

# **Hermann Ohlthaver – NMMU ICT Engagement 2017**

Report on Semester 2

[June to September]

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## 1. Introduction

In this Semester 2 report, we will be providing an overview of what we have been involved since our Semester 1 report that covered January 2017 to May 2017, as well as what still will be done during October and November 2017. We will also provide an overview of our second flagship project at Chubekile Secondary School which is starting to pick up momentum.

## 2. Schools where we are currently assisting

In the following sub-sections, we will be reporting about two schools that we currently assist.

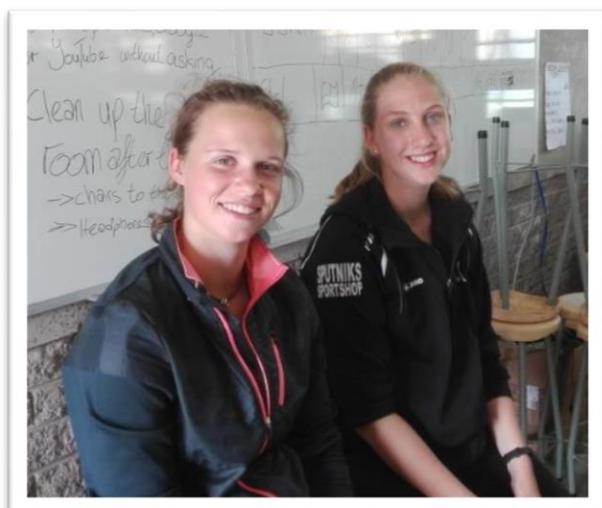
### 2.1 Charles Duna

The computer lab at the school has now become the real centre for teaching and learning and is always occupied by a class of learners. Mrs Gotyana has continued with the grade 4 and 5 learners doing Natural Science and Technology. The grade 6 and 7 learners also continue using the lab on a daily basis with the help of the German volunteers.

Imke and Jobst continued their work until mid-August when their stay in Port Elizabeth ended. As a result of their work the grade 6 and 7 learners has made remarkable progress in the following areas:

- Improved word processing skills.
- Use of presentation software.
- Internet browsing, retrieving of information and using these skills to complete projects.

Imke and Jobst have now been replaced by 2 new volunteers, viz. Johanna and Marie, pictured below.



***Johanna (left) and Marie. The new German volunteers.***

The new volunteers were fully briefed by the previous two as to their role in the computer lab. They expressed their willingness to continue to build on the work done by their predecessors. They are already very active with the senior grades in the lab.



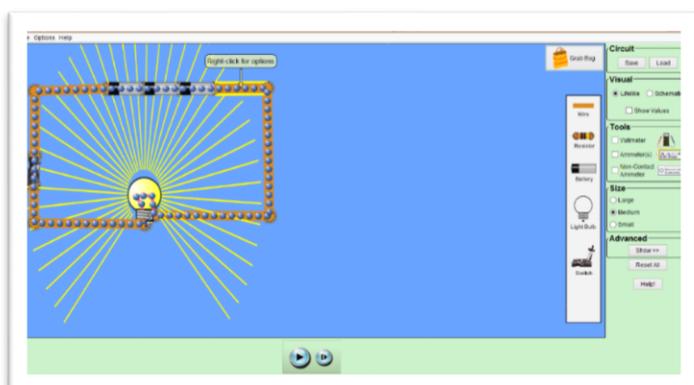
**Grade 6 learners using the lab.**

### 2.1.1 PhET Simulation software

We have started to introduce learners to Science simulation software by using PhET. PhET was:

*“Founded in 2002 by Nobel Laureate Carl Wieman, the PhET Interactive Simulations project at the University of Colorado Boulder creates free interactive math and science simulations. PhET sims are based on extensive education research and engage students through an intuitive, game-like environment where students learn through exploration and discovery”.*  
[\(https://phet.colorado.edu/\)](https://phet.colorado.edu/)

