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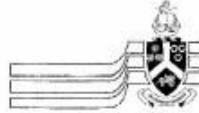
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Appendix A – Ethical Clearance Certificate



UNIVERSITY OF PRETORIA
 FACULTY OF EDUCATION
 RESEARCH ETHICS COMMITTEE

CLEARANCE CERTIFICATE	CLEARANCE NUMBER :	EM10/09/02
<u>DEGREE AND PROJECT</u>	PhD Innovative Teachers' Pedagogical Efficacy in their use of emerging technologies	
<u>INVESTIGATOR(S)</u>	Jacqueline Batchelor	
<u>DEPARTMENT</u>	Science, Mathematics and Technology Education	
<u>DATE CONSIDERED</u>	9 September 2011	
<u>DECISION OF THE COMMITTEE</u>	APPROVED	
<p>Please note: <i>For Masters applications, ethical clearance is valid for 2 years</i> <i>For PhD applications, ethical clearance is valid for 3 years.</i></p>		
CHAIRPERSON OF ETHICS COMMITTEE	Prof L Ebersohn	
DATE	9 September 2011	
CC	Jeannie Beukes Prof. M Nkomo	

This ethical clearance certificate is issued subject to the following conditions:

1. A signed personal declaration of responsibility
2. If the research question changes significantly so as to alter the nature of the study, a new application for ethical clearance must be submitted
3. It remains the students' responsibility to ensure that all the necessary forms for informed consent are kept for future queries.

Please quote the clearance number in all enquiries.

Appendix B – Letter of permission from Microsoft South Africa

Microsoft

Microsoft (S.A) (Pty) Ltd
3012 William Nicol Drive
Bryanston, Johannesburg 2191

PO Box 5817
Rivonia 2128
Johannesburg
Republic of South Africa

Tel: 0860 2255 67
International: +27 (0) 11 361-7000
Fax: +27 (0) 11361-7004
Reg. No. 1992/000839/07

www.microsoft.com/southafrica

9 June 2010

Dear Jacqueline Batchelor

PERMISSION TO CONDUCT RESEARCH TOWARDS A PHD (COMPUTER INTEGRATED EDUCATION)

I hereby grant permission for Jacqueline Batchelor, Student number: 82331792, to conduct research pertaining to past and current entries to the *Microsoft Innovative Teaching Forum Award* competition. Access is approved for materials available in the open domain as requested as well as recorded interviews and digital images of posters, notes, leaflets, and multimedia material presented and collected by various parties during the events.

The request regarding access to the participants as well as parties involved in the competition is approved within the ethical constraints as determined by the code of conduct binding educational researchers from the University of Pretoria.

Topic of Research: ***Emerging Educational Practice: A grounded theory study in innovative teachers' practices and pedagogical reasoning in teaching and learning with technologies***

Degree: ***PHD (Computer Integrated Education)***

Name of Institution: ***University of Pretoria***

Upon completion of the research project the researcher is obliged to furnish Microsoft Partners in Learning team with an electronic copy of the final research report.

Wishing you success in your academic pursuit.

Kind regards



Mteto Nyati

Managing Director

Directors: Mteto Nyati (Managing) Safeya Mahomed (Finance) Keith R. Dolliver (U.S.A) Benjamin O. Orndorff (U.S.A)

Appendix C - Interview questions

Questions to teachers during formal video taped interviews at the World Wide Innovative Teachers Forum Award in Hong Kong 2008

- 1. What were the main challenges you were facing in your job before you introduced this project?*
- 2. How did the technology support /help you to be more effective and what were the problems you had that were solved?*
- 3. Name at least three advantages that this project brought to your job and to your students? (focus on the results)*
- 4. Explain briefly why you consider this project as a major improvement in the learning process and explain the way you see the role of this project in future.*
- 5. How do you see the effects of the changes you made on your students and on you as a teacher?*

Question during informal interviews

1. Why do you perceive yourself as an innovative teacher?
2. Describe your local community. How involved are they in the school/
3. What are the primary markers/traits of an innovative teacher?
4. Tell me your story about becoming a teacher.
5. What is your understanding of the innovation process?
6. What have you been doing in your practice that you consider to be innovative?
7. What are the greater influences in your teaching career?
8. How long do you still want to be a teacher for?
9. What other interests do you have outside of teaching?

10. What has been a memorable moment in your teaching?
11. Why do you see yourself as an innovative teacher?
12. How did you become an innovative teacher?
13. What is your perception of innovative teaching? Give a concrete example.
14. How do you create an environment to grow and develop skills in other teachers?

Appendix D – Example of the information contained in a VCT

SAVUKA! – Waking up – doing things for yourself

Background to the Project

School

Ikanyegeng is a combined school (Grade 1 -12). The school is situated in the township of Ratanang in Jacobsdal. Jacobsdal forms part of the municipality of Letsemeng in the Xhariep district of the Free State. (Only 15 km from the Northern Cape boarder)

The greater part of the almost 800 learners attending the school, comes from a low socio-economic background. Most learners are living with their grandparents; while there parents are working elsewhere.

