Highlight: ICT Competencies for Teachers

Promoting teachers competencies on integration of ICT in teaching and learning

Flemish Association for Development Cooperation and Technical Assistance (VVOB) is using a range of support strategies for ICT integration in education in different countries around the world. A crucial factor in these strategies is capacity development on ICT integration among teachers, teacher educators, educational managers and policy makers.

Time to move to competency-based continuing professional development

Continuing professional development in the teaching profession has always been a priority: after all, how can one expect to create a classroom full of life-long learners if one isn’t a life-long learner oneself?

The contextualization and implementation of the UNESCO Teacher Competency Framework in Guyana

The Government of Guyana has outlined various policies that are aimed at creating an environment that will foster technology use and encourage investment in ICT, with the Education sector being one of the most critical areas.

News & Events

Making real world connections through project-based learning and telecollaboration

UNESCO Bangkok conducted its 9th capacity building workshop on designing and implementing ICT-supported project-based learning in Hanoi, Vietnam on 23-27 August 2011. The workshop is part of a larger project, “Facilitating ICT-Pedagogy Integration” funded by Korea Funds-in-Trust that aims to create an enabling environment for student-centered use of ICT by building a stronger partnership between teacher education institutions (TEIs) and schools using project-based learning (PBL) and telecollaboration.

UNESCO Tashkent cooperates with Intel to increase access to quality learning

UNESCO Tashkent office is strengthening cooperation with the private sector for the implementation of innovative projects for quality learning of children. One of such initiatives relates in promoting inclusive education through mainstreaming ICTs and pedagogical technologies.

Chinese and French students create extraordinary climate change videos

UNESCO’s office in Beijing challenged young participants of the animation Summer School to develop animated short films that could help ordinary people understand the causes and the risks associated with the changing climate of the planet.

Look up! It’s the UNESCO educational satellite!

A mini-satellite bearing the UNESCO logo is currently orbiting the earth. It was launched from the International Space Station (ISS) on 3 August by Cosmonaut Sergei Volkov in support of the UNESCO space education programme.

First large-scale survey of ICT in Europe’s schools under way

For the first time, teachers and students in schools throughout Europe are being systematically surveyed on their use and views on technology for learning.
2nd Regional Forum on ICT Capacity Building: ‘Where are we, Where are we going and What will it take to fill the gap?’
The year 2011 marks the completion of the first five years of UN-APCICT/ESCAP’s operations. Entering a new phase and marking its anniversary, APCICT will organize the 2nd Regional Forum on ICT Capacity Building: ‘Where are we, Where are we going and What will it take to fill the gap?’, in Incheon, Korea, from 24-28 October 2011.

Programmes & Projects
Localised teachers’ portals in East Asia
Access English is a four-year project developed and run by the British Council in partnership with ministries of education in nine countries in East Asia. The project aims to provide support to changes in English Language Teaching in three areas: support for policy makers, support for teacher educators and support for teachers.

Resources
ICT in Teacher Education: Policy, Open Educational Resources and Partnership.
Proceedings of International Conference IITE-2010
The book of proceedings includes the papers presented at the International Conference “ICT in Teacher Education: Policy, Open Educational Resources and Partnership” held on 15–16 November 2010 in St. Petersburg, Russia,

Mainstreaming eLearning in national policies: How can we make change happen?
This paper is based on a dialogue that summarises and responds to a workshop on “Mainstreaming eLearning in National Policies”, which took place on June 16th, 2011 in Brussels. It explores new ideas regarding how to make change happen by asking: do we have concrete ideas on how to introduce change in our educational systems?

The Little Data Book on Information and Communication Technology 2011
The Little Data Book presents at-a-glance tables for over 213 economies showing the most recent national data on key indicators of ICT, including access, quality, affordability, efficiency, sustainability, and applications.

Teachtoday.com: Living with technology
Teachtoday is a new resource for teachers, head teachers, school administrators and educators of all kinds. The site contains advice and information on new technologies in education and how to use them effectively and, most importantly, safely.

simSchool: a Classroom Simulator for Educators
Via this website, educators can gain valuable classroom experience, helping them to improve confidence in their teaching ability.

Highlight:
Promoting teachers competencies on integration of ICT in teaching and learning

ICT integration in education is a thematic priority for the Flemish Association for Development Cooperation and Technical Assistance (VVOB). VVOB is using a range of support strategies for ICT integration in education in different countries around the world. A crucial factor in these strategies is capacity development on ICT integration among teachers, teacher educators, educational managers and policy makers. This capacity development includes the provision of strategic and technical advice, the facilitation of training, knowledge building and sharing, and the facilitation of effective partnerships amongst various stakeholders.

In South-East Asia, VVOB has education programmes with an ICT component in Cambodia and Vietnam. In these programmes, Teacher Education Institutions (TEIs) are the main partners. VVOB believes that dedicated educators will always be essential for any successful ICT4E initiative, since they are the key to the appropriate and effective use of technology. In both countries the work aims at the use of ICT to enhance classroom teaching and student learning by teachers’ (and/or teacher educators). Different ICTs are introduced (referring to Technology Knowledge). Educators are encouraged to reflect on pedagogical aspects (referring to Technological-Pedagogical Knowledge) and to apply and try out certain approaches in subject teaching (Technological-Pedagogical-Content Knowledge) (see also: http://www.tpack.org). As argued by Ng, Miao & Lee (2010), too often the approach to ICT integration in teacher training is the one-off crash course on computer literacy. VVOB goes beyond this by engaging educators in exciting learning trajectories on integration of ICT in their day-to-day teaching practice. A guiding principle is to start from the existing curriculum and only to introduce relevant tools and materials that can enhance or even innovate teaching and learning. The TEIs and especially schools in both countries are still coping with limited ICT resources. However, optimal use of existing resources could result in creative solutions.

In Cambodia

In 2009 the Ministry of Education developed an ICT master plan in collaboration with UNESCO. One of the components of the plan is the introduction of interactive multimedia for teacher training.

VVOB Cambodia helps to implement this part of the ICT master plan, and focuses on the development of ready-made multimedia learning materials, specifically for science teacher trainers. These materials mainly include animations, simulations and video clips, and are produced in collaboration with teacher trainers and ministry officials to ensure ownership and quality control.

