

Teaching with Technology for Institution Leaders

Two Day Workshop: Teacher Education Institution leaders and the use of ICT for Teaching and Learning - held at the School Technology and Innovation Centre in Newtown Johannesburg - October 24 and 25 2011



1. Background and Context

In 2010, the Commonwealth of Learning in partnership with Intel, Microsoft and SchoolNet SA hosted a seminar for Deans of Education from a number of SADC countries entitled, *'Transforming Teacher Education ICT for Teaching and Learning'*. The seminar addressed issues concerning the preparation of student teachers for the changing and technologically enhanced education environment. Later that year, a follow up workshop was hosted by Microsoft and facilitated by Cher Ping Lim from the University of Hong Kong focusing on strategic planning for the University of the Free State (UFS) who had conducted a situational analysis of teaching and learning within the Faculty of Education.

Coincidentally the Commonwealth of Learning (COL) had been working closely with SchoolNet SA to upgrade content and deliver training to potential tutors for the Commonwealth Certificate for Teacher ICT Integration in the Caribbean. At the same time the University of the Free State (UFS) had approached SchoolNet to assist with a curriculum exercise to develop ICT Integration qualifications at NQF levels 6 and 7. Therefore COL, UFS and SchoolNet were able to combine the parallel processes with COL funding the revisions to existing modules and developing some new content and UFS contributing to the development of one of the new modules. Another coincidence was that Microsoft had commissioned Imagine Education in the UK to develop a course called *Teaching with Technology for Institutions Leaders*, based on Cher Ping Lim's research for the pre-service toolkit.

The synergy between each of these initiatives resulted in COL, Microsoft and Intel offering to host a further higher education workshop and UFS being requested to report back on progress made through the implementation of strategies devised at the 2010 workshop.

From a COL, Intel and Microsoft perspective, there was an intention to expose teacher educators to the range of available professional development courses that have been developed over the past few years. COL offered to fund the attendance of UNSA as well as two institutions from outside South Africa; these were Lesotho and Namibia. Intel and Microsoft offered to fund two South African institutions each with a view to these institutions requesting follow up assistance from SchoolNet SA. Microsoft then requested Adrian Blight from Imagine Education to come to South Africa to facilitate this workshop.



Adrian Blight – Imagine Education

2. Delegates

The national Department of Higher Education and Training (DHET) in South Africa had attended the first seminar in 2010. For this workshop in 2011, the DHET requested SchoolNet to ensure that higher education institutions that are currently under resourced would be included. Delegates from the following ten institutions attended the workshop: The University of the Free State, The University of Johannesburg, UNISA, The University of Namibia, and The Namibian Institute for Educator Development, Namibia Polytechnic, Cape Peninsula University, Durban University of Technology, Fort Hare University and Lesotho College of Education.

3. Content of the workshop

The purpose of the workshop was to develop an understanding among teacher education institutions of the role of technology in the lives of teachers and learners, the consequences this has for teacher preparation and the range of existing materials and resources that currently exist to assist with this objective. In the two day programme there were opportunities for delegates to exchange ideas with other institutions but more importantly guidance was offered on how to establish a shared vision within each institution and how to create coherent professional development plans for both staff and students. It is hoped that the workshop has built stronger stakeholder relationships that might help sustain development where needed.

Angela Schaerer from Microsoft introduced the Managing Director of Microsoft South Africa, Mr Mteto Nyathi who opened the workshop by explaining the Microsoft perspective on investing in education. Mteto showed insight into teaching and learning by describing the role of technology as an enabler but one that has the ability to level the playing field.

Trudi van Wyk from the Commonwealth of Learning (COL) then gave an overview of her work in Vancouver and outlined the international situation around educational ICT and

COL's involvement in that field. She presented the current scenario of teacher education institutions having to prepare teachers for a connected world and to progress from being a teacher 1.0 to becoming a teacher 2.0 in order to reach the 2.0 learner.

Progress report from the University of the Free State

Professor Adriana Beylefeld who is the manager responsible for teaching and learning at the University of the Free State gave a presentation on the experiences of the education faculty during 2010 – 2011. This presentation is available on the [PIL Community Teaching with Technology](#). Following the workshop in 2010, UFS had embarked on a staff development drive to encourage ICT skills among the teacher educators who are preparing pre-and in-service teachers. They adopted the Peer Coaching programme that SchoolNet has been running for Microsoft and they also invited 2 teachers from each of the 8 schools that are part of the project being run by the ICT for Innovation in Schools Education unit.

