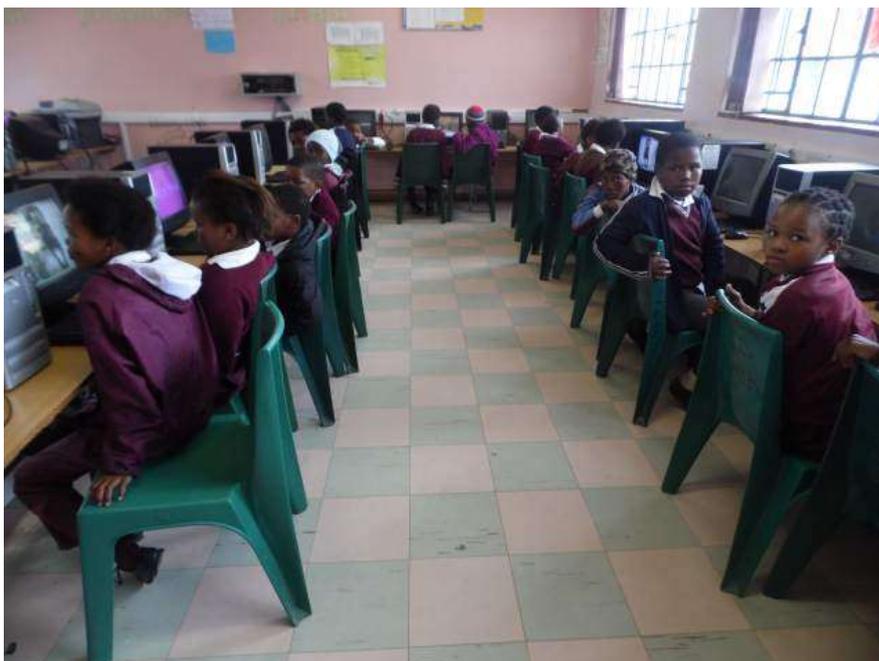


February to May 2014

Hermann Ohlthaver Trust

NMMU report of ICT training and support

February to May 2014



Faculty of Education

CONTENTS

1. INTRODUCTION.....	3
2. PROGRESS 2014	3
2.1 La Trobe Primary.....	3
2.2 Rietberg Primary.....	5
2.3 Zanoxolo Primary School	6
2.4 Sandisulwazi HS Paterson	7
3. PROGRAM FOR MAY AND JUNE 2014.....	7
4. RESEARCH PUBLICATIONS.....	8
5. CONCLUSION.....	8

February to May 2014

1. INTRODUCTION

So far this year four schools have been engaged in the ICT activities. These schools are La Trobe Primary (Enon), Sandisulwazi High (Paterson), Rietberg Primary (Kirkwood) and a new school, Zanoxolo Primary (Port Elizabeth). Mr Preston Geswint is playing a very important role in this initiative as he visits the school and assists them on a weekly basis.

We have also added another initiative, Virtual Classroom Science Education from Port Elizabeth to Paterson High School.

We are very appreciative of the continual funding provided by the Hermann Ohlthaver Trust through Mr Alan Appel.

2. PROGRESS 2014

A brief overview of what has been done from February to May per school will be elaborated upon in the following sub-sections.

The focus for 2014 at primary schools will be more on learner development. Teacher training will continue as there is still a great need and demand from the schools concerned. Research into aspects of language literacy will also be supported through this engagement with the schools. Mathematical skills and literacy will also have a special focus during this year. The objective is to improve learners' skills in these areas with the aid of language and mathematics software. By making learning fun and exciting we hope to see a shift in attitude by learners towards language and mathematics. This positive shift in attitude was noticeable last year at Sandisulwazi High amongst Grade 8 and 9 learners after constant exposure to a computer based mathematics program. We have also started with online virtual teaching at Sandisulwazi High at Paterson.

2.1 La Trobe Primary

- Work at La Trobe recommenced during March with two consultation sessions with the staff to plan for the rest of this year. We are working with Grades 5-7 and they are slotted on the time table on Mondays. Six sessions are conducted with each class split in two.

The numbers of pupils involved for 2014 are:

Grade 5	30
Grade 6	19
Grade 7	21

February to May 2014



The grade 6 and 7 learners already had exposure the computers during 2013. Very noticeable then was the difficulty learners have with basic mathematical operations when working with a mathematics program (Tux Math of Command).

During April, all learners were orientated with the computer room. They were taken through the following:

- Start-up, log-on and shut down procedures.
- Basic keyboard and mouse skills
- Elementary file management procedures. Each learner has created a personal folder which will serve as a personal portfolio.

From May to June, the learners will be introduced to another program (Mathemagic) in addition to Tux Math of Command. Both programs are fun and interactive containing mathematics drilling exercises and will hopefully have a positive impact on the learner's performance in maths. All teachers will also be exposed to the programs so that learners can access the computers during the rest of the week.

The internet connectivity in Enon has not yet been fully resolved. It seems that 3G connectivity is the best option. The Vodacom signal is still too weak. Telkom 3G is explored currently as a possible option.