The materials match the curricula and are contextualized. The set of technical competencies to operate these multimedia applications is minimal, which helps to lower the barrier for use. Support materials have been developed to guide the teacher trainers in how to create most added learning value by use of these interactive applications. This added value is achieved through application of student centred approaches, whereby students are encouraged to reflect upon abstract and complex concepts. Student teachers acquire a superior conceptual understanding of their subject topics and construct knowledge in an interactive way.
Over 200 interactive multimedia applications have been prepared, and a team of trainers consisting of 20 teacher trainers and educational officials are being trained in the use of these applications. They share and transfer their skills to their peers during nation-wide workshops and the follow-up of these workshops, reaching a total of more than 100 teacher trainers. This allows them to improve their teaching and to close the digital divide, learning how to use ICT in an effective manner.

http://www.krou.org
This website freely shares the learning materials developed by VVOB in cooperation with its partners. Although the site is bilingual (Khmer/English), most of the materials available are in Khmer as they are intended for use in the Cambodian teaching curriculum. The emphasis is on providing interactive multimedia and video clips in order to integrate ICT in teacher training practice.

In Vietnam

VVOB Vietnam focuses on training teachers and teacher educators on the use of ICT to activate students in the learning process. A training package on “ICT for Active Teaching and Learning (ATL)” was developed with a core group of teacher educators of five TEIs. More than 500 teacher educators have been trained. They developed lesson plans integrating ICT, and invited peers to observe and evaluate their teaching practice. At the end of the 3-year programme the use of ICT in teaching practice significantly improved in these TEIs (see impact study: http://www.vvob.be/vietnam/?q=paper-assessment-training-package-ict-atl). As a result also pre-service students are more exposed to effective use of ICT. Following up on the Next Gen Curriculum development workshop from UNESCO Bangkok, VVOB Vietnam is involved in the development of an ICT curriculum for pre-service teachers - in collaboration with Hanoi National University of Education (http://www.hnue.edu.vn/) and the Vietnamese National Institute for Education Sciences (http://www.vnies.edu.vn/).

In 2011 the “ICT for ATL” package was used for training of almost 3000 in-service teachers in lower-secondary schools. Training was supplied by the provincial Departments of Education and Training following the VVOB approach on “ICT for ATL”. Each module of the training package, introduces a technology-enhanced instructional design together with technical instructions and manuals for the tools. It complements this with examples and case studies on the use of these tools in classroom teaching in Vietnam. These illustrations consist of videos, lesson plans and teacher materials as well as links to relevant resources and research papers on instructional designs in a Vietnamese context (http://www.vvob.be/vietnam/?q=toolkit-ict-atl). Pending assessment by the Ministry of Education and Training, the training package will be included in a reference list for national training materials for in-service teachers.

http://www.ict4atl.org
The interactive training package on “ICT for ATL”, developed by VVOB and its partners, can be consulted online in Vietnamese as well as in English. The ambition of this platform is to collect and
share examples of integration of ICT in classroom teaching, not only from Vietnam, but from educators from all over the world.

Further information

VVOB is the Flemish Association for Development Cooperation and Technical Assistance. “Education for Development” is VVOB’s motto and its overall objective is to contribute to sustainable poverty reduction and to a more equal world with increased opportunities for all. The organisation’s main objective is to sustainably improve the quality, efficiency and effectiveness of education and training in developing countries. VVOB is currently active and has well established partnerships with Ministries of Education in ten countries in Africa, Asia and South America.

http://www.vvob.be
http://www.vvob.be/cambodia (david.dionys@vvobcambodia.org)
http://www.vvob.be/vietnam (jef.peeraer@gmail.com)

Reference


Further information:

- VVOB Viet Nam
- VVOB Cambodia

Related links:

- UNESCO ICT Competency Framework for Teachers
- ICT competency standards for teachers: implementation guidelines
- ICT Competency Framework for Teachers

Previous issues of the e-newsletter:

- UNESCO "ICT in Education" Announcement e-newsletter

What do you think about this topic?
Time to move to competency-based continuing professional development

Author: Tracy Immel, Education Technology Debate

Often, the word competency and skill are used interchangeably. While they are related, they are not the same. A competency is a demonstrated ability to perform a particular job or task. A competency includes skills, but also behaviours and the ability to apply those skills in order to perform a job or task. For example, a teacher may know how to use a computer and productivity software (skill), but may not know how to use those skills to increase collaboration and critical thinking in their students (competency).

“Through the ongoing and effective use of technology in the schooling process, students have the opportunity to acquire important technology capabilities. The key individual in helping students develop those capabilities is the classroom teacher. The teacher is responsible for establishing the classroom environment and preparing the learning opportunities that facilitate students’ use of technology to learn, and communicate. Consequently, it is critical that all classroom teachers are prepared to provide their students with these opportunities.” (UNESCO)

Continuing professional development in the teaching profession has always been a priority: after all, how can one expect to create a classroom full of life-long learners if one isn’t a life-long learner oneself? However, the way professional development has traditionally been structured can be ineffective and expensive at best, and a waste of time at worst. Unless a teacher understands the requirements, or competencies, necessary to perform their job as well as which competencies they are lacking, effective professional development with lasting impact is not attainable.

Other challenges to effective professional development of ICT integration:

- Many teachers are aware that they should integrate ICT into their teaching practices, but are uncertain as to what that actually means. While brain science, teaching strategies and classroom management are part of most formal teacher preparatory curriculums, the integration of ICT into teaching and learning is not broadly offered outside of technology oriented courses.
- The absence of a common internationally recognized standard in the area of ICT integration, as well as training based on those standards, prevents having a consistent method to measure whether teachers are effectively using technology to achieve desired student outcomes.
- A “one size fits all” training approach fails to meet the needs of individuals. Teachers within one school will have very different needs with regards to ICT training. While
some may have never used a computer, others may be using multiple devices and applications to achieve desired outcomes.

- Mandating training which is not relevant to a teacher. Buy-in by the learner, including the assessment and planning of their development goals, decreases teacher resistance to training and increases the likelihood that what is presented actually results in a change in their teaching strategies.

In 2008 UNESCO, in partnership with Microsoft, Intel, Cisco, and ISTE, formalized the UNESCO ICT Competency Framework for Teachers (ICT-CFT) with an aim to measure the ICT proficiency of teachers against a common international standard and to aid in their professional development. Governments everywhere are striving to improve student outcomes and meet the challenges of preparing a 21st Century workforce for a global, knowledge-based economy. The UNESCO Competency Framework for Teachers is a response to these challenges.

**Objectives of the Framework:**

- Create a common core syllabus that can be used to develop learning materials sharable at a global level
- Provide a basic set of qualifications that allows teachers to integrate ICT into their teaching
- Extend teachers’ professional development to advance their skills in pedagogy, collaboration, and school innovation using ICTs
- Harmonize different views and vocabulary regarding the uses of ICTs in teacher education

The UNESCO ICT-CFT helps ensure continuity of competencies across teacher populations and geographies. For example, in Ireland, teachers have taken a self-assessment written to the UNESCO ICT-CFT standards in order to better understand what professional development resources and support they need. Countries like Mexico, Russia, and Australia are using the UNESCO ICT-CFT as the foundational competency framework on which they will build future ICT Continuing Professional Development offerings.

