A Report on an Information & Communication Technology (ICT) and Information Literacy (IL) training initiative at Kgoro Primary School (Zithobeni district) in Bronkhorstspruit

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By the **Department of Informatics** and the **Department of Information Science**, **University of Pretoria and UNESCO**

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1 Introduction

This report reflects on how a UNESCO funded ICT Literacy and Information Literacy (IL) training initiative for teachers in a developing community unfolded based on a training need expressed by a small group of teachers in a developing South African (SA) community. The initiative followed on an initial literature survey, a study of the UNESCO Draft Media and Information Literacy (MIL) Curriculum and prior experience by Kirstin Krauss in information communication technology (ICT) training in developing communities (see Krauss et al., 2009 and Krauss, 2009b). A search on three SA databases available through Sabinet (http://www.sabinet.co.za) namely SACat, SAePublication and ISAP for the words "teacher/teachers" and "rural" appearing in the title retrieved only a few references. This pointed to a dire need to deepen the understanding of combined MIL and ICT training initiatives for teachers in the developing contexts of SA – an issue to be addressed by the project covered in this report.

During the course of the initiative an initial literature survey was supplemented by an in-depth study of the literature on teachers and information literacy, their use of the Internet, Internet training for teachers, and how this can be aligned with theories from ICT for Development (ICT4D) literature (Krauss & Fourie 2010). Furthermore, participant observation was used to do fieldwork, with focus group interviews towards the end of the training to confirm themes that emerged from fieldwork and to add rigour and reliability to data treatment and results. Since these still need to be analysed and fully interpreted in further research papers only a few of the preliminary issues and observations that portray the success of the project and issues to be addressed in future will be reported on.

This report covers the following:

- Background to the teacher training project
- Workplan and timelines for ICT & IL training at Kgoro School
- Basic Applied Computer Literacy course
- Information Literacy for Teachers course
- Lessons learnt from community engagement at Tugela Ferry (June/July 2009) relevant to the report
- Principles for facilitating the training artefact
- Recommendations for future work
- Conclusion

Reference will be made to the assessment of the draft UNESCO MIL Curriculum and the UNESCO ICT Competency Standards for Teachers (ICT-CST) policy framework when appropriate.

The teacher training project primarily acknowledges the scope of Module 9, **Information and Library Skills** and to a lesser degree Module 11, **Pedagogical approaches for Media and IL** discussed as part of a draft in meetings held in South Africa in November 2009. Due to time constraints and purpose, we pursued a more restricted focus on the use of a specific technology, namely the Internet, and the development of hands-on practical skills, contextualized in the theoretical framework of IL as set out in the proposed UNESCO MIL modules, and the wider, published literature in the field. In addition, we collected research data on how to improve contextualisation of the course for developing communities, to enhance sustainability and to motivate local ownership of skills gained and interest in promoting information literacy and Internet access in schools and local communities.

2   Background to the teacher training project

2.1   Initiation of the project

The engagement between the University of Pretoria and Kgoro Primary School in the Zithobeni community started late in 2008 through a friendship relationship between one of the Department of Informatics' staff members and Mrs Phoofolo, the headmistress of the school. As a result of this contact and knowledge about the school and community, the Department of Informatics subsequently donated ten computers to the teachers of the school. During this engagement and as a result of a number of follow-up visits to the school where relationships were strengthened and ideas communicated, the teacher community expressed the need for skills to effectively use the computers donated to them. This can also be described as the community entry phase – an important issue contributing to the success of the project.

Learning from prior community engagement initiatives and having collaborated with UNESCO in an ICT training project in 2009 (see Krauss et al., 2009; Krauss, 2009b), Kirstin Krauss and Prof Ina Fourie approached UNESCO for funding and participation. In reaction to an expression of needs by the school and aligning with UNESCO's request to test their draft MIL curriculum for teachers, a project proposal was formulated. In November 2009 the draft curriculum for teachers was discussed in meetings with various stakeholders in Southern Africa (Prof Ina Fourie was involved in this process).

In preparation for the proposal an initial literature survey on information literacy training for teachers and key information literacy standards and guidelines was conducted in order to align the draft curriculum according to the perceived needs and circumstances of the teachers. Although the curriculum and the standards on which it builds are certainly relevant for teachers in training (i.e. students), the perception was that the training of teachers who are already in practice, with limited time and opportunity, and situated in developing and rural areas might offer additional challenges and issues of relevance that need to be addressed. As will be confirmed in a later section, this perception was confirmed. In a later section it will also be explained how the content and teaching style was adapted to meet with the needs and the expectations of the teachers as experienced working adults (*albeit not experienced in the use of ICT and Internet searching*).

In February 2010, UNESCO agreed to offer a grant. Two training courses for teachers were designed and registered through Continuing Education at UP (www.ceatup.co.za) and a detailed work plan was prepared. Although the training builds on UNESCO's draft MIL curriculum the content and scope of especially the course on IL was adapted to focus mostly on Internet searching, in the wider contexts of available sources.

2.2   A community of teachers trained

May 2010 marked the start of a partnership between two departments from the School of Information Technology (Department of Informatics and Department of Information Science) and UNESCO that involved a fifty-hour intensive teacher IL training program over ten Saturdays. Forty-three teachers from the Zithobeni community were trained, firstly, in Basic ICT literacy and then in IL. Initially only teachers from Kgoro Primary School were selected for the training, but later in response to the headmistress, Mrs Phoofolo's suggestions, some of the other schools in the community were also invited to attend the training. However, the bulk of the course participants came from Kgoro School.

Kgoro Primary School is situated in the Zithobeni township approximately 70 kilometres from Pretoria, SA. The school has an enrolment of 1215 pupils, 27 teachers, and 8 administrative staff. The Zithobeni community are disadvantaged in terms of social and economic life. Most people stay in informal settlements and are mostly unemployed, making it difficult for parents to pay school fees. There is a high level of illiteracy within the community which makes it difficult for parents to engage themselves in economic and academic matters of their children. The school has programs on HIV/AIDS and holds regular awareness activities. They try to make their learners and communities aware of the plight of this epidemic. The school is challenged by the high rate of learners who are orphans. At the time of writing there were 41 orphans at the school.

The above is similar to reports on the socio-cultural conditions faced by teachers in rural contexts in SA by Mokgalabone (1999), Chikoko (2008) on developing teachers for rural education in KwaZulu-Natal, SA and an article by an anonymous author on young rural teachers being most at risk for HIV infection (Anonomous, 2005).

2.3 Perceived advantages and barriers acknowledged in the planning phase

Against the educational context sketched in Section 2.2, the teacher training at Zithobeni was initiated bearing the potential advantages of ICT and Internet skills for teachers in a rural community in mind, and also acknowledging the challenges and barriers they may face. Perceived advantages of such a project include access to vast resources of information they can tailor to their circumstances, enhancing the quality of teaching, and learning from international expertise. A number of challenges and barriers were, however, foreseen based on a previous ICT training collaboration between UNESCO and the Department of Informatics in Tugela Ferry reported on by Krauss et al. (2009) and Krauss (2009b). This prior training project especially sensitised us to the difficulties and realities of ICT training initiatives in rural communities and the supporting community engagement practices and therefore assisted in preparing for this initiative.

3 Courses

Considering the potential advantages and barriers as well as arguments for IL to build on ICT skills, two courses were suggested:

- *The Basic Applied Computer Literacy Course* addressing computer skills as a requirement for information literacy, and

- *Information Literacy for Teachers.*

The rationale for building the IL training on ICT skills is supported by Idiodi (2005), Usluel (2007) and Hinclliffe (2003:7) who argue that "…the impact of technology on the conceptualization of information is two-fold: technology serves as a catalyst for developing a rationale for the importance of the concept and as a mechanism for focusing attention on specific issues within the broader concept of information literacy".

