

The Need For A New Perspective: Creating Learning Networks for African Teachers, Change, Professional Development and ICTs

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Abstract

The dynamics of today's world require a new approach to learning. Rather than tinkering with the current educational practices aiming at improving the situation, we should approach the current crisis of schooling from a completely different perspective. The need to learn how to learn and to provide multichannel learning opportunities through a variety of flexible delivery mechanism forms the basis to this new perspective.

How can we teach teachers how to learn? Ongoing professional development through the establishment of collaborative learning networks promise to provide incentives for change not perceived before. An important driving force behind these professional networks are the emerging information and communication technologies. On this observation UNESCO is developing and implementing a project in Africa, with a pilot in Zimbabwe.

Keywords

Capacity Building, Classroom Practice, Collaborative Learning, Developing Countries, Flexible Learning, Innovation, Internet, Learning Models, Networks, Open Learning, Professional Development, Teacher Education, Teaching Methods, Technical Innovation, Telecommunications

1. INTRODUCTION

Creating Learning Networks for African Teachers is a project that is currently being implemented in the framework of UNESCO's Learning Without Frontiers (LWF) initiative. The project aims to benefit from the emerging powers of modern information and communication technologies to stimulate processes of change within the broader objective of rethinking education and learning. In this paper we introduce the rationale behind this project and elaborate on the opportunities and challenges we are facing with the implementation of pilot activities in Zimbabwe.

2. LEARNING AND TEACHING IN A CHANGING WORLD

2.1 Lifelong learning: learning to live

Today's world is rapidly moving towards a more open and global society, bringing opportunities for economic growth, peace, human rights and international partnership, but also creating new sets of problems related to changing patterns of labour, multi-cultural societies and environmental disruption. Knowledge is dynamic: what is true today, may have no value tomorrow. At the same time, access to information is perceived to be vital to economic development and power. The increasing variety of media sources and growing amount of accessible data create a situation in which the individual or community at the receiver end is increasingly becoming responsible for the selection of relevant, useful and accurate information, a responsibility requiring critical media awareness. While information and communication technologies more and more allow for many people to also generate and disseminate information, and thus play an active role in the processes of interaction between professionals, laymen, learners, policy makers, peers, etc., it requires skills and knowledge and access to resources to effectively do so.

Pressures of the contemporary age require people, communities and institutions to continually develop and utilise different kinds of knowledge frameworks, value systems, intelligences and skills in order to make sense of, adapt to and contribute to change in constructive and non-violent ways. There is a need for people to learn how to deal with the changing demands of our society and at the same time, develop the capacity that allows them to change in order to take control. Learning has become an essential condition for personal and societal growth and development. The report of the Delors Commission defines the vision of the coming century as one 'in which the pursuit of learning is valued by individuals and by authorities all over the world, not only as a means to an end, but also as an end in itself' (UNESCO, Delors, 1996).

2.2 Building flexible and open learning environments

During the second half of this century education received more and more attention as a major factor contributing to development, for a large part driven by the thinking represented in the emerging human capital and modernisation theories (see Fägerlind & Saha, 1983). This resulted in expansion of school enrolment and increases in educational expenditure in absolute terms on a global level. Such actions have been stimulated and reinforced by international conferences such as the World Conference on Education for All (Jomtien, Thailand, 1990) and the mid-decade meeting of the International Consultative Forum on Education for All (Amman, June 1996). While these actions have to be applauded for the achievements in achieving higher enrolment figures, we see at the same time how schools increasingly fail to provide the learning opportunities required in today's communities.

Both human capital theory and modernisation theory have been criticised on their weak argumentation regarding the role of schooling in development. Fägerlind and Saha (1983) argue that schooling is mostly adaptive in nature and reproduces existing social and economic systems rather than triggers change and development. Apart from theoretical critique we can observe now, in the late 90s, that also reality has proven us wrong in our belief in the expansion of the school system as such. In the 70s and 80s, Africa had the highest growth figures in educational enrolment at all levels as well as in expenditures for education as a percentage of GNP (UNESCO, 1995). In the 90s these figures have stagnated or even declined. In Africa more than 200 million adults are illiterate (44% of the adult population) and the gross enrolment figures in sub-Saharan Africa are 73,1% for primary level, 23,1% for secondary and 3,3% for tertiary level education. We also see increasing numbers of drop outs and alarming high unemployment figures among educated youth. Furthermore, the fast increasing enrolment during the 70s and 80s has resulted in ongoing excessive pressures on school systems through increased need for training and re-training of teachers, for more schools, for adaptation of curricula, for more textbooks and learning materials and for improved communications and administration systems.