**How Competency Based Professional Development is Different**

In closing, effective competency-based professional development includes the following components:

1. Adoption of a common set of competency standards defined by role. A computer science teacher may require different competencies contained in the ICT-CFT than a 3rd grade literacy teacher.
2. Teachers identify areas where they need competency improvement.
3. A rich and varied set of aligned resources is provided to teachers to fill those competency gaps which could include job shadowing, classes, workshops, or eLearning.
4. Improved teacher competencies are verified through assessments, observation, or portfolio work.
5. Peer support or mentoring is offered to help teachers carry forward ICT use to the classroom.
6. Teacher competency development is refined and iterated in a continuous-improvement cycle.

This is competency-based professional development. The difference is that teacher’s build their competencies where needed, so there is no need to study what they already know. Emphasis is on application, performance and understanding, not simply on the recall of knowledge. With time to focus on new challenges, teachers can work toward enabling both themselves and students with the technical skills, knowledge and attitudes needed for success in life and the 21st Century workplace.

Further information:

- [Time to move to competency-based continuing professional development](#)

Related links:

- [UNESCO ICT Competency Framework for Teachers](#)
- [ICT competency standards for teachers: implementation guidelines](#)
- [ICT Competency Framework for Teachers](#)

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What do you think about this topic?

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The contextualization and implementation of the UNESCO Teacher Competency Framework in Guyana

*Author: Marcia Joy Thomas, Education Technology Debate*

This is because narrowing the digital gap is more than just providing physical access to computers and the Internet; people must understand how to put it to good use. The ICT in Education Strategy comprises the following elements:
Focus on Professional Development

Policy makers within the Education sector recognized that – in order for the government to achieve its objectives – emphasis had to be placed on teacher professional development in the areas of ICT in education, and therefore looked at ways to contextualize and implement the process.

The National Centre for Educational Resource Development (NCERD) is the Department within the Ministry of Education tasked with delivering all Continuous Professional Development programmes for in-service teachers. The ICT Unit within NCERD, which is staffed by three people, is responsible for all teacher training projects. The mandate of the Unit is to:

- Train all teachers to the Basic Computer literacy level by 2012.
- Manage all schools with computer laboratories (65 Primary, 80 Secondary).
- Implement SuccessMaker Software into the 50 schools which includes training of 2,000 teachers in its use.
- Train all secondary school teachers to deliver the Caribbean Examinations Council (CXC) Information Technology and Electronic Document Preparation and Management Syllabi (109 teachers).
- Research and develop modules for all aspects of ICT training within the Education sector.
- Identify, train and implement low cost technologies with the schools system example (Jolly Phonics, Television, DVD’s, White Boards, etc).

The Unit was brought on stream in 2009 and a five-year work programme was prepared that outlined the rollout of the various tasks as outlined below:

- Contracted local experts in ICT from the University of Guyana (UG) and sought permission from Microsoft to use materials from them to create the first set of training manuals for the Basic Computer Literacy Level.
- Once the Manuals were completed, 20 Master Trainers were trained in the delivery of the content. These master trainers were senior IT teachers from the secondary level, with degrees in computer science from UG and Trained Teachers Certificates from the Cyril Potter College of Education (CPCE).
On average, 15 training classes were held every week, all over the country and in Georgetown.
The SuccessMaker Training Programme was ongoing in 14 primary schools and is being implemented in phases in additional 50 primary schools from October, 2011.
A whole-schools approach to the training of the teachers in the Schools with IT Labs was adopted and training is being done in those schools in the afternoons by the resources persons. The training is a combination of the Basic Computer Literacy and the use of SuccessMaker.
109 secondary school teachers were trained in programming over a period of one year.

As part of the five-year work programme, it is expected that all 13,000 teachers in Guyana would be trained to at least a level of basic computer literacy.

To date:

- 3,500 teachers have been trained in Basic Computer Literacy;
- 30 schools are running SuccessMaker successfully;
- 109 Secondary School teachers are competent to deliver Computer Science syllabi and the number of students writing these subjects has tripled in 2 years.

The ICT unit has faced some challenges. The major ones were:

- Qualified personnel to help with module writing;
- Retention of resource personnel;
- Equipment – lack of computers for training programmes;
- Lack of financial resources for implementation of initiatives and associated travel requirements;
- Lack of connectivity.

After reviewing the options available and recognizing that there was a lack of direction, the Ministry decided to adopt the UNESCO ICT Competence Framework for Teacher in November, 2009. The Ministry then entered into a Memorandum of Understanding with the Commonwealth Secretariat (ComSec) and Commonwealth of Learning (COL) to secure their help in applying the Framework in such a way that it would suit the needs of Guyana. Based on this, an ICT Professional Development Strategy for Teachers in Guyana was developed in March, 2010, within the UNESCO Framework presented below.
The long-term outcomes of this strategy will be to ensure that all Ministry of Education officials, teacher development management and staff, school principals, and teachers are competent to harness ICT effectively to support high quality teaching and learning in Guyanese schools, with:

1. Most able to integrate the use of basic ICT tools into the standard school curriculum, pedagogy, and classroom structures, knowing how, where, and when (as well as when not) to use technology for classroom activities and presentations, for management tasks, and to acquire additional subject matter and pedagogical knowledge in support of their own professional development; and
2. A critical mass able to use more sophisticated methodologies and technologies with changes in the curriculum that emphasize depth of understanding and application of school knowledge to real world problems and pedagogy in which the teacher serves as a guide and manager of the learning environment and students are engaged in extended, collaborative project-based learning activities that can go beyond the classroom and may involve local or global collaborations.

**Description of the Strategy**

The ICT Professional Development Strategy for Teachers in Guyana will provide a comprehensive framework and learning pathway for Ministry of Education officials, school principals, administrators, and teachers to become competent to harness ICT effectively to support high quality teaching and learning. This learning pathway will use the UNESCO ICT CFT as its guiding framework. It will seek to develop core competences for the key intended audiences for a suite of professional development initiatives, as mapped out below.
Thus, the Guyana ICT Professional Development Framework for Teachers will incorporate the following initial professional development options.

1. **ICT components in the revised CPCE programme (which, according to current plans, will be a two-year programme leading to a two-year Associate Degree in Education):**
   - Two compulsory courses to introduce teachers to technology – electronic and otherwise – and then in more detail to ICT in education, equivalent to six semester credits (these courses are anticipated to focus on the level of ‘Technology Literacy’, in terms of the UNESCO ICT CFT);
   - A dedicated focus in secondary subject options to enable teachers to specialise in teaching IT as a subject;
   - Subject-specific ICT integration specializations (incorporated into subject-specific courses, not delivered as separate modules).