4 Reinforcement from the subject literature

In planning the research project and the two courses, the existing literature concerning various relevant facets had to be noted. This review of literature is presented in a paper by Krauss and Fourie (2010) and will not again be part of this report. However what needs to be noted from Krauss and Fourie (2010) is that their in-depth literature survey showed that there are very few explicit guidelines on planning for IL for teachers in developing communities considering their specific contexts and ensuring sustainability. Neither is there a strong theoretical base or methodological depth. The emphasis is mostly on issues such as accessing attitudes, barriers and self-efficacy and practical applications. Critical reflection on the needs of rural areas and developing countries feature very scantly. As a result Krauss and Fourie (2010) visualise the theoretical planning of IL training initiatives in developing situations in the eclectic model in Figure 1.
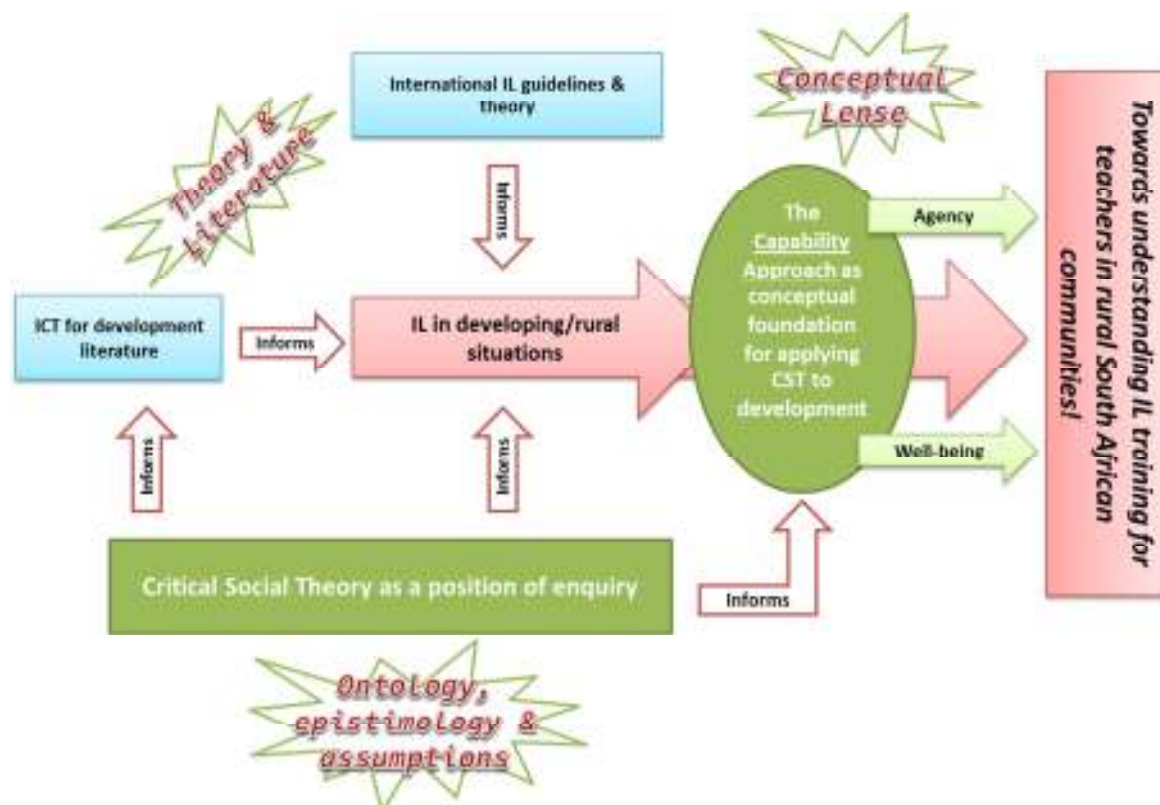

Figure 1: Eclectic model to understanding IL for teachers in rural communities (from Krauss & Fourie, 2010)

The above figure visualises that in order to understand IL for teachers in developing contexts in SA, theory should be drawn from both ICT4D literature and international IL guidelines and theory. Following this project and further attempts for both training and data collection the model might eventually be further enhanced; also with support from the literature from other disciplines that still needs to be identified.

In Figure 1, Critical Social Theory (CST) is accepted as a position of enquiry that informs both the way in which literature is scrutinised and how the realities of developing contexts may be understood. In addition, the Capability Approach (CA) is put forward as a conceptual lens that will enable us and hopefully other researchers to apply a critical approach to IL in developing situations. Due to the gap in the literature of IL and ICT4D as pointed out by Krauss and Fourie (2010) and Fourie and Krauss

(2010, in press) there seems a need to explore these issues through further training, research initiatives and systematic literature reviews.

In addition to CST as position of enquiry and the CA as critical lens, Krauss and Fourie (2010) suggest that the concepts of "well-being" and "agency" specifically need to be highlighted as they enable researchers and practitioners to understand and scrutinise the interrelatedness of these two constructs as they manifest in the caring nature of the teaching profession in developing contexts. The caring nature of teaching is projected in the involvement of the teachers with HIV/AIDS orphans for example (noted in Section 2.2), and is also noted by De Vos et al. (2007).

Figure 1 also suggests a number of themes to illustrate the expected value and results of combining IL theory and ICT4D literature with the CA as a critical lens. These themes include issues related to sustainability, empowerment, understanding the local realities, needs, perceptions and context and ultimately what constitute capabilities and freedom according to local view of reality." (Krauss & Fourie, 2010). Although participant observation followed by focus group interviews towards the end of the training were used to gain insight on these as well as other themes that emerged, these still need to be analysed and fully interpreted and will be reported in a research article.

Building onto the literature review in Krauss and Fourie (2010), this report continues by reflecting on how the teacher training project evolved in the Zithobeni community. The following two sections briefly report on the workplan and the starting objectives of two courses that were planned for the teachers of Zithobeni, i.e. Basic Applied Computer Literacy and Information Literacy for Teachers.

5   Workplan and Timelines for ICT & IL Training at Kgoro School

Dates	Activity	Roles and responsibilities
11 March 2010	Visit to Mrs Phoofolo, the headmistress at Kgoro School, to discuss training and logistical arrangements.	Kirstin Krauss (KK), Dawit Asmelash (DA), Patricia Lutu (PL)
28 April 2010	Final list of course participants from Zithobeni	KK
30 April 2010	Final workplan to UNESCO	KK & Ina Fourie (IF)
30 April 2010	Submission of request for ethical clearance for the research project	IF
15 May 2010	On the first day of the training, we explained the nature and purpose of the engagement with UNESCO to the teachers from the Zithobeni community	KK, DA & IF
15, 22, 29 May & 12 June 2010	Basic ICT literacy course takes place	KK, DA and students[1]

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[1] During each session, students from the Joint Community Project (JCP) at the University of Pretoria assisted with the teacher training

17, 24, 31 July & 7 Aug 2010	IL training takes place	IF, KK and students
7 August 2010	Data collection for the research project through focus group discussions and brief questionnaires. All participants signed an informed consent form.	IF & KK
27 September	Presentation of SYLIS conference paper, Pretoria (available as a PowerPoint Presentation) (Fourie & Krauss, 2010)	IF
27 October 2010	Certification ceremony at Kgoro School. Handing over of copies of IL book *(Information society survival toolkit*. Bothma, T. (coordinating author), Cosijn, E., Fourie, I. & Penzhorn, C. 2006. Harlow: Pearson Custom Publishing) donated by Prof Theo Bothma (Chair of the School of Information Technology, UP).	KK, DA and students
3-5 November 2010	Presentation of paper for the IDIA2010 conference (full-text available; Krauss & Fourie, 2010)	KK
13 November 2010	Final contact session, presentation skills and culmination of ICT and IL literacy skills	KK & IF and students
15 November 2010	Financial reporting to UNESCO and Final press release	KK & IF
30 November 2010	Narrative reporting to UNESCO	KK & IF

Table 1: Workplan and timelines

6 The Basic Applied Computer Literacy course

The *Basic Applied Computer Literacy Course* mainly attempted to introduce teachers to the basics of computing. It was planned as a 25 hour training course where we focused on the training of teachers in using the popular Microsoft Office suite, because it is the office automation application of choice by the school and proposed by the Department of Education through the Gauteng Online project (www.gautengonline.gov.za). The course was, therefore, relevant in the workplace. Although this was an instructor led course, every teacher used a computer individually and in group context. Our key strategy was to motivate and inspire teachers to focus on how computing can have a positive and significant impact on the way they carry out their particular work, teaching and administrative tasks.