A key feature of the programme is “Paper bag lunches” - these were provided because lecturing staff did not have time to attend lengthy workshops but found that they were able to “Eat and Discuss” during lunchtimes. The conversations featured ICT integration but with the concept of empowering staff by giving them ideas to share with their colleagues in the respective schools. Lecturers wanted to focus on how technology could be used to engage learners and how best to use technology.

Sarietjie Musgrave, Director for ICT Innovation in School Education at UFS explained that a baseline assessment of UFS staff ICT competencies was conducted and from the findings it was clear that staff were quite competent and were aware of possibilities but they were not capitalising on that knowledge by actually making use of technology in their teaching.

Johannes Coetzee also from UFS explained how he was attempting to prepare student teachers for real life situations and was encouraging them to change to what is relevant to learners. He had established a virtual office using the Mxit platform and found he could deal with student queries in two hours between 8 and 10pm; physical contact time had been cut down. Johan was also using mobile learning and a clicker system on student cell phones - so that at any stage in the lesson he could see a graph of what the learners understood at that moment. All courses were presented using Blackboard although the paperless classroom was still in the testing phase because some students still prefer hard copies. He had given a QR code assignment which students seemed to enjoy presenting.

Introduction to the Pre-Service Approach and Toolkit Elements

Adrian Blight then took the reins for the rest of the workshop. He started by asking delegates to introduce each other as a simple but effective ice breaker. The first topic that was explored was innovation, thinking differently, teaching differently. Adrian showed a number of images of teachers and lecturers in their teaching environment and asked delegates to consider whether they were using technology effectively. In each case the

answer was dependent upon the objective of the particular teacher and what they were hoping to achieve.

The focus then changed to 21st Century teaching and learning, how it is interpreted and how technology can assist. Adrian outlined the basics of futures thinking and the ideal classroom of tomorrow with the teacher still at the centre of varied learning experiences. However, the message was clear that teachers have to be aware of the extent of the information access that learners have at their disposal and that teachers must harness the power of technology in how they design learning experiences in their classrooms. Adrian introduced Dimension 1 Vision and Philosophy of the Microsoft Pre-service Toolkit and gave delegates the opportunity to browse around the materials at www.ps-toolkit.com. Institutions were still grouped together and were therefore able to critically use the self-assessment sections of the toolkit. Feedback on the toolkit was largely positive; those delegates who were familiar with the previous toolkit found this more accessible and remarked that they felt eager to return to their institutions to implement this course. Some felt that the most daunting task was the implementation especially the second dimension of Curriculum Assessment and Practice. Delegates discussed the challenges around buy-in and ensuring that the vision that is created is actually shared by all stakeholders at the institution and that people can relate to it. Other challenges were discussed such as blocks on social media and on cell phones and the creativity teachers need to overcome these.

Presentation from a teacher at General Smuts High School in Vereeniging – Chris Gatsi

Chris Gatsi was a previous winner in the innovative teacher awards forum. He outlined his philosophy of using ICTs to make learning more authentic and engaging. He gave a brief description of a range of innovative online tools that he uses as well as insight into how he manages his administration and sharing of resources with learners online. These included Proximity Promoter, Hot Potatoes, Adobe Connect, Skype, Mouse Mischiev, SongSmith, Photo Story, Alice and Scratch, and Windows Live tools. Chris also mentioned an extremely authentic and topical project he had conducted with his learners who drove an anti-bribery campaign in their region of Sebokeng. Delegates were impressed with the perseverance and creativity of this young and dedicated teacher.

Adrian continued by focusing on collaboration as one of the 21st Century skills in practice. The global audience was presented as a driver for collaboration particularly when using YouTube and other Web 2.0 tools that encourage collaboration. Delegates collaborated on an exercise that required them to describe a photograph in 6 words.

This exercise naturally led the discussion to the topic of collaboration and how academics may already be collaborating. It encouraged participants to view how their respective institutions foster collaborative efforts within the faculty and how it should be modelled to the pre-service teachers under their guidance. A collaboration activity ensued and posed the question of whether such efforts were indeed possible, or even being practiced already.

In the reflection, after the exercise, it was collaboratively decided that collaboration is a process that requires commitment from all parties. This commitment would be reflected in the interaction amongst professional peers as well as in the connection with pre-service teachers. Important decisions regarding shared responsibility amongst colleagues, as well as the possible need for physical infrastructure or investing in the skills of human capital within the organisation, would all form part of plotting the way forward in terms of fully integrating technology into the lifeblood of the education faculty.