2. **ICT components in the revised UG programme (a further two years of study, which will lead to a Bachelor of Education Degree):**
   - Two further compulsory courses on ICT integration in education, again equivalent to six semester credits (anticipated to focus on the level of ‘Knowledge Deepening’, in terms of the UNESCO ICT CFT)
   - A dedicated focus in secondary subject options to enable teachers to specialize in teaching IT as a subject;
   - Subject-specific ICT integration specializations (again incorporated into existing modules, not delivered as separate modules).

3. **A suite of courses to be offered by NCERD, with the possibility that some may, through a licensing agreement, be delivered by one or more suitable third-party suppliers and quality assured by NCERD. In the next five years, the objective will be to:**
Create a dedicated module on ICT Integration for school principals, to be integrated into the 18-month course for school principals. In addition, it will be important to offer this module as a stand-alone course for people who have already successfully completed the course without the ICT Integration module. This module will include a specific focus on ‘Using ICT in school administration’.

Re-package the four ICT Integration modules being designed for the new CPCE and UG ADE and B. Ed. programmes as into two stand-alone courses for qualified teachers, as well as designing a stand-alone course for qualified teachers who are teaching IT as a subject, but are not formally qualified to do so.

Develop a stand-alone course on using Success Maker in schools. This short course will require two versions, one for teachers who are already ICT literate and one for those who are not.

Design of a course for ICT Coordinators at schools.

Design of a course for ICT maintenance and support personnel.

Implementation

The Innovative and Communication Unit within NCERD has worked closely with a consultant appointed by COL and ComSec on all aspects of the strategy and agreed upon the following principles and assumptions:

- Integration of the UNESCO ICT Competency Framework for Teachers into all ICT TD initiatives and the curriculum design of all courses;
- Focus on constructing clear learning pathways for Guyanese teachers aligned to the Framework;
- Use of appropriate technologies and online/offline applications – different models;
- Delivery of professional development will be timed to coincide with ICT infrastructure models and rollout into schools;
- Alignment of pre-service and in-service TD (CPD);
- Increase capacity to deliver and capacity building of all staff;
- Change management is central to the strategy;
- All courses will be competency-based and include appropriate blends of face-to-face and distance learning and use of e-learning/appropriate technologies;
- Seek international benchmarking for courses (e.g. submit relevant courses and modules that it designs to The Virtual University for Small States of the Commonwealth for formal approval when this becomes possible);
- Seek to build on and adapt existing national and international courses and modules wherever possible;
- Facilitate sharing of courses and materials by releasing them as Open Educational Resources (OER) on the Connected Classrooms Repository.

In addition, the World Bank, in collaboration with the Government of Guyana, has launched a project for the re-structuring of the CPCE and the UG Faculty Of Education and Humanities. The decision was taken that the UNESCO Framework would also be the basic
for all ICT Courses offered by the two Institutions and that they would be aligned with what was offered at NCERD.

The COL/ComSec consultant, working very closely with the ICT Unit at NCERD, has:

- Designed an instrument that is being administered to all Guyanese teachers, as well as personnel at CPCE, UG, and NCERD. This instrument is a baseline study that will be used to determine the ICT capacity of the respondents. The data analysis and results will be used for decision making within the MOE, and this analysis will be repeated annually.
- Begun developing the Modules for Technology Literacy and Knowledge Deepening. The existing modules from all ICT courses offered at the three institutions will be reviewed and modified to meet the standards of the UNESCO Competency framework for Teacher Professional Development. The first set of modules is expected to be piloted in August, 2011.
- Several proposals for the improvement of the ICT Infrastructure within the three institutions have been tabled and procurement is on-going.

Conclusion

In conclusion, recognising that it is people that drive ICT use to create change in societies, the Ministry of Education is of the notion that the integration of ICT into the learning and teaching process through teacher training and professional development will become the backbone to creating a knowledge society that will have impact on the way ICT is used in the Country.

The plans and initiatives outlined in this document are aimed at:

- Changing the education culture of Guyana by addressing one of the critical needs within the system – stimulating and inculcating the use of ICT by all educator at all levels thus moving them from the analogue mode of thinking and moving them to the digital age, which will bridge the digital divide between teachers and their learners.
- Creating a society of responsible ICT users who can effect change in the way ICT is currently being used in Guyana – teachers and students can make decisions and choices that are based on a social and moral responsibility to the country.
- Preparing teachers with the fundamentals to be the driving force behind all of the initiatives that are being implemented by the Government of Guyana.

The conceptualization and implementation of the UNESCO competency framework will equip the teachers to face the growing demands for Guyana to join the rest of the Caribbean and world in creating a global Knowledge Society.

Further information:
• The contextualization and implementation of the UNESCO Teacher Competency Framework in Guyana

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News & Events

Making real world connections through project-based learning and telecollaboration

Based on the numerous policies that are in place, the Vietnamese government is very keen on supporting ICT infusion into education. It has been reported that schools are 100% ICT-equipped and have reliable Internet connection. Local software applications have been made available as well. Further, school administrators, teachers, and students have been trained on basic ICT skills. However, despite all these efforts, it has been observed that most teachers are not too concerned on adopting innovative methodologies in the use of ICT to support and enhance learning processes. Policies and standards on actual ICT infusion in the classroom to guide teachers have yet to be established.

It is in this light that UNESCO Bangkok conducted its 9th capacity building workshop on designing and implementing ICT-supported project-based learning in Hanoi, Vietnam on 23-27 August 2011. The workshop is part of a larger project, “Facilitating ICT-Pedagogy Integration” funded by Korea Funds-in-Trust that aims to create an enabling environment for student-centered use of ICT by building a stronger partnership between teacher education institutions (TEIs) and schools using project-based learning (PBL) and
telecollaboration. The previous eight workshops were held in Bangladesh, China, Malaysia, Philippines, and Thailand.

This particular workshop was co-organized with the Hanoi National University of Education (HNUET). Thirty-two teachers from ten different schools in Hanoi and nearby areas participated in the five-day workshop. School Principals, officials from MOET, teacher educators from HNUE, and experts from VVOB (an international NGO working in the field of ICT and teacher education in Vietnam) also attended the workshop. Ms. Janet Pillai from the Universiti Ssains Malaysia (USM in Penang) was invited by UNESCO Bangkok to serve as the main Resource Person, together with Ms. Jonghwi Park and Ms. Mel Tan, Programme Officers in ICT in Education of UNESCO Bangkok.