The course content focused primarily on the basic concepts of computing (using Microsoft Windows XP) and productivity applications software (Microsoft Word and Microsoft Excel). Based on UNESCO's ICT competency standards for teachers policy framework (UNESCO, 2008), the overarching objectives of the course were to 1) describe and demonstrate the use of common hardware technologies, 2) describe and demonstrate the basic tasks and uses of word processors, such as text entry, editing text, formatting text, and printing, 3) use record keeping software to take

attendance, submit grades, and maintain student records, 4) use presentation software and digital resources to support instruction and 5) describe and demonstrate the purpose and basic features of presentation software.

To achieve more specific and secondary training objectives, the applied computer literacy course was planned based on lessons learnt from the previous UNESCO funded ICT training at Tugela Ferry (see Krauss et al., 2009; Krauss, 2009b) as well as considering the following two aspects. Firstly, through our collaborative analysis of needs (see Section 2.1), we tried to establish the level of knowledge and education the course participants have (for appropriate knowledge transfer) and secondly, to attain the continuous use of the knowledge (to conduct knowledge deepening) (UNESCO, 2008), we tried to elicit the job descriptions and functions of the teachers in their school work and community. Based on the findings, the team formulated the learning materials and assessment. Our rational was that in any tailored computer literacy program for rural communities, a needs assessment and requirements analysis should be an essential part of the pre-planning process contributing to a positive outcome (Krauss et al., 2009; Krauss, 2009b).

The two training programmes needed a theoretical framework to guide its successful introduction to the teaching community. In Figure 2 from Krauss (2009b) the basic principles of implementing the ICT4D artefact (in this case ICT training) in developing situations are visualised. In following this approach and using lessons learnt from the previous community project, the course content was determined before the course started, while delivery and engagement evolved as we interacted with the teachers on how to positively deliver basic computer literacy skills to meet with their needs, expectations and levels of experience.

Study topic	Software / Application	ICT-CST policy implementation objectives
Basic concepts of computing	Microsoft Windows XP	**I.D.1.** Describe and demonstrate the use of common hardware technologies.
Productivity applications software	Microsoft Word and Microsoft Excel	**I.D.2.** Describe and demonstrate the basic tasks and uses of word processors, such as text entry, editing text, formatting text, and printing. **I.D.10.** Use networked record keeping software to take attendance, submit grades, and maintain student records.
A web browser and communications software	Introduction to Email and Internet	**I.D.5.** Describe the Internet and the World Wide Web, elaborate on their uses, and describe how a browser works and use a URL to access a website. **I.D.6.** Use a search engine to do a keyword Boolean search. **I.D.7.** Create an email account and use it for a sustained series of email correspondence.
Presentation software	Introduction to Microsoft PowerPoint	**I.C.3.** Use presentation software and digital resources to support instruction. **I.D.3.** Describe and demonstrate the purpose and basic features of presentation software ….

Table 2: Study objectives from the ICT-CST policy framework

The purpose of the course was to prepare the teachers for the IL course that followed and to help them to be more effective in using office applications to support their work life. We hoped that this would also filter through to their everyday life, and interacting with school children, parents and the community at large, thus addressing both personal well-being and agency according to the CA

explained in Krauss and Fourie (2010) (see also Section 4 in this report). The course, therefore, applied a combination of "depth tact" and "role tact" teaching strategies according to UNESCO's ICT-CST policy framework (p 8 of the Implementation guidelines, UNESCO, 2008). According to the ICT-CST modules suggested by UNESCO, teachers must know basic hardware and software operations, as well as productivity applications software, a web browser, communications software and presentation software. The training might have also touched on other aspects of the ICT-CST policy framework. Table 2 shows the study objectives proposed by the UNESCO ICT-CST policy framework. The practical implementation of these study objectives in the course will be discussed in Sections 9 and 10.

6.1   Principles for the classroom

In this section we will briefly illustrate how the ICT-CST teaching objectives were addressed in the Basic ICT literacy course. Principles for Basic ICT literacy have been discussed at a practical level in Krauss et al. (2009) in Section 4, and hence, we build onto those in this training project. The basic assumption in the beginning of the course is that students know absolutely nothing about the computer. Therefore, we started slowly by introducing the keyboard, mouse and Windows desktop. In the beginning we observed that it is especially important to follow motivational approaches so that novice students may gain some confidence for overcoming their initial fears of technology. We started by using simple metaphors to help the teachers relate new knowledge with existing knowledge. We also started with very simple exercises in MS Word and MS Excel (see for example Appendix C), since it allowed students to gain confidence with the keyboard and the mouse before too many new functionalities overwhelm their learning processes. As students start to develop a sense of achievement (see Sections 8 & 9), we develop and add new concepts to their learning using the Spiral Approach for teaching basic computing principles (see Krauss, et al., 2009). The Spiral Approach basically implies that at the start of the training, simple concepts are introduced to students. Then, in follow-up exercises and training, new concepts iteratively and progressively build onto previously learnt concepts but in more complexity. For example, in the first exercise, simple inserting of tables is introduced. In follow-up exercises advanced aspects of table formatting and use are then progressively introduced in more complexity and detail. The process of building new knowledge unto existing knowledge continues iteratively until understanding is complete – hence the spiral idea of knowledge building.

Revisions at the end of the course also support the idea of building on and confirming previously learned concepts. The spiral approach implies the repetition of concepts and building onto previously required understanding. The spiral approach also implies that you need to gauge existing knowledge levels of course participants and that you develop your training by using metaphors and examples that refer to familiar concepts, hence you progressively move from known to unknown or new concepts.

The principles of people orientatedness and group activities explained earlier were central to our teaching. We, therefore, attempted a joint focus on both technology content and motivational aspects. Following this approach and creating a sense of intrinsic motivation may prove much more conducive to sustainable and ongoing learning (or life-long learning) than trying to cover all aspects of the software applications in a task orientated or step-by-step manner.

During the final assessments of MS Word and MS Excel (Appendices A & B) most of the basic concepts of the software packages were addressed. In MS Word, teachers have learnt about:

- formatting text,
- alignment,
- inserting symbols,
- headings,
- bullets and numbering,
- watermarks,
- formatting paragraphs,
- page borders,
- headers and footers,
- using and formatting tables,
- inserting pictures and clipart,
- page layout, and
- saving and retrieving documents.

In MS Excel teachers have learnt about:

- cell and table formatting,
- using currency and decimals,
- doing basic calculations,
- using functions such as sum() and average(),
- text formatting,
- merging cells,
- creating and formatting graphs,
- basic navigation such as copying, pasting, etc. and
- saving and retrieving spread sheets.

Ultimately, we endeavoured to give teachers both ICT knowledge and motivation for ongoing and life-long learning. We aimed to create a culture where ICT skills are institutionalised in their personal and work life, addressing both well-being and agency needs of teachers as caregivers.

MS PowerPoint skills were addressed on the last day of the training. Teachers were required to develop specific lessons and lesson plans in groups using Internet IL skills to establish course content and MS PowerPoint to demonstrate their lesson plans. Basic presentation skills were discussed, such as building an argument, using an introduction, body and conclusion when doing a presentation, the use of proper referencing, basic layout of slides, usability and readability of slides and so forth. Teachers were also alerted to the fact that a PowerPoint slide show should support communication objectives or learning activities, rather than allowing technology to dominate a presentation or distort communication in a techno-centric manner. By the time the last session was conducted, teachers seemed to have acquired ICT and IL skills to such a degree, that it (at least when working in a group) has become tacit knowledge and in a way embedded in their activities. We could, therefore, focus our class discussions on the purpose of technology for learning and developing knowledge rather than grappling with how to do things with technology.