Day 2 – Strategic Dimension 3 – Professional Learning

Day 2 of the workshop started with a presentation from another Innovative Teacher Awards winner, Linda Bradfield. This time the context was one of a very well-resourced independent school; Linda proceeded to describe technologies that are available to pre-primary learners at her school that might not be available in some of the higher education institutions present at the workshop. Delegates were fascinated by the range of activities undertaken by Linda's primary school learners. They interacted with Linda requesting further explanations around some of the projects she presented.

Adrian introduced the background to the UNESCO ICT Competency Standards for Teachers. It was explained that the framework is currently being reworked and would be available by the end of the year. Some terminology would be changed and the Commonwealth of Learning was developing a content management system that would accommodate existing professional development courses aligned to the framework. Delegates were allocated to one of the 18 modules that comprise the framework and then being asked to team up with other delegates who had the names of modules within their strand. Thus six groups were formed that spanned the three levels (Technology Literacy, Knowledge Deepening and Knowledge Creation) and groups debated the concepts within the framework as they related to their personal experiences with particular reference to the developing vision for their institution. This resulted in some diverse feedback from groups ranging from approaches to effective assessment of students to exploration of strategies to encourage students to participate online or via email when they have little or no internet access. A number of participating institutions cited the main challenge to the integration of ICT at their institutions as being their colleagues and particularly those who are supposed to spear head change when in fact they are the stumbling blocks. Some institutions were witnessing innovation at the lecturing and classroom level but not at faculty level.

Existing Materials for Professional Development

A panel discussion comprising Adrian, Trudi and Gerald Roos constituted the format for this section of the programme. Open Education Resources (OER) were discussed and the pitfalls of selecting the most appropriate materials for ones needs. The difference between information and resources that have educational content was raised as well as finding the most appropriate courses for ones needs, whether it be for in-service or pre-service student teachers. Gerald provided a comprehensive overview of courses that are available at the

Technology Literacy level and Adrian referred to Microsoft's Educator Learning Journeys (ELJ). Gerald pointed out the courses that are based on the context of the teacher and the teachers needs at this technology literacy level and should be distinguished from computer literacy courses that have no (teacher) context. Adrian explained that the ELJs are designed as self-study materials, based on Microsoft applications but the skills are generic and are accompanied by certification.

Online resources for teachers were also discussed that are available from Google educator, SMART, Promethean and iTunes. At the next level on the framework Gerald introduced Intel Teach: Elements courses which comprise *Project Based Approaches*, *Collaboration in The Digital Classroom* and *Assessment in 21st Century Classrooms*. UFS mentioned that they use Intel Teach courses as additional extension courses for students that are not compulsory. Gerald mentioned that SchoolNet had designed the course *One Step Further* to bridge the gap between the Technology Literacy level and the Knowledge Deepening level so that teachers were able to gather information, evaluate it and create elementary learning objects. This stage prepares teachers to then embark on the more pedagogically advanced Intel courses. Gerald outlined the Intel Teach courses, *Thinking with Technology* and *Essentials* as well as the content of the *Commonwealth Certificate for Teacher ICT Integration*. Trudi noted that with all of this rich choice of available material it was only a matter of how to use it effectively that was at issue. She hoped that institutions would take full advantage of the relationships that had been formed and the "warm ware" as opposed to the software or hardware that had been discussed.

Sarietjie then gave a brief overview of the progress they had witnessed and monitored among their various year groups of pre-service students in 2011. She asked the workshop participants to discuss what sort of students they would wish to see leaving their institution. All agreed that there had to be a change and that the time was ripe with opportunities to do the same things but in different ways. Sarietjie showed the video of the monk using a variety of a helpdesk to understand the use of a book. This illustrated how the tools did not matter but rather it was the purpose of the tool that mattered.

Developing a vision for the institution

The final part of the workshop was devoted to delegates developing a vision for their respective institutions. The following statements were gleaned from these plans:

What is the next step?

- Complete the Toolkit survey
- Re-look at vision, mission and goal statements at next faculty meeting to explicitly include ICT
- Invite external facilitators
- Workshops for faculty staff
- Form a support group
- Work with individual lecturers to gain ICT integration

- Establish an ICT committee to:
 - Assess the needs of staff
 - Propose staff development programmes
 - Organise workshops on ICT Integration
- Embed ICT opportunities into the curriculum and assessment
- Put in place mechanisms at faculty level to achieve the integration of ICT and e-learning
- Capitalise on the resources provided at this workshop for capacity building through professional development interventions
- Add technology integration for curriculum development and teacher training to the IT policy
- Use the information and materials provided at the workshop to implement staff development in the use of ICT to improve practice.

