Empowering teachers & learners through ICT Integration
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Creating learning communities of teachers and learners using ICT’s

SchoolNet SA has a reputation for providing course materials of substance and training that is tailor made for teachers and education managers. Through its specialised training SchoolNet endeavours to enrich teaching practices which transform learning. SchoolNet promotes innovation through educational projects such as Microsoft Partners in Learning Innovative Education Forum and Nokia’s Mobile Mathematics for learners that uses the MXit mobile Platform.

SchoolNet SA works together with provincial departments of education as partners in planning and implementing basic computer literacy for teachers as well as more advanced teacher ICT integration programmes.

Why ICT Integration?

The e-Education White Paper emphasizes ICT integration as the preferred mode of ICT use in schools. Through ICT integration, learners are helped to master 21st Century learning skills including thinking, communicating, collaborating, problem-solving, information skills and to be self-directed.

Current SchoolNet SA Initiatives:
- Intel® Teach
- Microsoft® Partners in Learning
- Sizanani ICT Adult Literacy
- Nokia Mobile Maths
- Encyclopaedia Britannica
- Adobe Youth Voices
- Commonwealth Certificate Teacher ICT Integration
- British Council IT hubs
- Vodacom Foundation
SchoolNet SA History

SchoolNet SA was established as a national organisation due to the efforts of volunteer educators and innovative thinkers in school networking during the 1990s.

SchoolNet SA was formally founded in 1997 with the support of the Department of Education’s Centre for Educational Technology and Distance Education and several corporate sponsors.

The first projects included training teachers in the Telkom 1000 project, an Open Society Institute for South Africa project and the World Bank’s Links for Development. SchoolNet SA operated as a core funded project of the Canadian IDRC (International Research and Development Centre) until 2001 when it became a Section 21 nonprofit organisation.

SchoolNet SA played a role in influencing decisions and content in the e-Education White Paper and the Teacher Development Framework.

Tens of thousands of teachers have been trained through SchoolNet’s endeavours since its inception in 1997.
“We are using computers to learn not learning to use computers”

What SchoolNet believes in:

- Addressing the interests of educators and learners
- Skills development courses and events that will be meaningful to educators and learners in the classroom
- Developing capacity in educators to sustain better teaching, learning and school management
- Lesson improvement skills
- Finding appropriate ways to use ICT as a resource to enhance learning
- Helping teachers find innovative ways to make learners take responsibility for their own learning

SchoolNet strives to:

- Influence decision-making in the interests of a better education for all
- Support teachers to integrate ICT in imaginative ways
- Provide quality courseware for teacher professional development in ICT integration
- Be the thought leaders for ICTs in school education
- Empower and support departmental officials, educators and learners in the effective use of ICTs
- Maintain excellence in training and project management
- Develop strong support and liaison with schools and provincial education structures
- Increase numbers of effectively-trained teachers integrating ICT
SchoolNet has always been involved in cutting edge projects and pilot initiatives that use innovative technologies to enhance learning as well as improve education in general.

- **Mobile phone technology**: SchoolNet is the country training and support partner for Nokia’s Mobile Maths project which targets Maths learners and teachers. This is one of the many projects using the locally developed MXiT mobile platform and using Moodle as a learning management tool. It is significant that learners engage in the highest levels of usage when outside the classroom.

- **Game-based and Gesture-based learning**: SchoolNet has managed a project to evaluate the impact of Xbox 360 Kinect gaming on English language skills of Foundation Phase (Grades 1, 2 and 3) second language learners at a rural primary school in KwaZulu-Natal. Microsoft commissioned SchoolNet to develop training materials for teachers to develop language supportive teaching strategies for second language English learners using new technologies. SchoolNet is seeking funders who are passionate to further explore this opportunity to revolutionise the early years of learning.

- **Hand-held mobile learning**: The eThekwini Municipality in KwaZulu-Natal is providing learners with an Android hand-held tablet device containing a broad range of educational software and digital books. The potential impact on learning is great when this interactive technology is directly used by learners and facilitated by teachers. The cost of this device has been driven down by local investment in research and development with plans for local manufacture.

