please answer all questions.
2. Indicate your response by making a tick in the box next to your answers.
In some cases you will be required to write your answer in the space provided, please, do so.
3. The concepts Educational Technology and educational Media will be used interchangeably.

1. Personal Background.

1.1 Gender

Name	Institution	Year Completed
(a) male <input type="checkbox"/>		
(b) female <input type="checkbox"/>		

1.2 AGE GROUP.

- (a) 18 - 22
- (b) 23 - 28
- (c) 29 - 34
- (d) 35 - 39
- (e) 40 - 44
- (f) 45 - 49
- (g) 50 - 54
- (h) 55 - 59

1.3 HIGHEST ACADEMIC QUALIFICATIONS.

- (a) STD 10
- (b) B.A. (Ed)

- (c) BS.C. (Ed)
- (d) BA (Hons)
- (e) B.Ed
- (f) M.Ed
- (g) Others (Please specify)-----

1.4 HIGHEST PROFESSIONAL QUALIFICATIONS.

- (a) STD
- (b) PTD
- (c) MED
- (d) UED
- (e) Others (Please specify)-----

1.5 FURTHER OR SPECIAL TEACHING QUALIFICATION (S)

Name of Qualifications	Institution	Year Completed
(a)-----	-----	-----
(b)-----	-----	-----
(c)-----	-----	-----

1.6 TEACHING EXPERIENCE.

- (a) Less than 5 years
- (b) 5 - 10 years
- (c) 11 - 15 years
- (d) 16 - 20 years
- (e) 21 - 25 years
- (f) More than 25 years

1.7 Your experience of teaching grade one.....years.

1.8 On average how many Grade One learners enrolled in your class per year during the last two years.

- 0 - 24
- 25 - 35
- 36 - 45
- 46 - 55
- 56 - 65
- 66 - 75
- Over 75

1.9 Did you undertake any training in teaching media as a component of your teacher training?

- YC
- YM
- NNW
- NNA

1.9.1 How long was that training?-----years

1.9.2 In which areas of teaching media did you mostly train?-----

1.9.3 How would you assess that training in terms of the following:-

(i) its relevance to your Grade One teaching of Curriculum 2005.-----

(ii) its applicability to Curriculum 2005 at Grade one level.-----

1.9.4 To what extent do you consider yourself competent to apply effectively the teaching media as prescribed in Curriculum 2005 for Grade One.-----

SECTION B: TEACHER'S PERCEPTION ABOUT THE USE OF EDUCATIONAL TECHNOLOGY IN CURRICULUM 2005 FOR GRADE ONE.

1. In this study Educational Technology means all educational media purposely utilised in the teaching learning situation. Do you agree? If not, what is your view?-----

2. Do you think that using teaching media in implementing the Grade One Curriculum 2005 component is necessary?

YC

YM

NNQ

NNA

3. Do you understand the rationale for media-centred learning at Grade One as in Curriculum 2005?

YC	<input type="checkbox"/>	
YM	<input type="checkbox"/>	
NNQ	<input type="checkbox"/>	
NNA	<input type="checkbox"/>	

4. Do you agree with the notion of using teaching media at this level?

SA	<input type="checkbox"/>	
A	<input type="checkbox"/>	
D	<input type="checkbox"/>	
SD	<input type="checkbox"/>	

5. If you do not agree what are your reasons?

(i) Video

6. Do you think the use of teaching media in Grade One class in this region is practicable as intended by Curriculum 2005?

YC

YM

NNQ

NNA

6. If not, what are the reasons?

7. The following table shows a list of educational technology that can be used in your class. Indicate by putting a tick in the spaces provided whether the medium is available or not available at your school.

Educational Technology	A	NA
(a) Wall charts		
(b) Graphs		
(c) Photos		
(d) Posters		
(e) Models		
(f) Radio		
(g) Tape recorder		
(h) Audio cassettes		

(i) Video tapes		
(j) Chalkboard		
(k) Slides		
(l) Filmstrips		
(m) Computer		
(n) Newspaper supplements		
(o) Magazines		
(p) Television		
(q) Flannel boards		
(r) Bulletin boards		
(s) Others (Please specify)		
(u) -----		
(v) -----		

9. In your opinion, to what extent do you think learners in Grade One classes in this region understand technology used in Curriculum 2005?