What help do we need?

- External facilitator
- Joint funding with sponsors
- Experts to come and do training for teaching and learning
- Individual implementation support
- Financial support for training
- Find out if technology integration is part of the novice teacher/mentor teacher programme
- Intensive training in the use of the tools
- Support from staff and management within our institution
- All courses to be offered as a blended learning approach as from 2012

Who can help with what?

- Microsoft Intel SchoolNet and COL – and peer educators at other higher ed institutions
- Microsoft Intel and COL materials
- Links to the websites mentioned in the workshop
- Careful look at the CDs provided in the workshop
- Peer Coaching
- UFS and Namibia Polytechnic can help
- COL Intel SchoolNet Microsoft and Imagine Education can provide in the identified areas

Conclusions and recommendations

The engagement and interaction of delegates throughout the two days revealed a serious need for considerable work to be conducted among education faculties in Southern African teacher education institutions.

It can be seen from the planning for a future vision for institutions as outlined in the previous section of this report as well as in the evaluation that follows, that institutions are aware of the issues at stake. They are clearly determined to address them but not all well-equipped or sure as to how to do so. There was a need for this workshop to be conducted for the majority of these institutions and there exists a further need for follow up actions.

All institutions were requested to submit more detailed plans requests for assistance to Janet@schoolnet.org.za and to do so before November 15th if they wished to receive assistance from the partners, COL, Microsoft and Intel.

For further collaboration and to share existing or new resources, a Face book page was created called [Southern African Pre-service Community](#). A community was established on the PIL network called [Teaching with Technology](#) and the twitter hash tag used throughout the workshop was #preservice. All stakeholders are encouraged to comment or participate.

The University offered their facilities as a venue should there be plans for further workshops. It was suggested that interested individuals could participate in webinars organised at intervals for example once per term as one of the ways of remaining in touch with the current issues as well as maintaining good partnerships.

We look forward to hearing of progress made by individual institutions in the coming months.

Evaluation of the workshop

Venue: Microsoft School Technology and Innovation Centre Newtown Johannesburg

Date of workshop: 24 – 25 October 2011

COLLATED RESPONSES

		Yes	No	
1	I found the workshop to be a worthwhile use of my time	19	0	
2	I am aware of the processes in place at my institution for curriculum change to be implemented	16	2	
3	I had very little background in educational ICT before this workshop	3	15	
4	I found the workshop appropriate and relevant	19	0	
5	Currently ICT plays a most significant role at my institution	8	11	
6	Student teachers leave my institution with an understanding of how ICT can enhance their pedagogical practices	5	8	Both =6
8	I learnt new perspectives on the innovative use of technologies at this workshop	19	0	
9	The workshop helped me envisage a new role for ICT in my institution	18	1	
10	The workshop was well paced	19	0	
11	I felt that I contributed to ideas for planning at other institutions during the workshop	13	6	
12	I was aware of global developments in the field of ICT integration before the workshop	9	10	
13	The workshop has prompted me to review curriculum content at my institution	18	1	
14	I was aware of the range of professional development courses and programmes available for teacher ICT integration before this workshop	9	10	

15	As a result of this workshop I have a better understanding of the curriculum change I wish to implement at my institution	19	0	
16	I will be able to influence curriculum content and teaching methodology at my institution	18	1	
17	I anticipate my colleagues at my institution will be supportive of curriculum change	10	5	Undecided = 4
18	My institution has the ICT resources to effectively integrate ICT in the curriculum	14	5	
19	My institution would benefit from this workshop being conducted on site	19	0	
20	I would recommend this workshop to other teacher education institutions	19	0	

General comments:

- *"Thanks I have gained a lot – the Presenters/ Facilitators were excellent role models"*
- *"It was a great exposure – very thoughtful to invite people relevant candidates for further action"*
- *"Fantastic, a new world unfolded and opened itself to me. I am a renewed teacher educator. A million thanks – gratitude and sincere appreciate to all the sponsors"*
- *"A follow up workshop of this nature should be conducted so that members institutions (those present here today) can give progress reports. Ideally it will be good if the workshop comes after 6 months from now."*
- *"We need strong/close links to COL/SchoolNet for continuous improvement and teaching and learning regarding how to integrate ICT in instruction."*
- *"Thanks for a well organised workshop. I'm curious re plans for follow up sessions."*
- *"Has assisted in giving me ideas for how to integrate ICT into the curriculum"*

Janet Thomson, 10 November 2011 www.schoolnet.org.za