- **Tablets and Classmates**: SchoolNet is commissioned by Intel to conduct training for teachers in their World Ahead 1:1 Transforming Learning Program that is intended to accompany Classmate tablet PC’s. The training includes promotion of 21st century learning, e.g. creativity, collaboration, critical thinking, being self-directed, information literate, etc. SchoolNet training with the Classmate PC programme includes a rich source of content and teacher development materials.

- **SchoolNet has a partnership with Sangari South Africa** to provide training to teachers who use the Mobiview tablet technology with the Sangari iBox. These devices allow learners to be engaged hands-on and to lead the learning process far more effectively than for example with the use of interactive white boards alone.

- **Encyclopaedia Britannica** content is available with the iBox as well as through other avenues; it is available offline, is credible and is not only valuable for directly increasing learner literacy but it can also address some of the shortcomings in teacher content knowledge. SchoolNet has designed a course for teachers to make effective use of this highly regarded content.

SchoolNet firmly believes that technology in the hands of competent and motivated teachers, who have received effective training on how to integrate ICTs into teaching, can support our mission to effectively improve teaching and learning.
Microsoft’s Partners in Learning programme is a worldwide initiative in which Microsoft engages with Ministries of Education to assist with the needs of educators in that country. In South Africa, Microsoft is using SchoolNet SA to develop and deliver a whole range of teacher ICT skills and integration professional development programmes. More than 30 000 educators from all provinces of South Africa have received training since January 2005. As from 2012 programmes will be introduced which focus on learners using technology.

Microsoft funds capacity-building in provinces and provides training to provincial personnel in all programmes. The entry level course, ICT Skills for Teachers has proved to be particularly effective due to its unique learning approach to ICT literacy adopted by the SchoolNet SA team and its trainers.

Partners who have either funded training or adopted aspects of this programme include: Intel, Telkom Foundation, Nelson Mandela Foundation, Oprah Winfrey Foundation/Cisco, Angloplat, Lonmin, NEPAD, ISETT SETA, MTN, Multichoice, Thutong, Vodacom Foundation, SITA, WITS University, Provincial and the national Departments of Education.

What Microsoft offers teachers and learners:

- A range of carefully planned courses that promote 21st Century Learning among students
- Specifically designed to address all educational ICT concerns of learners, teachers, district officials and technical support personnel
- School-based training where possible
- Support for teachers implementing innovative projects that enhance learning
This introductory ICT skills course provides scenario-based skills training to teachers with limited computer experience at the same time as catering for experienced users. This course focuses on supporting teachers’ roles by catering to their needs and interests, emphasizing the development of independent learning with ICT. Participants’ different levels of confidence and ICT experience are acknowledged which allows for each participant to work on ICT-based scenarios that best suit his/her skill level, thus making this course suitable for staff development in all schools.

This course usually includes 5 days of training which is split into 2 sessions approximately one month apart. Each training session accommodates one teacher per available computer and Microsoft certificates of participation are provided to participants who complete the course. A similar course, ICT Skills for Principals, provide school principals with ICT skills training in a range of scenarios related to their work as principals.

This is the ideal introductory course as it offers scenarios that include a wide range of skill levels and applications.
The WebQuest course introduces teachers to a simple template for implementing ICT-integrated projects in the classroom. WebQuests are learner-centred and inquiry-based; they promote higher order thinking skills and challenge learners to participate in real world issues. Learners adopt different perspectives to these issues which forces them to work in teams and think critically. The course is designed to help teachers understand the nature of the WebQuest, find examples online, evaluate them, analyse them and adapt them for their own use. Students learn to take control of their own WebQuests in which they are forced to collaborate and engage analytically with the content.

There are thirty two localised samples and thirty additional examples of WebQuest projects provided in the course materials for teachers with limited connectivity and of course thousands of examples available online. This course is usually conducted over 3 days. Participant teachers are required to bring their own subject resources with them to develop projects that they will use in their lessons.
Comments from participants

• "I found the course extremely useful in terms of learning new skills on a computer and able to use the WebQuests to assign projects and incorporate this with other learning areas."