- Very well
- Well
- Not well
- No, not at all

10. Are learners able to follow the language used in technology?
- Yes mostly
- Mostly
- No, not well
- No, not at all
11. Are learners able to comprehend the different concepts used in technology?
- Yes mostly
- Mostly no
- No, not well
- No, not at all
12. The use of educational technology should encourage learner-centeredness
- SA
- A
- D
- SD
13. To what extent do you agree that Educational technology facilitates teaching and learning?
- SA
- A
- D
- SD
14. If you disagree, please state your reasons:-----
-
-
-
15. Are learners interested in the language used in technology?
- YC
- YM
- NNQ
- NNA

SECTION C: AVAILABILITY AND USE OF EDUCATIONAL TECHNOLOGY

16. Are learners able to apply Educational technology for Curriculum 2005?

YC	<input type="checkbox"/>
YM	<input type="checkbox"/>
NNQ	<input type="checkbox"/>
NNA	<input type="checkbox"/>

17. To what extent do you agree that it is necessary to use educational technology in your lessons for Grade One?

SA	<input type="checkbox"/>
A	<input type="checkbox"/>
D	<input type="checkbox"/>
SD	<input type="checkbox"/>

18. If you disagree, please state your reasons.-----

19. To what extent do you agree with the following statements in as far as using Educational Technology is concerned.

		SA	A	D	SD
1. There are no Educational technology at our school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. I have no time to prepare the Educational Technology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. I lack guidance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. I lack knowledge of using Educational Technology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

20. Are you as a teacher motivated to use Educational media in your lessons?

YC	<input type="checkbox"/>
YM	<input type="checkbox"/>
NNQ	<input type="checkbox"/>
NNA	<input type="checkbox"/>

SECTION C: AVAILABILITY AND USE OF TECHNOLOGY.

1. On average, to what extent have you used the following types of media since you started implementing Curriculum 2005 in your Grade One classes.

Type of technology	Always	Sometimes	Seldom	Never
a. Wall chart				
b. Graphs				
c. Photos				
d. Posters				
e. Models				
f. Radio				
g. Tape recorder				
h. Video tapes				
i. Chalkboard				
j. Slides				
k. Filmstrips				
l. Computer				
m. Newspaper Supplements				
n. Magazines				
o. Television				
p. Flannel boards				
q. Bulletin boards				

r. Overhead projector				
s. Other [please indicate]				
t. -----				
u. -----				

2. To what extent do you agree with the notion that, If used appropriately, Educational Technology is known to enhance learning?

SA

A

D

SD

3. Do you agree with the notion that learning becomes more stimulating with the use of different types of educational technology?

SA

A

D

SD

4. To what extent do you agree that there should be collaboration among teachers in the same school and neighbouring schools in the use of media.

SA

A

D

SD

5. Is there electricity available at your school?

Yes

No

Unsure

6. If not, how do you improvise?-----

7. Are Educational media relevant for Curriculum 2005 available at your school?

Yes

No

Unsure

8. If not, how do you improvise?-----

9. Which do you consider to be the best Educational media for Curriculum 2005?

10. If not, what do you think are the problems?-----

11. To what extent would you agree that the following problems exist in schools as far as using educational technology in implementing Curriculum 2005 is concerned.

Problems	SA	A	D	SD
(a) Lack of educational technology in schools				
(b) Lack of knowledge of using educational technology				
(c) Lack of guidance				
(d) Unwillingness to integrate media in lessons				

12. In your opinion, do you agree that Grade One teachers implementing Curriculum 2005 have enough knowledge to implement this Curriculum?

Yes

No

SECTION D. TECHNOLOGY AND CURRICULUM 2005.

1. In your opinion, do you agree that Grade One teachers implementing Curriculum 2005 have enough knowledge?

- SA
- A
- D
- SD

2. Are teachers coping with Curriculum 2005?

- | | SA | A | D | SD |
|------------------------------|----|---|---|----|
| YC <input type="checkbox"/> | | | | |
| YM <input type="checkbox"/> | | | | |
| NNQ <input type="checkbox"/> | | | | |
| NNA <input type="checkbox"/> | | | | |

3. If not, what do you think are the problems?-----

4. To what extent would you agree that the following problems exist in schools as far as using educational technology in implementing Curriculum 2005 is concerned.