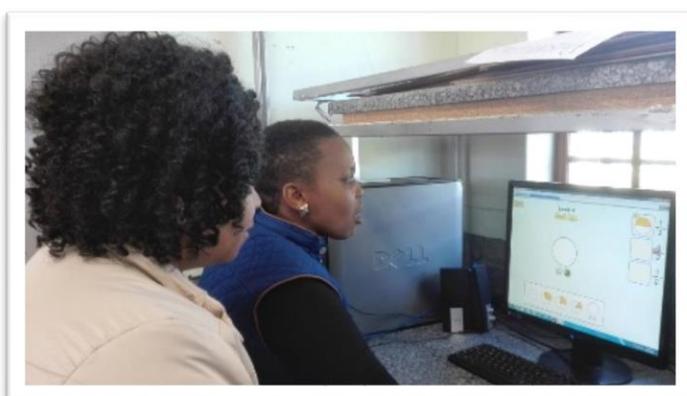
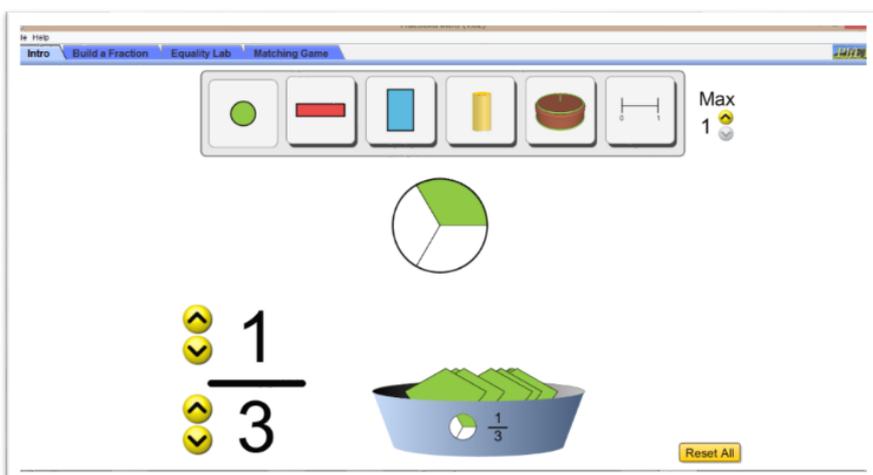
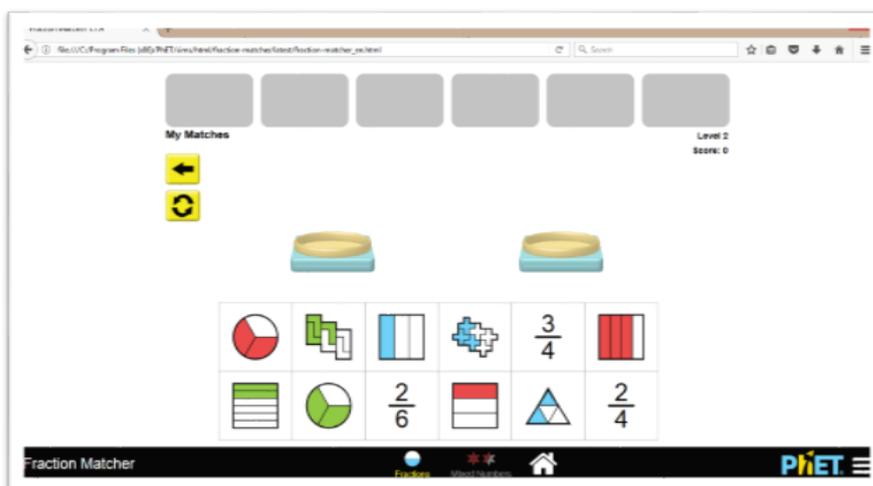
Training was provided to Ms. Gotyana, Johanna and Marie in using the simulations. We focused on teaching and learning of electrical circuits as this topic is currently being taught in Natural Science. Ms Gotyana will use this simulation in class to teach the topic to grade 4 and 5 while the learners will be able to create their own circuits in the computer lab. Johanna and Marie will teach the software to the grades 6 and 7 in the lab. Marie is particularly excited about PhET as she seems to be good at science.