• "WebQuest is a powerful teaching tool. This is something that should have been made known sooner. Definitely a tool that every teacher should equip themselves with!"

• "This course was excellent as it allowed for hands on participation. I feel confident that I can easily design WebQuests for my subject."

• "WebQuest is a powerful tool that can be used to introduce our learners to a new and exciting way of teaching and learning. WebQuest is very suitable for the new curriculum and in line with the current changes in education with respect to new technology introduced into our schools today."

• "Although I initially felt that the timing of the training (during the holidays, right after exhausting last days of school) was not appropriate, I thoroughly enjoyed the presentation of the workshop and I am empowered to develop my own WebQuests."
Peer Coaching

Peer coaches are trained in communication skills, ICT integration and lesson improvement skills. The training model is designed to grow many peer coaches per school. This course aims to develop a spirit of collaborative peer-to-peer staff support, a critical component of whole school staff development. Peer coaches provide ongoing peer support to maintain teachers’ motivation and confidence in their integration of ICTs. Through the Peer Coaching approach schools are able to sustain higher levels of ICT integration amongst large numbers of educators rather than investing in just one “ICT champion”. This is a specialised course that requires participants nominated by their schools to be ICT-literate and to have access to the Internet.

Schools commit to the programme for several years. Each year the course consists of eight days of face to face training spread over a year with several online activities that are completed in between sessions. A school can nominate up to 3 coaches per cycle. After a few years schools have a large number of peer coaches.

The course activities for the training are centred on the 3 pillars of peer coaching which are:

- Lesson design
- Coaching skills
- ICT integration
"My lesson design has improved as I now endeavour to make my lessons meaningful to the learners and made this the focus and not the marks. I have also become more aware of ICT and how it can enhance my lesson planning and presentation and have begun to implement it. I no longer isolate myself, but rather make myself available to assist and to collaborate more with others."

"I am now able to conduct my lessons so that they are interesting to learners; use different ways and methods of teaching and include skills such as listening, thinking, decision making and coaching into lessons."

"I feel very proud to support my collaborating teacher. Sharing the knowledge I have gained through the course has proved that I can make a difference towards the improvement of teaching and learning."

"Computers were lying idle in the safe room. Nobody guessed that there could be such fun and happiness when a computer is used in the classroom especially in the teaching of Mathematics. The first time I took a computer and a projector to teach transformations, learners from other classes who do not even do Maths came in large numbers to watch and confessed that if technology was introduced before they chose Maths Literacy they would rather have chosen Mathematics."
Partners in Learning Innovative Education Forum

The Microsoft Partners in Learning Innovative Education Forum aims to recognise innovative teachers who are using ICT in engaging ways to promote teaching and learning. The forum is aimed at teachers who are using technology to enhance learning activities through project based approaches. The Forum rewards creative and dynamic teachers with great prizes at annual awards events and provides them with an opportunity to share their ideas with like-minded teachers.

Innovation Workshops

To help teachers come up with innovative teaching ideas and to hone their projects a series of Innovation Workshops are organised prior to the awards. The Innovation courseware is also available online at www.schoolnet.org.za/PILP/innovation_2011 to enable teachers to review the materials on their own or in small groups. All teachers can attend a Microsoft Partners in Learning Innovation Workshop. To find out where the closest workshop is please contact SchoolNet on 011 403 5777 or email info@schoolnet.org.za

Teachers can join the online Innovation Course which is designed to offer support to teachers who want to enter the Forum. It will include webinars with previous Forum winners and will also provide guidance for completing entry. New content and webinars are added every week and webinars are recorded. This means that it is not necessary to join the course at the beginning or to watch every webinar live to benefit. To see the courseware or to sign up visit: http://partnersinlearningforum-sa.wikispaces.com

For more information about the Innovative Teachers Forum Awards and details of the current competition’s entry requirements and closing date, please visit www.schoolnet.org.za/itf
Microsoft Partners in Learning Innovative Education Forum Awards

The Microsoft Partners in Learning Innovative Education Forum Awards is an annual event administered by SchoolNet SA on behalf of Microsoft. It recognises teachers who are teaching in a way that is new or ground breaking at their schools, while integrating ICT; teachers are rewarded for using technology effectively to enhancing learning in the classroom.