The resource persons underscored the potentials of the PBL approach in engaging students in interactive, interdisciplinary, and collaborative activities to apply the knowledge learned and skills gained in actual real life situations. PBL encourages active learning, taking on different roles, and making own decisions. Further, multiple skills are learned / gained, for example, interviewing and research skills, teamwork, and networking.

Ms. Pillai talked about PBL illustrating its interconnection with other pedagogical approaches. She provided the participants with a greater perspective on PBL as she presented a model of its implementation in a school in Sandakan, Malaysia. She believes that teachers can always motivate students to initiate interesting, meaningful, effective, and self-directed learning activities through PBL. She said that “Children like PBL because they get to explore and inquire by themselves (like detectives), create their own products which is empowering!” She, however, emphasized that the student project teams would need teacher guidance before, during, and after the project.

The participants greatly appreciated the presentations on local case studies showing that PBL can indeed be done by teachers for regular Vietnamese classes. The teacher presenters observed that PBL provides opportunities for students to make real world connections. They also talked about how much fun the students had while learning about different concepts since PBL is flexible enough to accommodate student interests, teamwork, and a diverse mix of outputs like a game show, machine contraptions, brochures, and documentary videos. They also talked about the various challenges and barriers that teachers face in using PBL including getting management support, investing extra time and effort (especially for projects that required after-school activities), and partnering with interested groups.

To get hands-on practice on PBL, the participants were divided into five groups that allowed them to try out inter-disciplinary and inter-school collaboration. The projects that they conceptualized and designed during the workshop were as follows: 1) Comics: a new look; 2) Advertising a product; 3) Study on the Level of Sewage Pollution in Xuan Dinh Handicrafts Village; 4) Bringing Folk Games to the Elementary School Kids; and 5) Preserving Cultural Village of Vong. Ms. Pillai guided the participants through the project.
design phase by taking them through the Project Plan Framework and Task-Tools/Resources templates that teachers and students can use for planning and executing projects. “Once the PBL steps are identified, the action plan becomes clearer to guide project activities toward effective implementation,” stated one participant.

Groups then presented their outputs through mini presentation sessions at the end of every session. This allowed the participants to learn from and suggest improvements to the other groups. The discussions arrived at the common understanding of PBL and expressed that “in project-based learning (PBL), students work in teams and explore real-world problems and share what they have learned. Compared with learning solely from traditional ways (mainly from textbooks), this approach has many benefits for students, including (1) Deeper knowledge of subject matter; (2) Increase self-direction and motivation; (3) Enhance research and problem-solving skills”.

The Hanoi PBL workshop also allowed the participants to pilot-test UNESCO-Bangkok’s online Education Community where they uploaded and shared their session outputs, insights, and other resources. Towards the end of the workshop, various ICT tools in support of PBL and telecollaboration were examined like word processors (for PBL templates, documentation), spreadsheets (for Gantt chart, patterns and trends, budget projections), mindmapping software, virtual tours, online repositories and archives, interest group forums, wikis, teleconferencing, etc. The participants then tried out some free applications like MS Photo Story (for photo essays and digital stories), www.postermywall.com (for posters), and stripgenerator.com (for comic strips) that they or their students can use for their projects.

The workshop evaluation by participants indicated that the workshop was generally interesting, useful, and relevant to them. They agreed to continue enhancing their project designs and to try executing the projects in their respective schools, with assistance from the HNUE PBL team. However, they would like to see the PBL-telecollaboration workshop conducted for more teachers from more schools in Vietnam. They would also like to see additional local PBL cases to learn and model from. In all, as one participant puts it, “the workshop is rewarding and it must encourage teachers to apply PBL and train them with approaches for interdisciplinary and inter-school collaboration.”

UNESCO Bangkok and HNUE will continue to provide technical support and guidance through UNESCO-Bangkok’s Education Community in order for the participating teacher teams to successfully execute their PBL designs.

Further information:

- Facilitating Effective ICT-Pedagogy Integration Project

Related links:
• Project-Based Learning and Telecollaboration enhances teachers’ confidence in Bangladesh
• UNESCO Bangkok supports Thailand’s second decade of education reform using project-based learning and ICT
• Capacity Building Workshop on Project-Based Learning and Telecollaboration, Chonburi (Thailand)
• UNESCO launched project-based learning and telecollaboration in Chinese schools
• Next Generation of Teachers Project
• Vietnam to develop Next Generation of Teachers
• Nepal develops Master Plan for ICT in Education
• Creating the next generation of educators
• UNESCO Bangkok kicks-off new ICT in Education project funded by Korean government
• ICT in Education Teacher Training Modules for Developing Countries
• UNESCO Bangkok and Intel sign agreement to deliver Next Generation of Teachers Project in Asia-Pacific
• Next Gen empowers teacher education institutions
• Fourth Deans Forum – The Next Generation of Teachers Project
• Developing ICT curriculum for the next generation of teachers
• Next generation of teachers from the Asia-Pacific successfully trained in integrating ICT into teaching

Previous issues of the e-newsletter:

• UNESCO "ICT in Education" Announcement e-newsletter

What do you think about this topic?

• Visit our on-line forum and share your views

UNESCO Tashkent cooperates with Intel to increase access to quality learning

Author: Bakhtiyor Namazov, Education programme officer, UNESCO Tashkent office
UNESCO Tashkent office is strengthening cooperation with the private sector to implement innovative projects for quality learning for children. One of such initiatives is promoting inclusive education through mainstreaming ICTs and pedagogical technologies.

Within the cooperation with Intel Corporation, UNESCO Tashkent office has conveyed 50 Classmate Personal Computers to two specialized schools No. 100 and No. 102 in Tashkent
city for children with hearing impairment and mobility difficulties, as well to one mainstream school No. 12 in Izboskan city in Andijan region, in which inclusive education is practiced. In these schools a one-to-one computer education programme will be piloted.

The overall objective of the programme is to introduce ICT solutions for social integration of children with different abilities and to increase access to quality learning. Through this programme, efforts will be given to enhance teaching and learning of both traditional subjects and the 21st century skills for children with hearing, moving and mental difficulties.

This pilot programme is aimed to achieve better adaptation to individual learning styles, motivate and engage children, cultivate self-directed learners, and provide children with anytime, anywhere access to learning resources.

The first training workshop was conducted on 22-26 August, 2011 in Tashkent to enhance capacities of pilot school teachers, methodologists, education experts in inclusive education. Main participating partners are Ministry of Public Education, Republican Centre for Social Adaptation of Children with technical and financial contribution from Intel.