Less than 1% of the learners have access to computers at home.

All of the 23 educators teaching at Ikanyegeng have received some form of computer training; they have varying computer competency skills. Only 6 educators own their own computers.

The teachers

Vanita Coetzee: I hold a BSc (Honn) and a Higher Education Diploma(*cum laude*) from the University of the Free State.

For the past 12 years I have been teaching in various phases in different schools. For the last 4 year I have been teaching, Mathematics, Life Science and Physical Science, Grade 10-12 at Ikanyegeng Combined School.

I received training to be a facilitator for the RADS peer support group and was also trained by the Education Department to be a lay councilor for the children in need at our school. I had to learn how to bead and do other art and craft projects. I received training in ICT as part of the eLapa project, for which Ikanyegeng was a pilot school and was very fortunate to attend the BETT exhibition in London in 1995.

Me Rapulane and Me Delpont respectively teaching Business Economics and Arts & Culture has of great support in transferring special skills to the learners.

Project goals

The main goal of the project was: **To become healthy, positive, enthusiastic and excellent South African citizens**

Other goals of the project were to:

Teach learners entrepreneurial skills so that they will be able to start a small business when they leave school.

To teach learners to manage themselves and their time effectively.

To teach learners that they can agents of change in educating the community about HIV/AIDS, drug and alcohol abuse.

To get learners involved in community projects.

To teach learners that they have a responsibility towards the environment and can create something useful from recycled or waste material.

The planning and origin of the project

The RADS group was invited by Free State Department of Education, Xhariep District, Department Special needs, and AURORA to become involved in a project FIGHT FOR LIFE.

Learners had to hand in a business plan explaining what kind of business they would venture into and how they would involve others learners as well as the community to prevent drug and alcohol abuse. The business envisaged was an Art and Craft business. At a special event the group was rewarded R500.00 worth of material to set up their business as their business plan was one of the top 5 business plans received And so “**SAVUKA!**” – Waking up. Doing things for yourself, was born.

Learners had to learn new Art and Craft skills, they had to learn how to manage a business and how to communicate their message to the community at large.

AURORA would see the business as successful if it could be sustained for 6 months.

The curriculum context of the project

The project mainly addresses Life Orientation as a learning area, but has strong links to all other learning areas.

The ICT context

ICT was not part of the project initially but was incorporated, when the need arose to manage and advertise the business better.

At first learners did the business plan by hand but soon realized that it was much easier to effect changes to it when they were using a computer. They then started to use Microsoft Word. Most learners had no previous experience of using a computer. A market had to be found and a selling price was to be established for each completed object. Learners was encouraged to make use of **Microsoft Excell** to capture the price of every small bead or other material that was used in producing their craft pieces. As one of the five finalists of the FIGHT for LIFE project learners had to hand in a portfolio to present to the adjudicators. Suddenly they realized that they had to provide evidence of all work produced. I taught them how to use the schools digital camera and how to download their pictures to the computer, soon they where happily snapping away. They also started to record the minutes of meetings and their attendance register electronically.

As part of the final adjudication at a gala event held at Kopano Nokeng learners were required to make a display of their work as well as a presentation in the form of their choice. The learners,

by now, really fascinated by the computers and technology decided to make their presentation in the form of a **Power Point** presentation and to round it off by singing part of the school song.

To me it was really exciting to see the learners play around with different backgrounds, effects on photos and transitions.

But the ultimate thrill came when an official of the Department of Education wanted to download this presentation from a memory stick and found that the presentation it was password protected!! I was totally astounded. I never taught them how to do it; they discovered it totally on their own!

For this event learners used **Microsoft PowerPoint** to create ID cards with their names, photos and the logo of the school. They printed and laminated the ID cards and are still proudly wearing them with their HIV/AIDS pins.

Xhariep educational district requested us to write a report on how we experienced the gala event and how we intended to extend to project. I decided to start a **blog** (www.icssavuka.blogspot.com) where learners could voice their opinions and be able to read how others experienced the project. This posed to be a great challenge as the school's internet lines was down for the last 10 months. Where there is will, there is a way!

Learners are now using my personal laptop to get access to the internet and blog!

Learners realized that they needed to advertise their products better. So we approached Mr. Thato Mokoena at the Xhariep Educational Resource Centre to assist us in setting up a **website** for the SAVUKA project, what a thrill to be able to upload your own website that you are in charge of on the internet!

Learners also created pamphlets on **Microsoft Publisher** to promote the project under other learners in hope that the number of learners involved in the project will grow.

The project management

I am facilitating the project and teaching learners the skills that they need to have to manage themselves, their business, and the communication to the broader community.

The group meets on a weekly basis, but also take some work home, as they are really dedicated to the project.

Unfortunately the school does not even have enough classrooms for normal teaching activities and therefore could not allocate a specific venue to us. We made use of the staffroom, the hall, the science laboratories, the library, the computer room, and any other available class we could find.

Learners are in charge of the project but often use the skills and input from educators and members of the community.