At the Microsoft Partners in Learning Forum Awards, teachers are recognized in the following categories:

**Extending Learning Beyond the Classroom** – where teachers have taken learning beyond the classroom walls for the greater benefit of the larger community.

**Collaboration** – where learners have worked together to create a common product or achieve a common goal.

**Knowledge-building and Critical Thinking** – where learners are involved in authentic problem solving and have transformed information into original ideas and findings.

**Innovation in Challenging Contexts** – where teaching happens outside the box despite an environment that would not normally allow for innovative teaching practices.

**Cutting edge use of Microsoft Technology for Learning** – where technology is used not just for productivity but to achieve learning goals and to acquire skills and knowledge.

What are the rewards?
The best projects overall will represent South Africa at the Middle East Africa Microsoft Partners in Learning Innovative Education Forum which takes place in a middle-eastern or African country. Winners from this regional forum will then participate in the Global Partners in Learning Innovative Education Forum which can take place in any country in the world. A range of other prizes from sponsors could also be awarded.

Comments from Innovative Teachers finalists

- “From the depths of my heart I would like to sincerely thank you for the wonderful initiative and amazing enthusiasm by which you gave recognition to teachers who really have done more than their fair share in education.”

- “I like the spirit of learning and it inspires me to think out of the square. I would like to enter again because I meet with the most wonderful of people that showcase teaching so positively.”
Intel® Teach is part of a worldwide effort to help educators integrate the use of computers and the Internet into teaching that enhances learning. Intel Teach is localized for South Africa and is designed to prepare participating educators to plan projects that promote the effective use of computers and the Internet in the classroom. Teachers have been using the Intel® Teach programme in South Africa since March 2003 and the content of the course has been updated annually.

When teachers design projects that integrate ICT they are planning classroom experiences that are aligned to the South African national curriculum.

Some provinces fund Intel training for their curriculum advisors as well as for ICT coordinators and teachers. Seven out of nine provinces include Intel Teach as an integral, albeit advanced component of their provincial ICT strategy for schools. Intel Teach courses are recognized by SACE (South African Council for Educators).

What does Intel® Teach offer?
- Training for Teachers
- Face-to-face or distance training (depending on the course)
- Skills for designing effective projects
- Advanced ICT integration techniques
- Alignment to the SA curriculum

What is required from a school or a provincial department of education?
- One computer per educator during training
- Preferably an internet connection

Intel® Teach: Getting Started
This is an entry level course that focuses on ICT skills but does include 21st century teaching and learning skills and approaches, such as student-centred instruction, critical thinking, and collaboration.

Intel® Teach Essentials
This is the most well-known course offered by Intel® Teach and the most rigorous. It guides teachers through effective planning of classroom projects; it emphasizes a strong focus question which ensures that learners are challenged to think at higher levels as they process the information that they have gathered during the project. Essentials targets teachers with a basic background in project-based learning and well-established ICT skills. This course has been regularly revised and now includes the use of Web 2.0 tools.

What is provided by Intel?
- One Intel® Teach resource DVD per educator
- A specialist senior facilitator
Thinking tools are ideal learner support tools in classroom projects. They encourage visual ways of thinking and encouraging learners to engage with each other constructively. The course focuses on integrating online thinking tools into classroom projects. Intel’s online thinking tools are available for free to all schools in the world. They comprise:

**Visual Ranking** – used for ranking items in a list in order of importance; working in pairs or small groups, learners are engaged by deeper thinking and justifying their ranking.

**Seeing Reason** – used for investigating cause and effect relationships in a visual mapping format. This results in in-depth analysis of underlying issues.

**Showing Evidence** – used for gathering and evaluating evidence in response to a claim or argument. The resulting evidence is visually arranged to support or refute the claim. Learners also evaluate the strength of information sources and the extent to which they support or refute the claim - excellent for building information skills.

Visual Ranking

Showing Evidence

Seeing Reason
Elements consist of three digital learning courses which have been localized for the African context. The model for delivery will be a blend of face to face and self-study with online support. These courses cater for teachers with existing intermediate ICT skills.