6.2   Course Assessment Structure

At the end of the Basic Applied Computer Literacy course, each teacher wrote a two hour computer-based exam which tested ability to apply the complete course content. The exam consisted of two parts, namely an MS Word exam and an MS Excel exam. After the first round of exams most of the teachers failed the exam. As a result we gave the teachers an opportunity for a supplementary exam. This second round of assessments, proved much more successful as teachers seemed to have gained a sense of how the exam would take place and how knowledge would be tested. In the second round only six of the 43 teachers failed the exam.

The final mark was calculated as the average of the MS Word and MS Excel exam results. Participants had to get an overall average of at least 50% for a final mark to get a certificate. A certificate with distinction was awarded if the participant had an overall mark greater than 75%. If the participant did not score above 50%, a certificate of attendance was awarded. All students had to attend all training sessions in order to be successful. Appendices A and B have the two exams we gave to the teachers for the Basic Applied Computer Literacy Course.

Presentation skills were assessed after the IL training course in group work activities where teachers were required to use IL skills and MS PowerPoint to develop and present lesson plans on a topic of their choice (See Figures 2 & 3). This final opportunity was a culmination of the ICT and IL training that started in May 2010.

Figures 2 & 3: Teachers presenting lesson plans

7   The Information Literacy for Teachers course

The IL course builds on the UNESCO draft Media and Information Literacy (MIL) curriculum, a preliminary review of the literature on teachers and information literacy and a selection of existing textbooks on teaching IL (e.g. Cox, 2008; Eisenberg, Lowe & Spitzer, 2004; Grassian & Kaplowitz, 2009; Torras & Saetre, 2009), and a selection of IL models (see Table 3). Although the UNESCO draft Media and Information Literacy (MIL) curriculum served as a very valuable guideline in terms of the scope of content and objectives, it is much more comprehensive than the content that could be

covered in the limited timeframe. As stated in the grant proposal the focus was therefore only on the Internet as an important tool to find and access information and to hone information skills.

Big6	http://www.big6.com/
ALA guidelines in various contexts	http://www.ala.org/ala/mgrps/divs/aasl/aaslproftools/informationpower/informationpower.cfm
SCONUL pillars of IL	http://www.sconul.ac.uk/groups/information_literacy/seven_pillars.html
Association of College and Research Libraries (ACRL)	http://www.ala.org/ala/mgrps/divs/acrl/standards/informationliteracycompetency.cfm
IFLA guidelines on IL and life-long learning	http://www.ifla.org/en/publications/guidelines-on-information-literacy-for-lifelong-learning

Table 3: Examples of existing guidelines and standards that may influence the design of IL training programmes for teachers

In preparation of the course, as well as at the time of the presentations, the theoretical frameworks reported in Section 4 as well as the approaches and experiences portrayed in Sections 8 and 9 were acknowledged and where possible adhered to. With this being a first opportunity to present IL skills to teachers in a developing community according to the principles of ICT4D, the feeling is that although the course were successfully presented and although teachers mastered the expected skills there is still much to be learned regarding teaching information skills to teachers as adults who are working full-time and come with considerable experience in their fields and respect from their communities as well as the issues from CST and the CA (related to ICT4D) mentioned in Section 4. Some of these will be addressed in a research article that will attempt to theorise the experiences and feedback from teachers collected through focus group interviews and participant observation as mentioned in the introduction of the report. Even so more need to be done to maximise on the value of the UNESCO IL curriculum when used in (1) developing communities with strong cultural backgrounds, and (2) working adults with expertise and authority in their own right, e.g. in adapting the style of presentation and allowing for stronger facilitation of participant input.

Considering the limited timeframe of the teachers who were working full-time, the focus of the IL course was on Internet search skills within the wider context of available information sources. The use of websites, search engines and other search tools, as well as social networking tools were contextualized against the need to also consider print-based and other resources, and to use the best available sources for specific situations. It was also assumed that a course on the use of information and the Internet should not only enable teachers to make effective use of the Internet to find information related to their teaching tasks, but should also allow them to see the full potential of information available on the Internet for dealing with non-teaching tasks faced in their daily work environment such as offering support to children affected by HIV/AIDS, sharing information on HIV/AIDS, and social issues such as environmental protection or dealing with xenophobia. When invited to suggest topics for searches, one of the teachers mentioned that she read a poem on xenophobia and would like to have the words. She eventually found it on the Internet.

Throughout the training the teachers were also sensitised to critical media literacy and the need to help students and their parents to become media-literate as stressed in the UNESCO curriculum.

During a group session on evaluating websites it was noted that the teachers were quite critical of content and very willing to discuss statements on websites. Although most did not have experience in using the Internet, the overall impression was that they are fully aware of the dangers of information on the Internet and the care that must be taken before using such information. The additional care that must be taken before recommending websites to school children and parents was also frequently stressed. Much more is, however, covered in the UNESCO MIL curriculum that needs to be addressed in this regard.

The course addressed issues such as recognizing an information need, translating an information need into search terms and search strategies, effective use of search tools such as Google (a popular search engine), as well as raising awareness of a selection of other useful search tools e.g. searching for images and videos. Exercises, examples, and assessment were contextualized in the daily tasks of teachers as well as the context they face. The content, learning experiences and assessment were, aligned to the context of the participants, and in alliance with lessons learned from earlier ICT projects and the course on *Basic Applied Computer Literacy Course*.

For the first meeting detailed slides and exercises were prepared based on assumptions of the approach to take and the teachers' subject interests. Although the slides covered all issues of importance, the participants explained that they would prefer to work online and gain practical experience rather than listen to a presentation of the issues to consider such as analysis of concepts, Boolean operators, truncation, etc. From the second meeting on the focus was to start with the practical work and then to take them back to the more theoretical issues they need to know. For each sub-sequent meeting the slides were prepared in the week before the preceding meeting to accommodate their suggestions and interest for topics. The hand-outs (PowerPoint slides, useful web addresses) were given as something they can take home for revision and future use. The content of these also featured in the final assessment (see Appendix D).
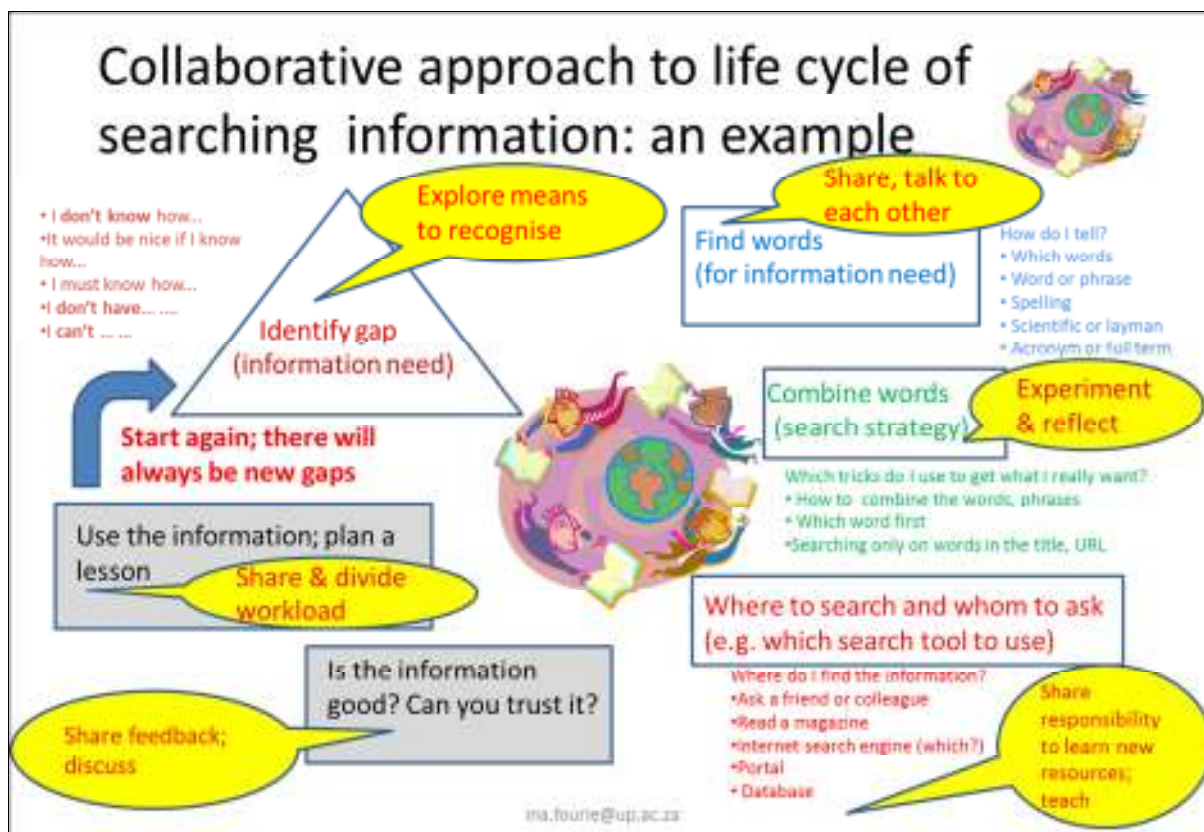
Figure 4: Information seeking cycle – slide presented to teachers