February to May 2014

2.2 Rietberg Primary.

There were two consultation sessions with the staff of this school during March 2014. Due to the high numbers of learners we will concentrate only on the Grades 5 and 6 learners initially. During terms 3 and 4 we hope to also involve grade 7 learners. The objective of the school is to have all learners accessing the computer lab. The resources are limited at this this stage to implement this idea.



The numbers of learners involved for 2014 are:

Grade 5	91
Grade 6	85

Tuesdays and Wednesdays have been set aside for Rietberg. Six sessions per day are used to accommodate all learners.

Until now, the entire grade 5 and 6 were taken through the following:

- Start-up, log-on and shut down procedures.
- Basic keyboard and mouse skills. Here the approach is more integrated. Learners have created a spread sheet of their class group. Keyboard and mouse skills are further enhanced with learners populating the spread sheet with data. The same approach will also be used at other schools.
- Elementary file management procedures. Each learner has created a personal folder which will serve as a personal portfolio.

February to May 2014

Teacher Training at Rietberg: Five Teachers has started training on Wednesday afternoons. They are: Mr Jonas, Mrs Fletcher, Mrs Voetpad, Mrs Van Wyk and Mrs Cedrass. At present the teachers will undergo basic skills training and later they will be introduced to the software to which the learners are to be exposed to.

2.3 Zanoxolo Primary School

During March we consulted with the acting principal and ICT committee and agreed to offer technical support and training during 2014. The school suffered a burglary which left the computer room dysfunctional.

During April we assisted to get the computer room operational again. At present 27 computers are functional and a further 5 will be repaired. We will also restore and reconfigure the network infrastructure which is in place. The school will look into financing internet connectivity in the near future.



Training with learners started towards the end of the month. As with the other schools the focus will be on the grade 5 and 6 learners mainly.

The learner numbers are as follow:

Grade 5	125
Grade 6	115

February to May 2014

Training occurs on Thursdays. Six one hour sessions are used per day. Only learners are accommodated at this stage but there is a demand from the school that teachers also be trained for at least one hour after school.

At Zanoxolo, most learners have had previous exposure to computers. They are over-zealous when in the computer room and know how to access Microsoft games. They generally have reasonable keyboard and mouse skills. One weakness of the previous training is that basic procedures for the correct use and care for the computers is lacking. Correct shutdown procedures was never emphasised and many computers have hard drive issues as a result. This procedure was drilled during our first session late April when training commenced. We expect faster progress at this site once training recommence during May.

2.4 Sandisulwazi HS Paterson

Support to Sandisulwazi has been taken to a new exciting level with the establishment of a video link between the Science Laboratory and a Facilitator (Dr Jeff Ilsley) based in Port Elizabeth. Dr Ilsley is now conducting Science lessons for Grades 10-12 on Tuesdays and Wednesdays.

Lessons are interactive with learners being able to communicate with the facilitator. This also serves as mentoring for the teachers involved as they are always present during the transmissions.

The school timetable has been adapted to accommodate this venture in such a way so that the sessions are scheduled in set time slots.

3. PROGRAM FOR MAY AND JUNE 2014

Training for learners at the three schools will take a threefold approach:

- Continuing with basic computer skills
- Improving mathematical literacy
- Using online and installed multimedia resources to do research projects

Lessons will be divided into two to three sections to accommodate the above three aims.

Tux Math of Command and Mathemagic will be used for improving the learner's attitude and confidence in mathematics. Each lesson will have 10-15 minutes dedicated to this. Learners will also be introduced to spread sheets to do topics such as data handling.

February to May 2014

At Rietberg, where there is internet access, learners will be introduced to online resources. At La Trobe and Zanoxolo we will use installed multimedia such as Microsoft Encarta to introduce learners to do research on themes and topics as prescribed by teachers of different learning areas. This will be integrated with using word processing and presentation software.

Teacher training: This will continue parallel to learner programs. The objective here is for teachers to become comfortable enough to accompany learners to the computer lab.

4. RESEARCH PUBLICATIONS

Dr Andre' du Plessis and Prof Paul Webb have been invited to share their ideas pertaining to ICT and Scientific Literacy at the IXth IOSTE SYMPOSIUM FOR CENTRAL AND EASTERN EUROPE Science and Technology Education for the XXIst Century at the University of Hradec Králové in the Czech Republic. This invitation was received after the conference organiser of the Czech Republic heard my presentation in October 2013 in Siauliai, Lithuania. The presentation was also selected to be published in an international journal (see below):

- Du Plessis, A. (2013). Wikis and Power Points as cognitive development tools in Scientific Literacy: A Proposed Heuristic. *Problems in Education in the 21st Century*. 57, 25-47.

The presentation and paper to be presented in the Czech Republic in September 2014, is:

- Du Plessis, A. and Webb, P. (2014, forthcoming). A heuristic for the design and practical implementation of ICT based animated learner designed cartoons for the promotion of scientific literacy thinking. Keynote plenary presentation at the IXth IOSTE SYMPOSIUM FOR CENTRAL AND EASTERN EUROPE Science and Technology Education for the XXIst Century at the University of Hradec Králové in the Czech Republic.

5. CONCLUSION

We are grateful for the positive contributions to the schools that the team is providing. We intend to continue our assistance to these schools in order to narrow the digital divides.

Andre du Plessis, Preston Geswint and Paul Webb