Further information:

- UNESCO Office in Tashkent

Related links:

- Training workshop on new pedagogy and ICT in Samarkand, Uzbekistan
- UNESCO Forum on enhancing capacity in ICT in Tashkent

Previous issues of the e-newsletter:

- UNESCO "ICT in Education" Announcement e-newsletter

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Chinese and French students create extraordinary climate change videos
When young minds travel half way around the globe and collaborate with their peers from another country, creativity thrives to produce powerful new ideas. Such was the spirit at the animation Summer School held this summer in Beijing, which brought together graduates from the world’s top animation schools: Gobelins of Paris and Communication University of China (CUC) in Beijing.

UNESCO’s office in Beijing, which has supported the school, tapped into these creative minds and challenged them to develop animated short films that could help ordinary people understand the causes and the risks associated with the changing climate of the planet. To help the students get a better grip on the topic and understand its complexities, a science specialist from UNESCO made an introductory presentation to the students. The presentation traced the evolution of change in Earth’s climate, highlighting the last 50 years of accelerated rate of change as a result of human activities.

What followed was a month of hard work mixed with fun of interacting and working in a cross-cultural environment for both the French and Chinese students, resulting in the creation of five extraordinary animations of 40 seconds each. Crisp storyboards with humor and emotion combined with unique techniques of these animations deliver powerful and succinct messages on climate change that appeal as much to children and ordinary people, as they would to high-level policy makers from around the world.

The short films will soon be available on UNESCO’s YouTube and iTunes U channels while CUC will distribute them to national and local broadcasters in China. DVD’s may be requested from UNESCO Beijing office.

The Summer School concluded with a small ceremony at CUC where the animated short films were screened followed by an interactive session with the students. The films will now be screened at the forthcoming ANIWOW! 2011 student animation festival on 28 October 2011.

Further information:

- [Chinese and French students create extraordinary climate change videos](#)

Related links:

- [UNESCO evaluation shows student achievement increases by combining professional learning, compelling interactive digital content and technology in the classroom](#)
- [Practical use of animations in teacher training](#)
- [Science education for children using the TV magazine](#)
- [Tate movie](#)
- [Multimedia training videos](#)
Look up! It’s the UNESCO educational satellite!
A mini-satellite bearing the UNESCO logo is currently orbiting the earth. It was launched from the International Space Station (ISS) on 3 August by Cosmonaut Sergei Volkov in support of the UNESCO space education programme.

The satellite, known variously as ARISSat-1, Radioskaf-B and KEDR or "Cedar", weighs 30 kg, measures 550 x 550 x 400 mm and was developed by amateurs, including secondary-school students in Russia, Malaysia, the United Kingdom and the United States.

It is the prototype test flight of a proposed series of amateur educational satellites being developed by amateur radio organizations in cooperation with RSC-Energia (Russia) and NASA (United States). It commemorates the 50th anniversary of the first manned flight into space by the Russian astronaut Yuri Gagarin, whose call sign was KEDR.

Since the launch, the “UNESCO Satellite” has transmitted images and signals through the ISS on-board amateur radio station which are being received by individuals, schools and universities all over the world on the 145,950 MHz (0.5 W) frequency. The satellite is also transmitting pre-recorded voice messages in several languages.

The test flight is the first stage of a programme on the use of space facilities for educational purposes, as well as for international scientific experiments in the field of basic sciences. This programme was proposed by the Russian Federation and adopted at the 35th UNESCO General Conference.

The satellite is expected to last in orbit between three to nine months.

Further information:

- Look up! It’s the UNESCO educational satellite!

Related links:
First large-scale survey of ICT in Europe’s schools under way
For the first time, teachers and students in schools throughout Europe are being systematically surveyed on their use and views on technology for learning.

Technology is increasingly used in schools, is a ‘must-have’ for young people, and its contribution to educational, social and economic goals is recognised in national and European policies. It is therefore important to have a clear understanding of the extent of its provision and use in schools across Europe. That is why the views of head teachers, teachers and students are being collected, through online questionnaires (also a first), for the European Survey of Schools: ICT and Education. ESSIE aims to provide answers to questions such as:

• How do young people’s experiences of ICT compare in and out of school? Do they vary between countries?
• What are the views of the typical European head teacher and classroom teacher on ICT?
• How many classrooms are really online, equipped with interactive whiteboards, and laptops? How many teachers are at ease in them? And what are the outcomes for learners?

ESSIE aims to benchmark progress in ICT availability and use in 31 countries (the 27 countries of the European Union, plus Croatia, Iceland, Norway and Turkey). Some 1 200 primary and secondary schools have been selected in each country and head teachers of these schools should expect emails about the survey in their in-box this month. European Schoolnet’s Executive Director Marc Durando said: “We hope for a high response rate to ensure that the findings are based on a solid evidence base. All information obtained will be used solely for the survey and no individual will be identifiable.”
In each country a national coordinator nominated by the ministry of education is working on ESSIE. The UK National Co-ordinator, Bill Gibbon, said: “I will be working with ESSIE schools to help them complete the survey. We recognise that schools are busy places and every effort is being made to ensure that there is as little disruption as possible.”

The survey will produce findings of value for school planning and decision-making on the deployment, management and use of technology to be published in country and international comparison reports in 2012. Timo Lankinen, Chief Executive of Finland’s National Board of Education commented: “Our country has prepared national plans for ICT and we need information about developments and how Finland compares with other countries.” Marta Hunya, senior researcher at the Hungarian Institute for Educational Research and Development, echoed these views: “In Hungary the monitoring process of using ICT in public education started a year ago, and we hope that this international survey will raise awareness of the importance of the issue at all levels from schools to the government. We have developed an ICT self-evaluation website and tool and I am curious to see the results of both surveys, and how they compare with each other.”

Funded by the European Commission Directorate General Information Society and Media and supported by ministries of education, ESSIE is led by European Schoolnet and the University of Liège, More information can be found at essie.eun.org.

Further information:

- First large-scale survey of ICT in Europe’s schools under way

Related links:

- EMIS development in a new era
- Partnership for measuring ICT for development. Core ICT indicators, 2010
- The report on the status of ICT integration in education in Southeast Asia
- Learning from national ICT/education agencies
- Assessing the effects of ICT in Education: Indicators, criteria and benchmarks for international comparisons
- UIS has released the Guide to Measuring Information and Communication Technologies (ICT) in Education
- New ICT development index compares 154 countries
- Technology companies lead collaboration to improve global education assessments
- Indicators for policy makers
- Handbook on Monitoring and Evaluation of ICT in Education Projects

Previous issues of the e-newsletter:
UNESCO "ICT in Education" Announcement e-newsletter

What do you think about this topic?

Visit our on-line forum and share your views

2nd Regional Forum on ICT Capacity Building: ‘Where are we, Where are we going and What will it take to fill the gap?’
The year 2011 marks the completion of the first five years of UN-APCICT/ESCAP’s operations. Entering a new phase and marking its anniversary, APCICT will organize the 2nd Regional Forum on ICT Capacity Building: ‘Where are we, Where are we going and What will it take to fill the gap?’, in Incheon, Korea, from 24-28 October 2011.