The following reflects the planned scope of the course and the issues that could not be addressed fully due to time constraints. Such issues were, however, brought to the teachers' attention:

- Information seeking cycle – an example (covering all facets of IL and the responsible use of the Internet, as well as phases typical in information seeking, emotions and thoughts to be expected). In the last meeting the tailored model of the information seeking cycle was adapted to show how they might collaborate and hone their new skills (see Figure 4).
- Internet content (i.e. the information landscape) suitable for primary teachers and their learners (e.g. websites with learning content, reference works, dictionaries, databases).
- Search tools e.g. Google, a meta search engine such as Mamma, search tools specialising in specific types of content e.g. images and multimedia. Although Browsys (a website to access a wide variety of search tools were demonstrated in addition to a few search tools for images and meta search engines), the teachers focused mostly on using Google and its various advanced features.
- Identifying and analysing information needs and understanding the complexities of information needs.
- Formulating information queries based on information needs and using available search features.
- Evaluating search results (e.g. websites, web pages), criteria, considering different levels of use, etc.
- Refining search queries and search strategies.
- Keeping record of favourite websites (e.g. bookmarks, favourites).

- Responsible use of information (including referencing of information sources, avoiding plagiarism, using plagiarism detecting tools).
- Teaching support available on the Internet e.g. free software for mind maps, quizzes, etc. Guidelines on safe use of the Internet for children (e.g. safety measures, protection, search engines for children).

The following components of the proposed scope were mentioned but could not be dealt with due to time constraints:

- Dealing with information in different formats (e.g. HTML, pdf), downloading and storing information. This aspect was mentioned, but could not be explored in further detail.
- Organisation and preservation of information for future use.
- Creating and sharing information with others (e.g. wiki's, blogs, social bookmarks).
- Dealing with viruses, backups of bookmarks, etc.

Not all course objectives as planned were therefore reached. Similarly to the objectives of the Basic ICT Literacy course presented in Table 2, Table 4 presents the objectives of the IL training course.

Objective	Unpacking objective
To enable participants to recognise and define information needs and to link such information needs to problems that need to be resolved.	Participants need to understand that information is important in the workplace context and where/how it can be used. Information needs are not static – they are changing and evolving all the time, and often there is need for more than one episode of seeking information.
To enable participants to successfully and effectively (i.e. saving time and effort) use the Internet to locate quality, reliable information relevant to their context, and to recognise the importance of using the Internet in addition to other types of information resources.	It is important for participants to have knowledge of where information can be found e.g. the variety of Internet search tools, the difference between search tools, and how the functionalities offered by search tools may help them to locate information. They also need to note search tools specialising in images, multimedia, etc. Participants need to recognise the strengths and limitations of each tool and the information resources they cover. They also need to note databases dedicated to education such as ERIC.
To enable participants to successfully and effectively (i.e. saving time and effort) retrieve information using a selection of appropriate Internet search tools.	Participants need to understand the search strategies and search techniques that can be used to improve the quality of search results, and how these are supported by various search tools. *Although they were introduced to other search tools, the teachers still focus very strongly on Google; more time and practice would be necessary to change their habits*.
To enable participants to appropriately evaluate information as relevant to their contexts.	Participants must be able to apply appropriate criteria to the evaluation of Internet resources and they need to realise the importance of considering the suitability of resources for different levels of the people who will be using information (e.g.

	teachers, children, parents). The need for the verification of information from different resources also will be stressed. Participants also need to realise the importance of evaluation in dealing with information overload.
To enable participants to appropriately store information for future use.	Once information from the Internet has been retrieved it must be restored for future use. Different means can be used e.g. bookmarks (or favourites), managing bookmarks, social bookmarking and sharing information, storing PDF articles. There is also software that can be used for personal databases. Participants should be able to bookmark websites, share bookmarks, download and save information and also know how to use social bookmark sites. In addition they should take note of software for personal databases. *The teachers were introduced to keeping record of favourite websites through bookmarks and favourites. The other issues of personal information management could, however, due to time constraints not be addressed.*
To enable participants to appropriately retrieve information from their own resources for organising and storing information for future use.	Participants should know how to find information again once stored in their own systems e.g. using desktop searching. *Due to time constraints not addressed.*
To enable participants to appropriately and effectively use information in a responsible and ethical manner.	Participants must understand the importance of the responsible and ethical use of information e.g. avoiding plagiarism, noting software that can be used to detect plagiarism, and using appropriate reference techniques and reference software if available.
To enable participants to appropriately and effectively apply information.	Participants should be able to create Word documents and Excel documents (covered in the Module on ICT Literacy). They should also be aware of the options for collaborative work e.g. the use of Google Documents for the development of lesson plans, means to share innovative teaching practices, and means of collaboration and sharing information in a teaching context.
To enable participants to appropriately and effectively communicate knowledge.	Participants should note means of sharing information e.g. using scholarly blogs, scholarly wiki's, email to share websites and web pages, using Google groups, Facebook, etc. *These were mentioned, but could not be covered in detail.*

Table 4: Course objectives addressed and achieved

8 Lessons learnt from community engagement at Tugela Ferry (June/July 2009) related to the report

Lessons from the Tugela Ferry project are reported in Krauss (2009a), Krauss (2009b), Krauss et al. (2009), Krauss and Turpin (2010) and Krauss (2010). In the following paragraphs we will highlight some of the key lessons from the Tugela Ferry project and how we attempted to apply it in the Kgoro School project. As indicated in Krauss and Fourie (2010) and in Section 2, Figure 1, lessons and insights from ICT4D literature may be used to guide the introduction of IL training for teachers in developing situations. Therefore, we relate to some of the key aspects of introducing the ICT4D artefact to developing communities in Figure 5 (next page) from Krauss (2009b). The issues we related to are briefly covered.