Problems	SA	A	D	SD
(a) Lack of educational technology in schools				
(b) Lack of knowledge of using educational technology				
(c) Lack of guidance				
(e) Unwillingness to integrate media in lessons				

5. In your opinion, do you agree that Grade One teachers implementing Curriculum 2005 have enough knowledge to implement this Curriculum?

- SA
- A

D

SD

6. Are teachers coping with Curriculum 2005 issues?

YC

YM

NNQ

NNA

7. Some people are uncertain about the future of OBE due to the following reasons. Do you agree with them?

	SA	A	D	SD
(a) Lack of resources				
(b) Overcrowding				
(c) Lack of support from management				
(d) Resistance to change				
(e) Negative attitude				
(f) Uncertainty to venture into the future				
(g) Using lack of resources as a scapegoat				

8. Grade one teachers should receive training in using media to teach curriculum 2005 effectively.

SA

A

D

SD

9. Do you agree with the notion that to integrate Educational technology in implementing Curriculum 2005 is important?

SA

A

APPENDIX B

D

SD

10. Is your school adequately equipped to implement curriculum 2005 in terms of the following:-

	YC	YM	NNQ	NNA
(a) Funding				
(b) Expertise				
(c) Resources and Equipments				
(d) Other (please indicate)				

11. What recommendations would you give in order for OBE to succeed?-----

THANK YOU FOR YOUR CONTRIBUTION.

APPENDIX B

INTERVIEW SCHEDULE A

INTERVIEW WITH THE PRINCIPAL OF SCHOOL.

COMMENTS.

- | | |
|--|---|
| <p>1. How many learners / pupils do you have at your school?</p> <p>2. How many do you have in Grade One?</p> <p>3. What is your understanding of using Educational Technology in Grade One classes as reflected in Curriculum 2005?</p> <p>4. Do you think this is attainable in most schools in this region?</p> <p>5. What reasons would you give to support your argument?</p> <p>6. Would you say that your school is adequately supplied with educational technology ? Please explain.</p> <p>7. Are you satisfied with the application of OBE by your Grade One teachers? If not, what do you think should be done?</p> <p>8..Is your school adequately equipped to pursue OBE in terms of the following:-</p> <p style="padding-left: 40px;">(a) Funding</p> <p style="padding-left: 40px;">(b) Expertise</p> <p style="padding-left: 40px;">(c) Resources and Equipments</p> <p>9. If not, explain why?</p> | <p>1.-----</p> <p>2.-----</p> <p>3.-----</p> <p>4.-----</p> <p>5.-----</p> <p>6.-----</p> <p>7.-----</p> <p>8.(a)-----</p> <p>8.(b)-----</p> <p>8.(c)-----</p> <p>9.-----</p> |
|--|---|

10. Who provides funds for buying Educational media?
11. Are Grade One teachers qualified enough to use Educational media in their lessons?
12. Do you and teachers in Grade One attend OBE workshops, seminars and conferences?
13. If not, why?
14. Where would you invest more given money for resources? (E.g. educational technology, Laboratory chemicals etc.)
15. How does Curriculum 2005 and the Educational media suggested balance in real life situations?
16. Are Grade One teachers qualified enough to use educational media in their lessons? If not what should be done?
17. Are grade one teachers capable of implementing educational media in their lessons?
18. If not, what do you recommend should be done?
19. In your opinion, do you think teachers understand the philosophy/rationale for using Educational Technology in Grade One as outlined in Curriculum 2005?
20. Is there any relevance of prescribed media for Grade One to:- (a) Learners' age
(b) Learners' interest
(c) Learners' abilities

10.-----

11.-----

12.-----

13.-----

14.-----

15.-----

16.-----

17.-----

18.-----

19.-----

20.(a)-----

20.(b)-----

20.(c)-----

21. Was there any training and orientation given to Grade One teachers in as far as Curriculum 2005 is concerned?

22. Was there any training and orientation give to Grade One teachers on the implementation of educational media in Grade One?

23. What did you as a principal experience in the school since the launching of Curriculum 2005?

24. Is there any adequate facilitation with regard to the use of Educational Technology in implementing Curriculum 2005?

25. What is the extent of teachers' expertise with regard to the use of Educational Technology in implementing Curriculum 2005?