The Forum will provide an opportunity to review the progress achieved, deliberate upon the lessons learned, and accordingly formulate the roadmap for the Centre’s future work so that APCICT can deliver more impactful services to its member states. The Forum will also help facilitate multilateral cooperation, providing a suitable occasion for ICT and development stakeholders to share their experiences and best practices, assess current needs, and identify areas for mutual collaboration. This will be the second Regional Forum on ICT Capacity Building organized by APCICT, with the first one held in March 2007.

The second Regional Forum will also provide a multilateral platform to address a few key themes and trends that have increasingly come into prominence in the very recent past. Among them is cyber security, the importance of which has been highlighted by the increasing incidence of information theft and cyber attacks across the globe. Indeed, cyber security is now becoming closely linked to national security. Another key theme relates to the importance of sensitizing the next generation of leaders to the potential of ICTs for development and the need to bridge the digital divide. APCICT’s current capacity building work for students and youth will provide a useful backdrop for this discussion. Finally, given that the need for ICTD capacity building efforts is greater today than ever before, global partnerships to enhance reach of individual initiatives are critical, as is the importance of capturing the progress and impact of ICTD training programmes and projects to ensure the lessons learned are fed back into improving these efforts.

Objectives of the Regional Forum

- To review the current status, needs, and challenges of ICTD capacity building at the regional and national levels and perform a collective ‘reality check’ on the progress achieved.

- To build consensus and create awareness among key stakeholders about the importance of cyber security, ICTD capacity building for youth, and effective monitoring and evaluation of ICTD capacity building initiatives.
To formulate a plan of action based on the recommendations from the Forum participants and to pave the way for fruitful networking and mutual collaboration.

**Event Structure**

To achieve the above objectives, the five-day Regional Forum (24-28 October) will comprise of a mix of plenary sessions and parallel tracks.

Three Plenary Sessions will be held in Incheon on Oct 24th on the following themes:

- **Plenary Session I**: Cyber Security as a National Priority
- **Plenary Session II**: Turning Today’s Youth into Tomorrow’s Leaders
- **Plenary Session III**: Knowledge Sharing and Global Partnership

These will be followed by 3 parallel tracks named below on Oct 25-27, and a Closing Plenary on Oct 28th:

- **Parallel Track I**: Regional Training of Trainers (TOT) Workshop on Academy Module 6 on ‘Network and Information Security and Privacy’.
- **Parallel Track II**: Regional TOT Workshop for an ‘ICTD Learning Module for University Students’.
- **Parallel Track III**: 3rd Academy Partners Meeting.

**Participants**

The forum will attract a large number of participants from across the globe including:

- Dignitaries and representatives from ICT-related government organizations, civil society, the private sector and other UN agencies and international organizations.

- Representatives from sub-regional and national partners who have championed the Academy programme.

- Representatives from national agencies responsible for cyber security from ESCAP member and associate member States.

- University Deans, professors, lecturers, students, and other representatives from academia and teaching faculty who can subsequently teach ICTD in tertiary education institutions.

*For more information, please write to info@unapict.org.*

**Further information:**

- [UNAPICT](#)

**Related links:**
UN and Bhutan launch ICT capacity development programme to improve connectivity and bridge digital divide in Himalayan kingdom
UN concludes workshop to strengthen ICTD education in the Asia-Pacific
UN ICT Hub publishes ICTD Briefing Note Series
UN training programme helps Cambodia bridge digital divide
UN launches remote training on information communication technology for development
UN teams up with Indonesia to develop ICT training in the country: First four workshops in the national language to take place in Bali and Jakarta
UN works with the Philippines to close the digital divide
UN works with Mongolia to close the digital divide

Previous issues of the e-newsletter:

- UNESCO "ICT in Education" Announcement e-newsletter

What do you think about this topic?

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Programmes & Projects

Localised teachers’ portals in East Asia: Access English by British Council
Author: Caroline Meek, Regional Project Adaptation Manager, British Council, Singapore

What is Access English?
The British Council project, Access English, started in 2008, currently encompasses ten countries in East Asia comprising Burma, Indonesia, Japan, Malaysia, Philippines, Singapore, Taiwan, Thailand, South Korea and Vietnam. Access English has a tag line, “Transforming the Teaching and Learning of English in East Asia”. That is precisely what it has been doing but in so many different ways across so many countries. One of the ways has been to set up localised websites for teachers, with teaching resources and lesson plans linked to the curriculum alongside methodology articles and other professional development materials, all in the s language.

One region, many needs
Despite all the countries being in East Asia, these countries have very different needs. Take Singapore for instance. Singapore is unique in so far as English as a foreign language speakers are in the minority. English in the Singaporean classroom will inevitably be delivered very differently from how it would be in an Indonesian classroom yet the physical divide is a few meters of open sea. The needs of Singaporean primary school teachers are
also without doubt very different. Singapore is at the cutting edge of internet technology and all schools are wired up. In contrast, countries like Indonesia because of their sheer size still have isolated communities whose status can only be described as “no-tech”, leave alone “low tech”.

Having said that, it is clear that Indonesia is keen to move forward. The Director of Pustekkom, Ir. H. Lilik Gani, MSc, PhD, says that he backs the initiative for the newly launched Indonesian teachers’ portal, similar to an online staffroom, and will ensure the agency fully supports the provision of the necessary infrastructure. So for Indonesia the future looks rosy.

Anticipating issues like internet access, the project has made resources available to support teachers in almost any situation. Caroline Meek, the project manager overseeing the development of teacher support systems, says that anything available on the internet can be accessed through resource packs suitable for a “low-tech” classroom, where the teacher can use a CD player or photocopy, or a “no-tech” situation, where the teacher literally has no resources.

A lot of the resources have been adapted from British Council websites such as LearnEnglish Kids, http://learnenglishkids.britishcouncil.org, LearnEnglish, http://learnenglish.britishcouncil.org/en and TeachingEnglish, www.teachingenglish.org.uk. These are open access sites for anyone who wishes to browse. The content is a mixture of learning and teaching resources created by devoted British Council teachers from around the globe plus some commissioned input from English teaching specialists.

Recognising that teachers within the region are not confident enough to use these sites as the content is in English, British Council have worked with Ministries of Education to set up localised online portals in a number of countries in the project. Myanmar, Indonesia, Korea, Philippines, Singapore (private, password-protected site), Taiwan and Vietnam have already launched their own sites with Malaysia going live in the very near future.