APPENDIX E – EXAMPLES OF TRANSCRIBED STRUCTURED VIDEO INTERVIEWS

Andrew Douch

Anywhere Anytime Biology Class

Scripted video

(Narrator) Embracing emerging technologies that student's find engaging has extended the classroom beyond physical walls and limitations of a time table, making it accessible to students anywhere anytime.

(Text)I am a true student. I am enrolled in life... I don't just learn because of the assessment ahead of me. I learn because I love learning. So when the assessment is over, I still see myself as a student. In Biology I learned more than proteins and DNA(which were really cool) I learned what it means to be engaged with the educated people who love learning – and there's NO reason why that should be over just because I have completed an exam. Assessment measures learning, it is the reason for it. I want to keep learning biology... I therefore still consider myself a biology student.. so don't say I'm not.

(Andrew)The tools that I am using such as mobile phones or cell phones, Mp3 Players or MSN. These technologies are things that students use anyway. They already have them they already enjoy them. You don't have to work very hard to encourage students to use them. I can imagine

a kid sitting at home and he has got facebook open here or MySpace, or MSN and they are having a conversation about the weekend with some friends and then over here we have the biology discussion board and they are answering questions about biology and it fits in with student's lifestyle. That must be the most significant thing. We are not introducing new tools we are not trying to implementing new things. We are using technology the students already have and already enjoy. We are just giving a valid educational context for those tools to be used. And that makes them very successful.

As a result of this new way of learning we have seen quite a significant increase in student performance on external exams. The other thing that is important is just student engagement. Over the past few years when we have used podcasts and discussion boards, MSN and so on, there has been a significant leap in student engagement. I am seeing students with a passion for learning that in the previous 16 years I haven't seen.

Uncut version

What were the main challenges you were facing in your job before you introduced this project? How did the technology support /help you to be more effective and what were the problems you had that were solved?

I guess I have always tried to help students learn as well as possible. The biggest challenges that I have faced is that firstly the curriculum is so crowded and it is quite difficult to get through the course in time and you have to cover everything but you do it fairly shallow just to get through things. The second thing we were looking at is that students are very busy. Because we cannot do everything in class time we are expecting them to do these things at home for homework. A lot of the time they just don't have time to do everything that is required of them. So that was again another threshold challenge. What we are really doing is letting them take content, take studies out of those too difficult times, the crowded class time and the crowded home time and into their commute time.

Name at least three advantages that this project brought to your job and to your students? (focus on the results)

Firstly it can be the student learning, the student performing on an external exam and we have always done well, we have always worked hard but As a result of this new way of learning we have seen quite a significant increase in student performance on external exams. We have seen them perform up to a 12% better than predicted. Every student in the class performed higher than what was expected. Because they are external results it makes them very reliable. It would indicate that our learners are achieving better as a result of learning in this new way.

The other thing that is important is just student engagement. Over the past few years when we have been teaching using podcasts and discussion boards, MSN and so on, there has been a significant leap in student engagement. I am seeing students with a passion for learning that in the previous 16 years I just haven't seen. There are always student who are keen and enjoy school but the level of enthusiasm for learning is something that I have not really expected to see and that has been really exciting. So whether they are performing better because they are more engaged or they are more engaged because they are learning better it is very hard to tell. In fact it is a bit of both they are probably learning better because they are performing better and they are performing better they are more engaged as well. are learning better . It is very difficult but I think both of those things are true. They are learning better and they are enjoying it more.

A lot of the things we are doing in education is because a teacher thinks it is a good idea. We will implement those things to encourage students to go down that path and that is sometimes hard work.I guess the the tools that I am using such as mobile phones or cell phones, Mp3 Players or MSN. These technologies are things that students use anyway. They already have them they already enjoy them. You don't have to work very hard to encourage students to use them. I can imagine a kid sitting at home and he has got facebook open here or MySpace, or MSN and they are having a conversation about the weekend with some friends and then over here we have the biology discussion board and they are answering questions about biology and it fits in with student's lifestyle. That must be the most significant thing. We are not introducing new tools we are not trying to implementing new things. We are using technology the students already have and already enjoy. We are just giving a valid educational context for those tools to be used. And that makes them very successful.

Angela Shrearer – Microsoft South Africa

How do you see the influence that new technologies have on changes made in schools around the globe?

I think we need to remember that we live in a world where technology is the way we communicate, the way we collaborate in the workplace that it is something we do every day and we need to support these learners that will be working in this world of technology and collaboration. We need to actually be able to support those learners so that they are prepared for this environment. Part of that is not really about the technology it is more about the learning experience that is created in a school and technology is merely used to support this learning process and project based learning working in groups.

How do you see the role of Microsoft in the process of innovating education?

I think that everybody that I have met in Microsoft that works in education is passionate about it and that is probably one of the most important things. Microsoft through this passion and energy is building an infrastructure and resources that is valuable for teachers.

Do you think that this is a good way of promoting new technologies and their role in the education system?

Definitely teachers have commented on the phenomenal experience and the opportunity to talk to teachers from around the world. They have spoken about that in many countries the challenges are very similar and to learn how other teachers around the world are dealing with this has been a rewarding experience for them.