According to Krauss (2009b), the model shows how the ICT4D artefact (such as policy implementation or training) can take place in deep rural communities in SA. Although the model addresses a number of things specifically related to UNESCO's ICT-CST policy framework, the following are relevant to this project (including the course on information literacy):

- the need for appropriate community entry in ICT4D implementation,
- the need to do a needs analysis,
- the need to examine each individual ICT4D context and situation,
- the need for ownership to be nurtured and inspired,
- the need for culturally sensitive implementation,
- the need to view ICTs explicitly as a supporting tool rather than as an end in itself, and
- the importance of collaborating with cultural interpreters, community visionaries and community leaders.
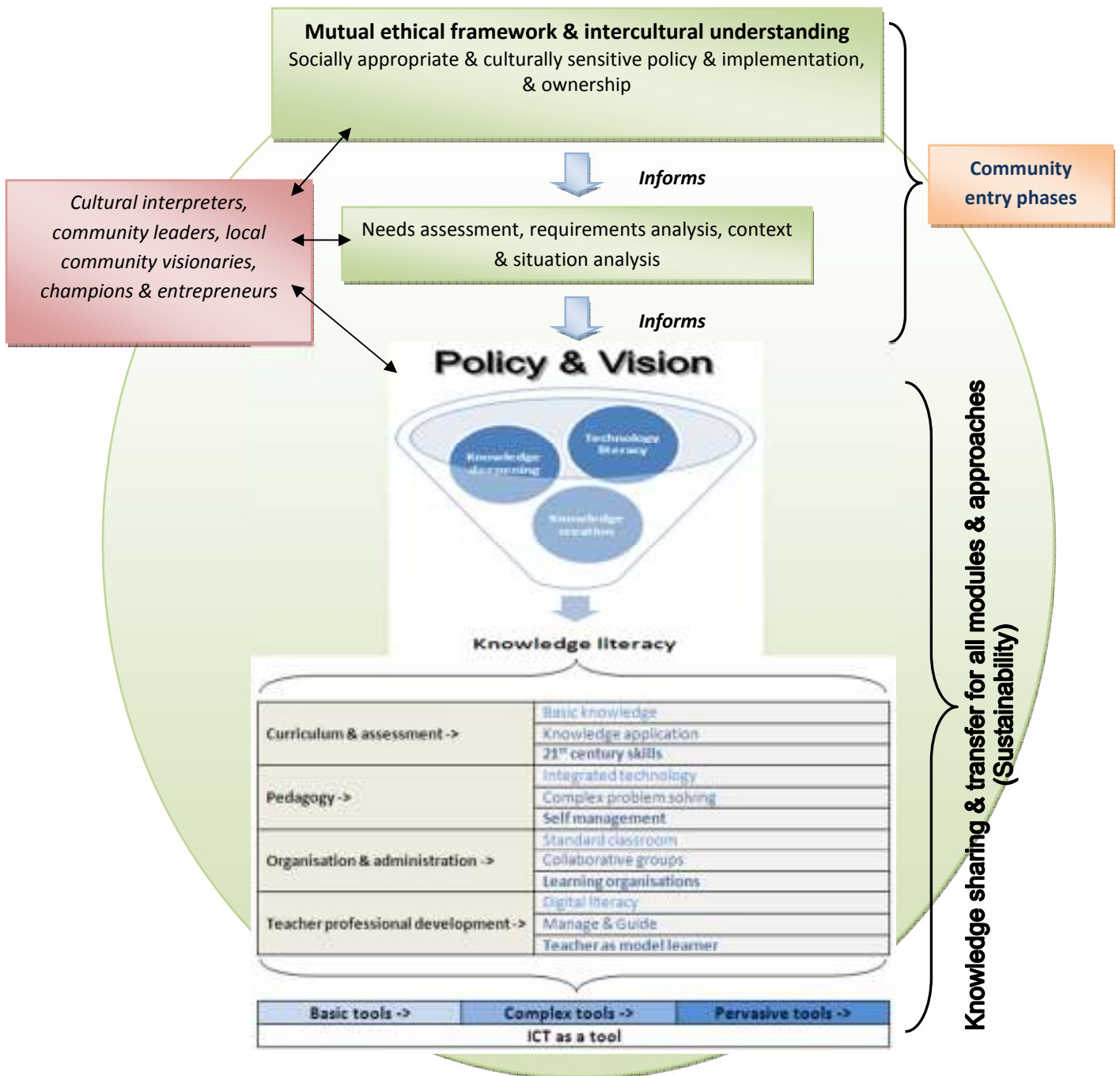
Figure 5: "ICT competency guidelines for knowledge literacy for teachers": an adapted, integrated and interrelated approach to ICT policy implementation for teachers (Krauss, 2009b).

Krauss (2010) and Krauss and Turpin (2010) deal in more detail with a number of values for community engagement in Tugela Ferry. These were considered as basis or departing values for this project:

- the importance of collaborating with cultural interpreters and community gatekeepers as project partners;
- issues of community entry and waiting for a development idea to mature in a community before implementation;

- the need to establish a balance between a task orientatedness and people orientatedness when engaging with a community;
- the importance of introducing an idea and then to allow community leaders and gatekeepers to guide us (the researcher/trainers) with regard to approach, implementation, timing, needs and content;
- creating and stimulating ownership and vision and incorporating the expertise and advice of key community members;
- allowing key community members to guide us in understanding and deciphering meaning (Sometimes outsiders are oblivious of perceptions, attitudes and values and one need to empower someone through openness and trust to educate the outsider on how to introduce the ICT4D or IL4D artefact);
- the importance of not letting ourselves (as researchers and trainers) be bound by social rules or implementation guidelines during engagement and to allow for innovation to occur and therefore possible deviation from original intentions;
- the importance of trust, openness and friendships to develop from the project;
- allowing for the guidance of community leaders and allowing them to empower the researcher / trainer as outsider in the implementation of the project; and
- ultimately, the need for a people orientated value system to guide training and community engagement.

As shown in the last point, most of the above values and principles tend to highlight people orientatedness in the implementation of an ICT4D artefact. This means that in developing communities, a sense of communion should be key to training approaches, such as allowing and desiring for everyone in the group to achieve in the true spirit of Ubuntu. Ubuntuness is best described by Archbishop Desmond Tutu as follows:

> "A person with Ubuntu is open and available to others, affirming of others, does not feel threatened that others are able and good, for he or she has a proper self-assurance that comes from knowing that he or she belongs to a greater whole and is diminished when others are humiliated or diminished, when others are tortured or oppressed." (Tutu, 1999 cited in Cohen & Battersby, 2009).

Applying Ubuntu in training implies that achievement should be seen both as acquiring the appropriate ICT or IL knowledge and creating a sense of communion, respect and people orientatedness. This may mean for example that "we want everyone to be successful", "we do not want anyone to fall behind", "we should move the same pace as the slowest member in the group" and "we connected with the course facilitators because there is a sense of trust and openness and therefore learning and achievement is easy". In facilitating a course in such a context, one should, therefore, render adequate time and opportunity for participants to master course content, even if it means additional time and effort not planned for. It implies an "extra mile" approach to introducing the training artefact. In addition, ubuntuness seems to be a measure of success and respect in developing communities in SA. This value system should be respected.

The principles and values highlighted above were applied as departing values or community engagement principles for the teacher training project. Although these community engagement principles are interrelated in many ways, they can be grouped roughly into two categories, namely;

1) principles for community entry and community engagement and 2) principles for facilitating ICT literacy and IL in the classroom and learning situation. The first type of principle would typically affect issues such as creating ownership and trust, acceptance of the training artefact and introducing the training idea to community members. The second type of principle is relevant to the classroom training situation, such as how to introduce ICT concepts, motivational aspects in the classroom and how to facilitate the training situation. Community entry and engagement have been discussed in much detail in reports on the Tugela Ferry project (Krauss, 2009a; Krauss, 2009b) and will therefore not be revisited in this report. In the following section we, however, elaborate on some of these interrelated and overlapping principles that assisted us with this project.

9 Our approach and experiences in facilitating the training artefact

This section builds onto the principles presented in Section 8 and reflects on approaches and experiences with the two training courses that affect maximum benefit for the teachers, sustainability and life-long learning. For purposes of discussion, principles for training will be considered here as whole.

As indicated earlier, the engagement with Kgoro School started late in 2008 and therefore, we had an opportunity to build a relationship with Kgoro School and specifically with Mrs Phoofolo long before the training started in May 2010. Based on an expression of needs and a request from the school to help with ICT skills, we tried to respond with something that would be really valuable and tailored to their needs. This implied that we had to consider things such as the very important guidance of Mrs Phoofolo as the leader in this project on how and when training should take place and also how it could be aligned with the overarching goals of the school and the Department of Education (DoE). Mrs Phoofolo was key in this endeavour as she, continuously, engaged with her teachers and the DoE to ensure that they are aware of the training and involvement of the University of Pretoria with the school and that the project was acknowledged by key stakeholders.