Myanmar: http://myanmar-english-teaching-scheme.ning.com/
Indonesia: http://h2te.jardiknas.kemdiknas.go.id/
Korea: http://www.ebse.co.kr/
Philippines: http://bee.deped.gov.ph/
Taiwan: http://ttet.kh.edu.tw/
Vietnam: http://www.teachingenglish.edu.vn/

For more information on Access English, visit our website: www.britishcouncil.org/accessenglish or contact Caroline.Meek@britishcouncil.org.sg

Further information:

- Access English
Related links:

- Focus on new information technologies for International Mother Language Day
- HEXTLEARN: Leading by Example
- Strengthening multilingualism in cyberspace
- UNESCO releases new publication on linguistic diversity in the Internet
- ICT and polyglot

Previous issues of the e-newsletter:

- UNESCO "ICT in Education" Announcement e-newsletter

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Resources

ICT in Teacher Education: Policy, Open Educational Resources and Partnership. Proceedings of International Conference IITE-2010

The book of Proceedings includes the papers presented at the International Conference “ICT in Teacher Education: Policy, Open Educational Resources and Partnership” held on 15–16 November 2010 in St. Petersburg, Russia, by the UNESCO Institute for Information Technologies in Education and the UNESCO Moscow Office in cooperation with the Herzen State Pedagogical University of Russia, St. Petersburg State University of Aerospace Instrumentation, State University of Information Technologies, Mechanics and Optics, and with support of CISCO.

Over 120 participants from more than 20 countries attended the event. It became an intellectual platform for open dialogue between policy makers, teachers, practitioners, experts from public and private sectors, and representatives of educational, scientific and professional institutions and organizations.

The Conference pursued the following major goals: to introduce and disseminate the best practices in ICT application in teachers education, discuss the main problems in ICT use in education, determine the next steps to be made to build the united informational and educational environment for ICT-based teachers’ education and professional development of the new generation of teachers in the Knowledge Society.
The quality of teachers, their professional improvement and training continue to be central to the provision of quality education. Application of ICT, e-Learning and m-Learning, global informational and educational resources should contribute to the improvement of the current situation in education.

Read the publication:

- [ICT in Teacher Education: Policy, Open Educational Resources and Partnership. Proceedings of International Conference IITE-2010](#)

Related links:

- [UNESCO Institute for Information Technologies in Education](#)
- [ICT Transforming Education: The 4th Revolution of Knowledge Dissemination?](#)

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Mainstreaming eLearning in national policies: How can we make change happen?

*Author(s): Pierre-Antoine Ullmo, Sabine Schumann, eLearning Europe*

This paper is based on a dialogue that summarises and responds to [Workshop 08 of the Digital Agenda Assembly: Mainstreaming eLearning in National Policies](#), which took place on June 16th, 2011. It explores new ideas regarding how to make change happen by asking: do we have concrete ideas on how to introduce change in our educational systems? The workshop generated debate on issues related to both policy and practice in order to involve stakeholders from the educational sector in a discussion on the best strategies for improving learning environments.

The Digital Agenda Assembly explored new ideas regarding how to make change happen in the educational system. At the eG8, Robert Murdoch recalled that education was a pending
challenge for our already digital societies. However, the question remains: do we have concrete ideas about how to make changes in educational systems?

The politics and practices surrounding the integration of technology and education raise many questions, and the extent to which this integration enacts real change is currently a critical debate within our field. Therefore, this discussion opens with a series of challenges related to the discourse on change, expressed in terms of four key areas: innovation, infrastructure, impact and pedagogical vision.

Innovation has been identified as a necessary element for creating change but the best way for introducing innovative practices is not always clear. How can we capture the innovation that takes place at the local level? Are we sure that we can transfer innovation as it is, or would it be better to concentrate on the inspirational dimension of some initiatives, in order to generate a myriad of new ones?

Read the paper:

- Mainstreaming eLearning in national policies: How can we make change happen?

Related links:

- Policy makers re-examine implications and effectiveness of ICT use in education
- ICT-Competency Framework for teachers workshop
- Delivering coherent ICT policies in developing countries

Previous issues of the e-newsletter:

- UNESCO "ICT in Education" Announcement e-newsletter

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The Little Data Book on Information and Communication Technology 2011
The Little Data Book presents at-a-glance tables for over 213 economies showing the most recent national data on key indicators of information and communications technology (ICT), including access, quality, affordability, efficiency, sustainability, and applications.
The book may be purchased in hardcopy format through the World Bank online shop, or read online free of charge.

Read the publication:

- Little Data Book on Information and Communication Technology 2011

Related links:

- EMIS development in a new era
- Information Policies in Asia: Development of Indicators
- The report on the status of ICT integration in education in Southeast Asia
- UIS has released the Guide to Measuring Information and Communication Technologies (ICT) in Education
- Observatory on ICTs in Education
- New ICT development index compares 154 countries

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What do you think about this topic?

- Visit our on-line forum and discuss this topic

Teachtoday.com: Living with technology
Teachtoday is a new resource for teachers, head teachers, school administrators and educators of all kinds. The site contains advice and information on new technologies in education and how to use them effectively and, most importantly, safely. Although the site is based in the UK and targeted toward teachers in the EU, the advice they give and the issues they discuss are universal since many of the problems that come along with new technologies affect schools and students in the same way, regardless of location.

Teachtoday has sections on

- Teacher Advice (advice on protecting privacy, maintaining professional boundaries and dealing with various problems like cyberbullying)
As technology develops, we are increasingly responsible for making sure that we utilize it in effective ways to enhance our children’s lives. However, we are also increasingly responsible for protecting our children from the new threats which can arise. This site is a great resource to help teachers and administrators do just that.

Further information:

- Teachtoday

Related links:

- Pedagogical innovation in new learning communities: An in-depth study of twelve online learning communities
- Gateway to 21st Century Skills
- Global learning community centers for developing countries

Previous issues of the e-newsletter:

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**simSchool: a Classroom Simulator for Educators**
simSchool is a classroom simulator for educators. Teachers can gain valuable classroom experience via this website, helping them to gain confidence in their teaching ability.

This website is a place to explore instructional strategies, examine classroom management techniques, and practice building relationships with students that will translate into increased learning.
Teachers may learn from this virtual classroom by analyzing students’ differences, adapting instruction to an individual’s needs, gathering data about the impacts of instruction and seeing the results of their teaching.

Results have shown an improvement in general teaching skill, an improved confidence in using technology, and much more. simSchool aims to help teachers become more effective leaders in their classrooms and learning communities.

Further information:

- simSchool: a Classroom Simulator for Educator

Related links:

- SimSchool – simulated classrooms for trainee-teachers
- Training secondary teachers in rural Bangladesh using mobile technology
- Australian students win award for an innovative educational tool

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