**Project Based Approaches** - Introduces you to project-based approaches for your classroom in a self-paced or facilitated interactive experience.

**Collaboration in the Digital Classroom** - Helps you to prepare students to collaborate in the digital, global world.

**Assessment in 21st Century Classrooms** - Introduces you to assessment strategies to meet the needs of 21st century learning.

**Project Based Approaches**

Project based approaches help teachers design activities to engage students with self-directed learning. Teachers are introduced to helpful ideas and new approaches to use in the classroom. The course consists of five modules which each take about 2 hours of e-learning study time. Additional time is spent on devising action plans. In South Africa this course can be started with a face to face session.
Collaboration in the Digital Classroom

In this course teachers discover ways to plan and manage student collaboration whether it is within the classroom or with other classrooms or with experts outside of the classroom. Means of assessing students engaged in collaborative activities are described as well as ways in which teachers themselves can collaborate.

Assessment in 21st Century Classrooms

This course takes an in-depth look at assessment that meets the needs of 21st century learning. Teachers learn how to plan, develop, and manage student-centered assessment.
Skills for Success

What is it?
A basic technology literacy education program that promotes entrepreneurship.

Who’s it for?
Adult learners or out-of-school youth with little or no experience with computers.

What does it teach?
Participants learn the “basics” of the computer, enabling them to use the computer in ways that are relevant to their daily lives.

What skills will participants learn?
Through active, hands-on experience, participants learn to explore and use basic computer applications that are used in everyday life:
- Internet Search
- Email
- Word Processing
- Spreadsheets
- Multimedia

What will this enable participants to do?
Communicate with friends, family and business associates through email, research and access information on the Internet, create CVs, flyers, invitations, budgets, business cards and documents, presentations, church services and sports programmes, and more.

Intel® Easy Steps

This is a course designed for primary school learners. Teachers are merely trained to facilitate this course and to develop the ICT literacy skills of their learners in the authentic contexts of their learners.
What is the CCTII?

The Commonwealth of Learning (COL) in collaboration with SchoolNet SA has created the Commonwealth Certificate for Teacher ICT Integration (CCTII). It is a qualification at an Advanced Certificate in Education level for teachers and school leaders wishing to focus on information and communication technology integration into school management, teaching and learning. The certificate is based on the very successful Educators’ Network which has been offered by SchoolNet SA in many African countries in collaboration with a South African University.

The CCTII aims to improve teachers’ experience of teaching with ICT in the classroom and increases school educators’ involvement in leading ICT implementation in the school. It challenges school managers and teachers to constantly reflect on what they do in their school and classrooms and how ICT can be integrated into their evolving management and teaching styles.

The CCTII qualification is designed as a distance course for school-level educators. It is Open Courseware that COL and SchoolNet SA are making available to teacher training institutions throughout the Commonwealth. All course content was revised in 2012.

• Materials are CD based and online at www.schoolnet.org.za/CoL/ACE
• Local tutor support can be provided via email/internet
• Teachers work in collaborative groups
• Shared experiences among educators
• No visits to a physical campus

The CCTII model

• Activities Driven
Activities are at the centre of the modules and guide teachers to read supporting content, plan and implement classroom activities, reflect on practice and share their classroom experiences with their group.

• Classroom/school context
The all-important context of learning is the teacher’s school, classroom and their subject needs. These are specifically identified by the teachers themselves during the modules. The activities and content do not focus on any specific context but often use examples to illustrate a point. Teachers’ own contexts and experiences are shared as an important contribution to the course content.

• Uses ICT as a tool in the workplace
The emphasis is on how teachers and learners use ICT as a tool and integrate ICT into teaching and learning. The focus is not on computer skills or the technology but rather on the pedagogy.

• Community of learners
The teachers share their experiences with a group of colleagues online, using email groups and other online collaboration tools.

• Sharing Classroom experiences
This course involves trying out new ideas in the classroom, reflecting on them and then sharing thoughts about them with a group of colleagues online. Discussions revolve around contemplating change and possibly implementing new teaching methodology in classrooms.
Structure

Course entry requirements
- Students must have an initial teacher qualification to enter the course
- It is highly recommended that students are practising teachers
- Students must be at least moderately computer literate and be able to perform basic office suite skills, browse the internet and use email.