We believe that Mrs Phoofolo's position as headmistress and key "insider" project champion was a key success factor in this project. As insider project driver, for example, she indicated that doing the training during her very busy schedule was difficult for her and that, at times, she considered to not attend some of the Saturday classes. She, however, realised that she had to be there because she noted that "the teachers are watching her [me]". She also played a key role in the implementation and ongoing use of the ICT skills because, even during the training, she insisted that teachers should start using the skills for their work. She was also the gatekeeper to the teacher community through whom we communicated training arrangements and who invited teachers from other schools in Zithobeni to attend the courses.

It thus was reinforced (see experiences noted for Tugela Ferry in Krauss, 2009a and Krauss, 2009b) that community entry, building of relationships and trust are key to projects such as this and consequently our focus on these continued to develop and deepen throughout the duration of the project. For example, during and after each training session, we would talk to Mrs Phoofolo and other teachers about their experiences and perspectives on the training and the way we do things. Since we requested honest advice from them on our training approaches and pace, we in a sense allowed and empowered them to guide us. This seemed to be very successful as we could continue with the confidence that the teachers understood us, that we were moving at a pace that they were

comfortable with and that they were considered as training partners. We had to acknowledge that course participants were teachers with intricate and valuable experience in teaching themselves. We could, therefore, not consider them as non-experts in the project as their guidance were invaluable. This aligns with theories on adult learning, also referred to as Andragogy (Knowles et al., 2004).

Appropriate community entry and following collaborative approaches created a sense of ownership among the teachers which positively affected course attendance and commitment from their side. During training sessions we also endeavoured to follow a personalised approach to training. For example, during training sessions, we would go to each group and teacher to assess their levels of progress and to inspire them in a personalised way to master the course content. Learning from previous experiences in the Tugela Ferry project, we realised that the teachers in this community might have never used a computer before and training might, therefore, involve pre-basic aspects such as how to use the mouse or learning how to use the keyboard. From the Tugela Ferry project we learned that sometimes course participants are scared that they might "break the computers" or that they might "disappoint the teachers". We, therefore, approached training activities, keeping the possibility of such fears and perceptions in mind. We also continuously complimented successes and achievements of individuals so as to create a positive motivation for ICT and IL. We encouraged teachers to tinker and play with the technology as a method of learning new things. We also relied heavily on the support of students from the Department of Informatics to assist us with a personalised approach to the training so that none of the teachers ever had to wait (long) for support when they needed it. Students from the Department of Informatics assisted us in gauging the level of success and achievement during the training – they were our "eyes and hands" at grassroots level.

Group activities were key to the success of the training and mastery of course content. We observed teachers to naturally operate in groups and therefore we encouraged it. We also tried to ensure that each group has a member who has some background or experience in computers. Some teachers had absolutely no background in ICT while others have done courses such as the International Computer Driving Licence (ICDL). We therefore used these combinations of skills to empower teachers for peer learning. We encouraged teachers to take responsibility for each other, i.e. when they master a specific concept or topic, they had to make sure that their colleagues also succeed. If they struggle with something they must engage with the group to assist them. This group-centred approach to training had a three-fold purpose. Firstly, it created a culture of peer learning which would ensure ongoing sustainability and ongoing development of ICT and IL skills after completion of the training project; secondly, "stronger" students could explain and verbalise difficult ICT concepts in a way more understandable, more context related and more culturally appropriate than what we as course facilitators could do – hence we maximised on the expertise already in the teacher community, and thirdly, it encouraged a caring and people orientatedness in training.

The fact that we engaged with a single teacher community added value to the training approaches. Teachers already knew each other, they had an existing working and trust relationship with each other and they could all adhere to an established community leader that could guide us as outsiders to appropriately align and adapt the training artefact.

Encouraging and maximising on a culture of "ubuntuness" among teachers proved to be a big motivator for mastery of course content. Towards the end of the training Mrs Phoofolo told us that

"even teachers that didn't attend the training are benefiting, because they learn from each other". She also told us that even while the training was still underway teachers were starting to use the skills to "type their own exam papers". Because of Mrs Phoofolo's key involvement and being a key driver of this project, she allowed the ICT and IL skills to now be institutionalised at Kgoro School as she for example insisted that all teachers should do their own marks and type their own exam papers. Because of the motivational aspects incorporated in the training and because of the sense of ownership and achievement among teachers, they are very keen to use the skills in their work and personal life.

Although we aspired to take the lead of Mrs Phoofolo in the training this did not necessarily mean that we collaborated with her in establishing course content or that she prescribed it, but rather that we respected her as the "community leader" and the driver of the project from the point of view of the teachers. As a result of this approach and because of her awareness of the need for ICT skills, we collaborated with her with regard to administrative issues and communication with the teacher community she represented. She also played an important role in guiding us in adjusting teaching pace and difficulty of learning new concepts. Apart from Mrs Phoofolo guiding us and we continuously gauging our approaches and empowering her to express her concerns and advice, by asking for advice and listening to her as the agent of development in the community, we also constantly interacted with student assistants that worked with us on training pace and levels of difficulty. These student assistants were especially helpful since they got involved at grassroots level with the teachers and sometimes more directly observed the difficulties of learning of teachers. They also spoke the same language as the teachers and often acted as cultural interpreters. The training situation therefore, was often an ongoing buzz of activities, group work and discussions (i.e. course facilitators interacting with teachers and assistants, assistants interacting with teachers, teachers interacting with each other and the facilitators interacting with each other).

10 Recommendations

As is clear from the preceding sections, the courses from our point of view are considered a success since we achieved what we set out to do. We also learned much that we would like to present as recommendations:

- The subject literature should be further scrutinised in line with the model presented in Figure 1, and findings should be used to stimulate research on teaching ICT and IL skills in developing contexts to people from the caring professions. Other disciplines / sub-disciplines that seem to hold potential include Information Behaviour (related to IL) and Andragogy (Adult Learning).
- The suggestions on an ICT4D approach need to be further investigated and aligned with the teaching of not only ICT, but also IL.
- The UNESCO MIL curriculum holds much potential for teachers in training (i.e. students) in terms of scope and content and we can offer no criticism in this regard. It, however, also needs to be re-packaged into smaller sections that can be presented to professionals who are working fulltime. The comments on teaching style, etc. from an ICT4D and adult learner perspective discussed in preceding sections might also be useful in this regard. Ensuring ICT and media literate entrants to the teaching profession is very important, but it might do well to also support those who are already in the profession. In addition it might be worthwhile to explore the principle of sharing and Ubuntu in the training of students to better prepare them to

contribute to sustainability of the skills and life-long learning once they have entered the profession.

A limitation of the project is that we did not specifically and explicitly evaluate the requirements and policy of the SA National Department of Education. Apart from Mrs Phoofolo being in communication with the Department of Education regarding the project and our involvement and talking with us about the relevance of course content, we cannot with confidence reflect on how the project aligned with national requirements. However, we advise that it is a very important area to consider in future work. One could, for example, combine the guidelines presented in Figure 1 and Figure 5 to come up with principles for future and similar engagement.