**The PhET simulator used to create electrical**

### 2.1.2 PhET for Mathematics teachers

Presently, two mathematics teachers were trained to use PhET sims namely Mrs Oliphant (Foundation Phase) and Ms Solwandla (Intermediate Phase). Both of them are excited to use the software in class for teaching, as well as in the lab for their learners to practice with. It can be used to teach a variety of mathematics concepts. See pictures below showing simulations of fractions.



*Mathematics teachers, Oliphant and Solwandla using the PhET simulations during training*

## 2.2 Chubekile High School

Extensive consultations with the school took place during term three to determine the interventions required. Parallel to this consultation process, the preparation of the existing infrastructure also took place. The computer network needed final set-up, as the original contractors never completed it. Mr Preston Geswondt also facilitated the installation of the internet for the computer lab. This is now complete.

The following training interventions were agreed upon are as follow:

- Use of data projectors (technical setup of the equipment).
- Using the projection equipment in lesson delivery.
- Search and downloading of Resources for subjects in particular Accounting, EMS, Mathematics and Science.
- Teachers and learners using Khan Academy and PhET for learning and teaching in the computer lab.
- Training in the use of the eBeam interactive whiteboard system.
- Use of tablets by learners.

Training has commenced with 10 teachers in the use of the projection equipment. Teachers were required to demonstrate their ability to set up a data projector with a laptop and to project onto a screen. Training will resume on 09 October 2017 when schools reopen after recess.



***Chubekile Teachers learning to set up data projectors.***

## 2.3 CCS Schools

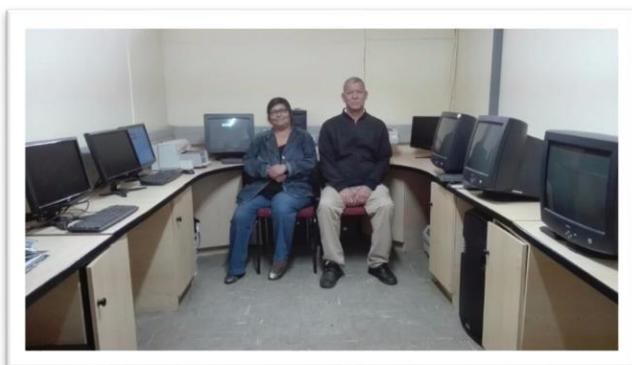
The following schools have also been assisted and what has been done will be elaborated upon below.

### 2.3.1 Bertram High School

The administration network was reconfigured and the SASams system reinstalled on all the administration computers. This network is now fully functional and the capturing of all school data is now possible without the problems of the past.

### 2.3.2 Arcadia High School

The administration network with SASams has been set-up. Data capturing is now occurring across the network. Five computers that make up the teacher resource room has been reconfigured. These computers link up with the administrative network. The resource room will be used for data capturing as well as a place where teachers can do their daily tasks. Skills training of teachers will also be held here.



*Teacher Resource room, part of the admin network.  
Mrs Allison (dep principal) en Mr Muller*

Computer skills training will be done in term 4. The initial training agreed upon are as follows:

- Basic word processing to enable teachers to produce question papers and worksheets.
- Basic presentation skills using slides. This will include browsing the internet for relevant resources (PowerPoint) and the adaptation thereof.
- How to use the tablets effectively.

### 2.3.3 Chatty High School

A mini SASams network was created to capture all school data. Two admin clerks were trained in the effective use of the network. Other requests for training and assistance with the 'Rachel Plus' will be considered further during term 4.

### **2.3.4 Sancto High School**

Thus far, the school is being assisted by advising them to establish a wifi system that will serve the *'smart classrooms'*. The school is in the process of setting up the wifi. Training in the use of the interactive whiteboard equipment will start once the school is ready.

## **3. Conclusion**

It is evident that from our Semester 1 Report at the end of May 2017, that July to the end of September 2017 (three month period) has been quite busy, as evident from this Semester 2 Report. We will continue at full speed in October to the end of November 2017 to assist our schools. We would like to thank the Herma Ohlthaver Trust for their support, as without it, we will not be in a position to assist.