Assessment
- No examinations
- Submission of assignments
- Portfolio assessment

Modules

Core modules
- Learning teaching and thinking with ICT - a theoretical background
- ICT In schools – Awareness of the range of ICT roles in schools
- ICT and the roles of the educator – ICT skills for teachers using ICT to support their work
- Assessing ICT Integration – considering assessment of the process and products of learning

Elective modules
- Finding Evaluating and Developing Digital Subject Resources
- Project Approaches to Learning with ICT
- eLearning in the Connected Classroom (2012)
- Managing Learning and Teaching with ICT (2012)
- ICT leadership in schools
- ICT planning for schools
Sizanani – accredited by MICT SETA

Who is this course for?
This programme has been developed by SchoolNet SA for use in the non-formal education sector. This course is aimed at high school learners, out of school youth and adult community members who will be using computers for the first time.

Where will training take place?
Training can take place at schools, community centres or suitably equipped central venues. Participants will be given access to Acrobat Reader and Artrage, a free vector graphics programme. Participants should try to have access to a digital camera and a scanner.

What will participants receive?
Participants will each receive 12 workshops in which they will work in groups and provide community services through their ICT skills. An accredited certificate of achievement or a certificate of participation will be awarded upon completion of the course.

Materials:
Pilot materials can be viewed at: http://schoolnet.org.za/sizanani2007/

ICT in the community – participants produce various documents that serve to support an organisation to which they belong.

The most effective model is when training takes place over several weeks using approximately 4 hours per day.

The training involves using the computer to produce artifacts for organisations or teams to which the group members belong. Through producing useful documents, that are meaningful and relevant in the community, trainees will be encouraged to see the benefits of using ICTs.

For example, one activity involves designing a logo. This involves learning about how to draw pictures, take photographs and find images on the internet. Once the logo has been created, participants are then encouraged to use this logo to produce business cards and a letterhead for an organisation in the community.
SchoolNet SA Projects
Nokia Mobile Mathematics is a ground-breaking initiative that uses mobile technology with Grade 10 and 11 learners in South Africa. Nokia has partnered with SAFIPA, Department of Education, MXit, Cell C, Maskew Miller Longman and MTN and is continuously bringing new partners on board in order to extend the reach of this project. SchoolNet SA has been working with provincial departments of education in order to roll out training to departmental officials and Grade 10 Mathematics teachers in South Africa. Nokia will be sponsoring this offering to an increasing number of schools and in additional provinces as from 2012.

The AYV project engages youth in exploring and commenting on their world using video, multimedia, digital art, web, animation, and audio; enhances the skills and knowledge of educators to use these tools more effectively with youth; and widely exhibit the resulting youth work in community, broadcast, and online forums.

In South Africa, a total of 12 teachers and their learners participate in this programme on an annual basis for the past three years. Two learners from KwaZulu-Natal designed a most effective documentary video about street children which earned them a trip to the AYV Summit in California for winners from around…

The Vodacom Foundation is partnering with Microsoft and SchoolNet SA in a three year programme aimed at enhancing initiatives in education. The project consists of two components:

- Providing training and support for Vodacom ICT Resource Centres in all provinces
- Providing Microsoft Partners in Learning training for teachers and schools

ICT Resource Centres have been established by Vodacom and SchoolNet has conducted training.

Encyclopaedia Britannica commissioned SchoolNet to develop a professional development course for teachers using the Encyclopaedia Britannica Online School Edition. This course provides insight into inquiry based and project based learning with teaching strategies that promote 21st Century skills among their learners with special emphasis on information skills, collaborative learning and critical thinking.
SchoolNet SA has a partnership with Sangari South Africa who market the iBox and mobiview tablets with Encyclopaedia Britannica.

The British Council partners with SchoolNet to establish IT Hubs in South Africa as well as promoting a range of future projects for South African classrooms. The first IT hub to be launched is at Mpophomeni Community Centre in the KwaZulu-Natal Midlands.