11 Conclusion

As clearly stated from the preceding sections, the teachers greatly benefited from the two courses. The team also benefitted in numerous ways learning form the teachers and having to re-think their styles, preferences and approaches. Apart from the courses, data were collected through focus group interviews and participant observation. These still need to be fully analysed. Two conference papers (Fourie & Krauss, 2010; Krauss & Fourie, 2010) were delivered reporting on various issues, UNESCO's support and the UNESCO MIL curriculum as point of departure. In addition an article was accepted in for publication in a South African journal, *Innovation*, and another for *Journal of Information Systems and Information Technology.*

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13 Appendix A – MS Word Exam

14 Appendix B – MS Excel Exam

Class List

Subject: Mathematics

		Surname	Test1	Test2	Test3	TermAverage	Exam	Final
	1	MULLER	23	65	90	59	50	55
	2	PITALLO	23	34	50	36	40	38
	3	LAW	40	60	30	43	60	52
	4	FARR	70	50	40	53	60	57
	5	PARK	80	60	57	66	80	73
	6	MTSHALI	65	50	33	49	40	45
							ClassAverage:	53
							Highest Mark:	73
							Lowest Mark:	38

Instructions:

1) Recreate this Spreadsheet and graph
2) Use a function to do the following calculations:
   2.1) **TermAverage** is the average of **Test1, Test2** and **Test3**
   2.2) **Final** is the average of **TermAverage** and **Exam**
3) Calculate the **ClassAverage, Highest Mark** and **Lowest Mark** for **Final**

15 Appendix C – Starting exercises for MS Word and MS Excel

Lobethal Independent School
PO Box 397
Tugela Ferry
3010
Sunday, 05 July 2009

Dear Mrs Khumalo

Application for promotion

During the school holidays, I attended the Basic Computer Literacy course presented by the University of Pretoria.
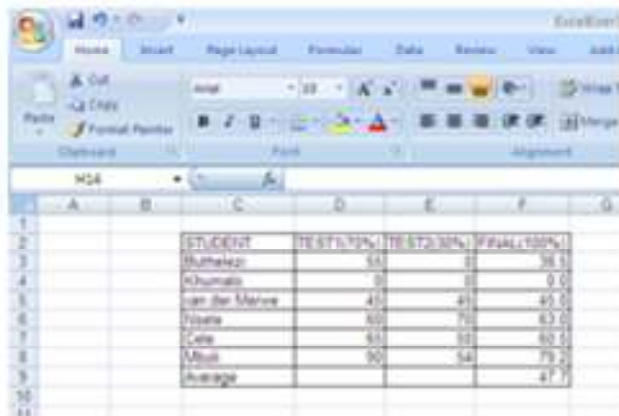
What I learned from the course:

Write two paragraphs about your experience ...

I attach my final results for your perusal.

Yours truly,

Kirstin Krauss

Exercise 1:
Write this letter in MSWord.

Exercise 2:
Create this table in MSExcel.

16 Appendix D – Information Literacy Assessment

TEACHERS, INFORMATION LITERACY & THE INTERNET
Prof Ina Fourie
Department of Information Science, University of Pretoria
ina.fourie@up.ac.za   Tel (012) 420-5216

Assessment   14 August 2010

Name: _____   ID number: _____

1 Using the Browser (i.e. Explorer) icons/buttons, and pull-down menus.   [5 marks]
Write down the number from column B with the correct icon/button or pull-down menu for each statement.

Column A	Number	Column B
		1. Going back to the previous webpage / website you visited (i.e. the webpage you viewed before the one you are currently viewing; you visited the website of the University of Pretoria, then you visited the website of the Department of Education, and now you want to go back to the website of the University of Pretoria).
Edit; Find on this page (from pull-down menu)		2. You want to keep a record of the website / webpage so that you can easily find it again next time.
		3. The Department of Education is the website you visit most often. You have indicated it as your "home page" in the internet option setup on the computer on which you are working. You want to go to this "home page" without typing the web address (i.e. the URL).
		4. You get the feeling that the information on the web page is not very up to date, and you wish to ensure that you are viewing their latest information.
Favourites; add to favourites (from pull-down menu)		5. You want to search for information on the webpage.

2 Revising your knowledge of the terminology: internet, World Wide Web, browser, websites   [7 marks]
Write down the number from column B with the correct explanation, example or association for the term in column A.

Column A	Number	Column B
Internet		1 Unique address of a web page or website
URL		2 Hypertext Transfer Protocol
World Wide Web		3 First page of a website
Hyperlink		4 Hypertext Markup Language
Http		5 Link to web pages and websites
Home page		6 Global network of interconnected networks
HTML		7 Consists of websites and web pages

3 (a) Revising the Boolean operators (AND, OR, NOT) to combine words when searching for information.
Write down the correct Boolean operator against each statement. Apart from refreshing your memory about the use of Boolean operators, this exercise should also help you to gain a better understanding of the implications of using the different Boolean operators. There are three operators: AND, OR, NOT.   [5 marks]

Statement	Boolean operator
a) Boolean operator that is often used to combine synonyms to ensure that you find all information that may be useful (e.g. education, training, teaching, instruction)	
b) Boolean operator that specifies that both terms that are combined by the operator must appear on the website / web page (e.g. lesson plan, geography)	
c) Boolean operator that is used to specify all the terms that must appear on the website / web page to ensure that you find exactly what you are looking for, and do not need to go through unnecessary information (e.g. lesson plan, geography, grade 7, maps)	
d) This operator is used to exclude information, that is, if there is something on which you really do not want information, and if it often appears in combination with the other term(s) on which you do want information e.g. scuba diving and Maldives (You have been to the Maldives many times and want to try something new!!)	
e) If you combine too many terms with this Boolean operator, you may be too specific and find no information e.g. looking for a date that is male, tall, dark, handsome, rich, polite, good sense of humour, very patient, villa in Italy, island in my Largo, can speak Turkish – perhaps you will get something, but the chances are slim.	

3 (b) Complete the table to indicate if the following web pages (according to their brief descriptions) will be retrieved under the circumstances specified: [4 marks]

Page	Brief description
1	Technical Review of Plagiarism Detection Software Report ... File Format: PDF/Adobe Acrobat - Quick View ... Cited by 22 - Related articles. There are a range of publicly available plagiarism detection software and ..... that uses a cloze procedure technique) ...
2	Turnitin - #1 Plagiarism Checker to Ensure Academic Integrity ... Turnitin is the leading academic plagiarism detector, utilized by teachers and students to avoid plagiarism and ensure academic integrity. Create account - WriteCheck - How to Buy ...

Condition	The following applies to the web page		Meets with criteria: Yes* or No	Page
Plagiarism AND software	Contains information on plagiarism	Contains information on software		1
Plagiarism AND schools	Contains information on plagiarism	Does not include the word "schools"		1

* Yes means that it will appear in the result list. We also refer to this as the results that are retrieved.

4. Evaluation of information and websites (4 marks)

Consider the following search results and indicate which you would use for information on the following topic (motivate your choice): reliable information that is available for free on how children can make friends. (You want to recommend the information to children.)

Description from search result	Yes	No
Amazon.com: How Kids Make Friends: Secrets for Making Lots of ... ☆ How Kids Make Friends is unique because it not only speaks to children ... when it promises kids will "make all the friends they want" and that kids can ... www.amazon.com › Books › Children's Books - Cached - Similar		
Motivation:		
How To Teach Children How to Make Friends	eHow.com ☆ How To Teach Children How to Make Friends. Parents, teachers and other role models can help children develop their social skills and make friends. www.ehow.com/how_5519652_teach-children-make-friends.html - Cached		
Motivation:		

5. Search exercises (10 marks)

Find information on the following issues and write down the answers. Each question counts 2 marks. You need to use Google: http://www.google.co.za

Web address of the South African Department of Education	
The meaning of Thutong (a portal available through the Department of Education website)	
Web address of the Gauteng Department of Education	
Email address for support for MindMeister software for mind maps	
Address of a Wimpy in Bronkhorstspruit	

Total:

16 marks	

TEACHERS, INFORMATION LITERACY & THE INTERNET
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Assessment   14 August 2010

Group number	

Names of group members	ID's of group members	Signature to declare that you contributed to the group effort

Each group is assigned a topic.

		Specialisation
Group 1	Mathematics	
Group 2	Geography	
Group 3	Biology	
Group 4	History	
Group 5	Life skills	
Group 6	Information technology	
Group 7	English	
Group 8		
Group 9		
Group 10		

You need to search for information and recommend websites for the following (these will be shared with all participants).

Exercise	Web address of recommended websites	Motivation
Syllabus		
Assessment		
Videos, graphs, pictures, images – any form of visual aids		
Keeping in touch with developments in Education		
Any non-school related issue of importance to teachers or school children		