26. Which are the major problems/weaknesses you encountered since the launching of Curriculum 2005?

27. Which are the major strengths that Curriculum 2005 have?

28. What recommendations can you give with regard to the implementation of Educational Technology for Curriculum 2005 in Grade One?

21. -----

COMMENTS

COMMENTS

22. -----

23. -----

24. -----

25. -----

26. -----

27. -----

28. -----

THANK YOU FOR YOUR CONTRIBUTION.

APPENDIX C

INTERVIEW SCHEDULE B

**INTERVIEW WITH TRAINER- FACILITATORS
AND SUBJECTS SPECIALISTS.**

COMMENTS

1. How would you describe or assess Grade One teachers of this province in terms of the following:-

(a) knowledge, skills and experience in the use of Educational Technology for Curriculum 2005 at Grade One

(b) motivation to use Educational Technology for Curriculum 2005 at Grade One.

(c) willingness of Grade One teachers in using Educational Technology for Curriculum 2005.

(d) the attitude of Grade One teachers towards the use of Educational technology in their lessons.

(e) willingness of Grade One teachers to participate in workshops held.

2. Is there any sufficient teaching and learning materials to help teachers in implementing the new Curriculum 2005?

3. To what extent were Grade One teachers prepared for their role of integrating Educational Technology in their lessons?

4. Would you say that teachers in Grade One are performing as expected in terms of media integration in lessons?

5. What have been your observation on this matter since the inception of Curriculum 2005? With regard to:-

1.(a)-----

1.(b)-----

1.(c)-----

1.(d)-----

1.(e)-----

2.-----

3.-----

4.-----

- (a) weaknesses that Curriculum 2005 have
- (b) strengths that Curriculum 2005 have
- (c) extent of teachers' expertise implementing Educational Technology in Curriculum 2005.

6. Do you agree with the fact that teachers need to be empowered through in-service training workshops in order to integrate Educational media technology in their lessons? If not, what can be done?

7. How do you rate the teacher's enthusiasm with regard to the new education system?

8. How is the attitude of teachers with regard to the use of educational technology in lesson?

9. Are you satisfied with the application of OBE by the Grade One teachers; Why?

10. Do these teachers attend workshops, conferences and seminars in OBE?

11. Which of the following educational technology are available at the schools you visited?

- (a) Models
- (b) posters
- (c) radios
- (d) tape recorders
- (e) televisions
- (f) computers
- (g) wall charts

5(a)-----

5(b)-----

5(a)-----

6.-----

7.-----

8.-----

9.-----

10.-----

11.(a)-----

11.(b)-----

11.(c)-----

11.(d)-----

11.(e)-----

11.(f)-----

11.(g)-----

12. Are grade one teachers capable of integrating Educational Technology in their lessons?
Please elaborate:

THANK YOU FOR YOUR CONTRIBUTION.

12.-----

13. What is the atmosphere of classes upon visit with regard to the following:-

- (a) Are there equipment and furniture in class?
- (b) Is the atmosphere conducive to instruction and learning?
Please elaborate:

13.(a)-----
13.(b)-----

(c) Do the classes look cheerful and bright?

13.(c)-----

(d) Are facilities in good condition?

13.(d)-----

14. What problems did you encounter during the training of teachers in OBE?

14.-----

15. How do you think you can solve these problems?

15.-----

16. Are teachers coping with Curriculum 2005 issues?

16.-----

17. What do you recommend should be done in order for OBE to succeed?

17.-----

THANK YOU FOR YOUR CONTRIBUTION.

The education system in South Africa is still characterised by a stark and enormous lack of resources.



The New Teacher: A New and Different Approach to Learning

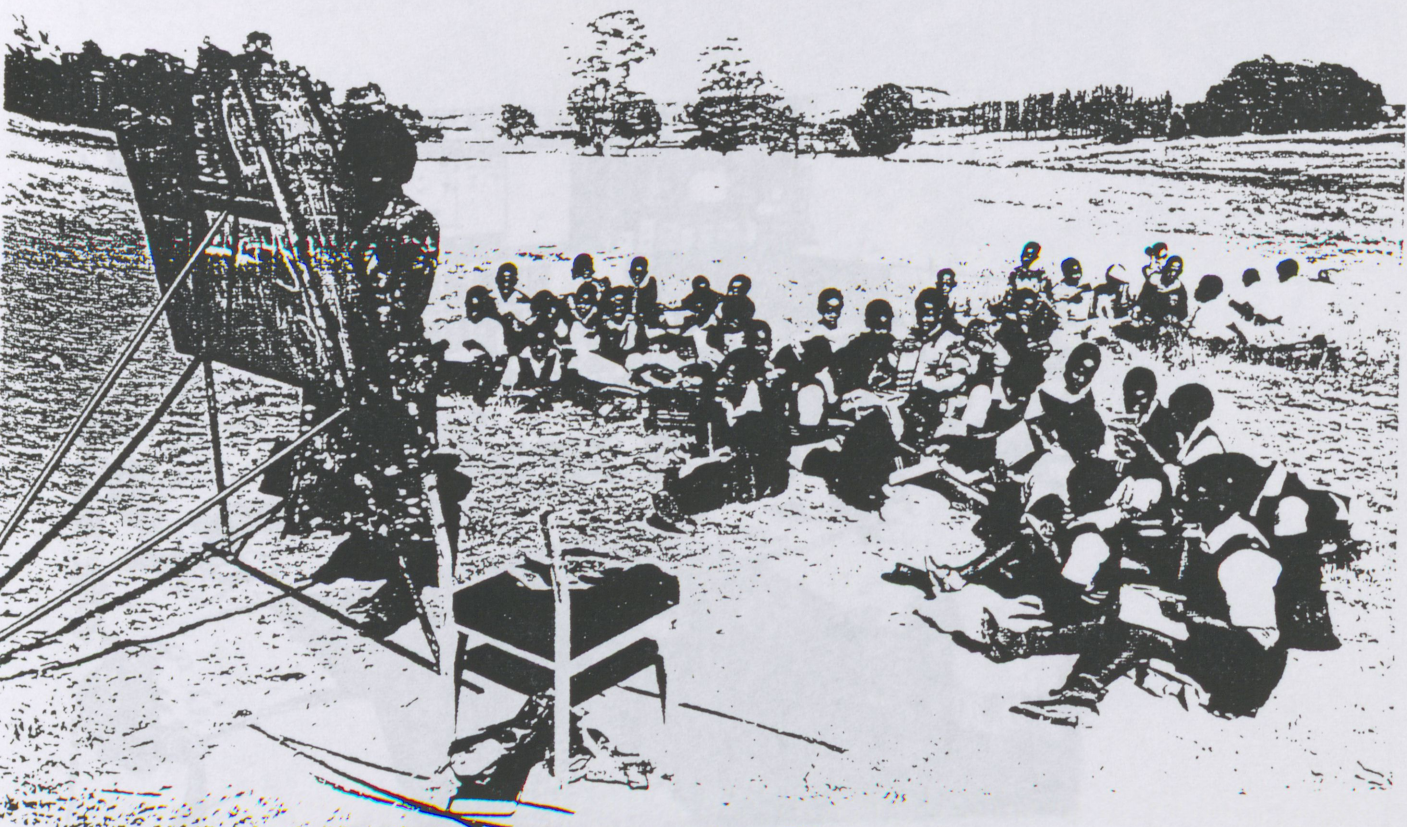
APPENDIX D

The education system in South Africa is still characterised by an enormous lack of resources.



The New Teacher, Gear and Education, Volume 5, No. 1, 1998.

APPENDIX E



ole of the state: government has to ensure the fair and equitable distribution of resources.

The New Teacher, Gear and Education, Volume 5, No. 1, 1998.

APPENDIX F



Trial project: "the enthusiasm, commitment and dedication of the vast majority of Grade One teachers was encouraging"

The New Teacher, Gear and Education, Volume 5, No. 1, 1998.



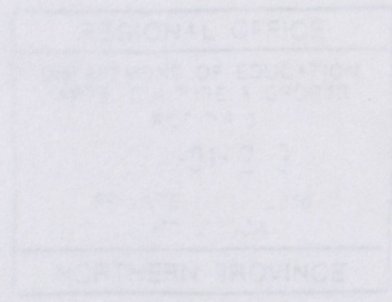
CURRICULUM 2005



**When I hear it, I forget it.
When I see it, I remember it.
When I do it, I know it.**

CURRICULUM STUDIES & TEACHER EDUCATION

MEMORANDUM



TO : Mr Mathivha
The Regional Director
THOYANDOU REGIONS

FROM : MR Lumadi M.W. (Prof E.L.M. Bayona)

DATE : 26 November 1998

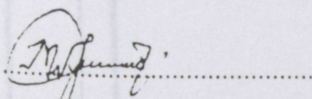
SUBJECT : REQUEST FOR DATA COLLECTION FOR M.ED PROGRAMME

On behalf of the School of Education, Department of Curriculum Studies and Teacher Education, a request is hereby made for the following:

Kindly allow RAMBANI T.E. (Mr/s) Student Number 9723534 to collect data at some of the schools within your region. This will be conducted with effect from 1999. The data to be gathered is for postgraduate studies at the above-mentioned institution. The analysis and findings thereof will also enable us to uplift the standard of education in our democratic country.

Should permission regarding this matter be granted, it would be highly appreciated. Do not hesitate to contact the writer should more information be required.

Yours Faithfully



LUMADI M.W.





NORTHERN PROVINCE

EDUCATION, ARTS, CULTURE & SPORTS

REF: 8/3/1.
ENQ: MAKUYA M.E.

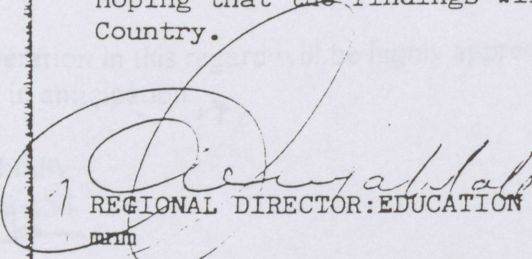
TO: RAMBANI T.E.
UNIVEN
P/BAG X 5059
THOHOYANDOU

REGIONAL OFFICE
DEPARTMENT OF EDUCATION, ARTS, CULTURE & SPORTS REGION 3
1999-01-29
PRIVATE MAIL BAG 9700 SIBASA
NORTHERN PROVINCE

REQUEST FOR DATA COLLECTION FOR M.ED PROGRAMME.

This is to inform you that Rambani T.E. student number 9723534 has been granted permission to collect data at some of the schools within REGION 3 with effect from 1999.

Hoping that the findings will uplift the standard of education in our Country.


REGIONAL DIRECTOR: EDUCATION

mm

92

P.O. BOX 1028
SIBASA
0970
1999.03.16

The Principal
.....
.....
.....
.....

Dear Sir/Madam

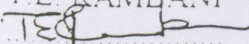
Re: PERMISSION TO CONDUCT RESEARCH.

I am hereby requesting permission to conduct research at your school on the 23rd or the 24th of March 1999

The research respondents shall be the principal and Grade One teachers The research topic is
**THE PERCEPTION OF GRADE ONE TEACHERS TOWARDS THE USE OF
EDUCATIONAL TECHNOLOGY IN IMPLEMENTING CURRICULUM 2005.**

Your cooperation in this regard will be highly appreciated.
Thank you in anticipation.

Yours Faithfully

T E RAMBANI


93

- setting a problem. (Freysen and Briel, 1989:39)



Kruger & Muller (1988:106) observe that "an illustration, picture, transparency, or real object (racket, fruit or vegetable) plays an important role in this phase." And Louw (1993:40) adds

"New learning content should be linked to the pupil's existing knowledge of the lesson topic. This will ensure that pupils feel secure, which will allow them to become involved in the lesson more easily." During the introductory phase of the lesson, revision is done, prior knowledge is tested and interest is created in the content. This is considered to be just the introduction and is short.

UNLOCKING PHASE

In the unlocking phase, the new content is presented to the learner. During this phase, media are integrated in order to unlock the learning content. It is therefore important that the very best medium is used in this activity (Freysen and Briel, 1989:39).

Kruger & Muller (1988: 106) elaborate on the unlocking stage;

During this phase, the teacher directs the pupils attention to the poster, sketch, or illustration which facilitates instruction and optimizes learning. Thus an explanation by the teacher could also take place by using a model, a map or an example".

Louw (1993:41) also suggests that "During the course of the lesson the teacher should take the developmental level of the pupils into account. Once new learning content has been mastered, it should be put to functional use by the learners. In his lesson design the teacher should create opportunities for the pupils to demonstrate their mastery of the new learning content and for application of new knowledge."