The Africa example teaches us that society's learning needs cannot be addressed only by expanding the formal education system but require new ways to look at both access to and quality of education and learning. Rather than only aiming at the building of more schools and training more teachers to allow for higher enrolment figures, a new perspective is required in which we look at how we can create more open and flexible learning opportunities for all. We argue that it is not so important to have as many people as possible in the classroom, rather we believe that the focus should be on the creation of learning environments, as the Amman Affirmation (UNESCO, 1996a, p. 8) states:

'Given the trend toward more open societies and global economies, we must emphasise the forms of learning and critical thinking that enable individuals to understand changing environments, create new knowledge and shape their own destinies. We must respond to new challenges by promoting learning in all aspects of life, through all institutions of society, in effect, creating environments in which living is learning.'

Below we will elaborate on how the Amman Affirmation provides the basis for shaping a new learning environment. At the same time this gives us the opportunity to present three interrelated principles underlying UNESCO's Learning Without Frontiers programme.

The need to learn how to learn

We are living in a world that is dramatically different from our world just six years ago, the time it takes to for an individual to complete primary school. The rate of change is so dramatically that it no longer suffices to teach our children what we think is important. Rather than us preparing our children for their life tomorrow, we have to give this task in the hands of the coming generations themselves.

'Whereas in the past, change could be managed through generational processes, each generation preparing the conditions for the next generation to adapt to change, this process has now become and intra-generation one' (Visser, 1997b, <<http://www.education.unesco.org/lwf>>).

The capability to cope with change requires the capacity to learn. It is essential that each person develops a concept of 'self-as-learner.' Learning to learn involves developing oneself to engage in critical reflection and creative thinking. Such processes can be stimulated through approaches that are learner-centred, self-directed and focus on problem- and activity-based learning. A big challenge lies in stimulating the learners' ability to build and enhance their own knowledge structures that are flexible and adaptable.

Multichannel learning approaches

People are part of different communities with diverse social and cultural backgrounds, and are therefore at times exposed to different situations from which one can learn. Only a part of their time children spend in the classroom; in developing countries and also in urban areas of less developed countries, they are watching 3-4 hours of TV per day. Teachers often feel they are competing with modern media for children's attention and interest.

Rather than trying to compete, we believe that the teacher can very much benefit from such 'outside' influences in a constructive way. In order to create effective learning opportunities, learning process facilitators should build on these experiences and stimulate the development of an integrated model of learning that involves classroom teaching as well as interaction with other learning channels such as family members, others in the community, social experiences, other learners and a variety of media (see Anzalone, 1995). Within this framework, teachers should be encouraged to link up more actively with the communities they belong to and build a multichannel learning approach. At the same time, teachers should assist learners in developing a critical eye in judging the varying, and sometimes conflicting, information that these different channels provide.

Flexible delivery mechanisms

As learning can no longer be viewed as a ritual that one engages in during only the early part of one's life with an occasional refresher course but rather a continuous necessity, opportunities for learning need to be provided that are more flexible and open to the specific needs of individuals or groups of learners. People should have the opportunity to engage in learning whenever and where-ever required without being hindered by barriers such as age, distance, time, social, economic or cultural circumstance.

The above three principles imply an approach to learning which promotes the constructive and active contribution of individuals to their dynamic environments. But also, the principles reflect an approach to learning which is able to continually adapt itself to the needs of the learners.

2.3 Educational reform and teacher development

The idea of teachers as change agents is key to many education reform programmes that emphasise the importance of improved teacher training. But somehow such programmes never seem to have the expected results. Teachers constitute the 'largest single group of trained professionals in the world' (UNESCO, 1996b, p. 1). A tremendous challenge when we realise that they are also often considered the largest force against change (Visser, 1997a). Fullan describes teacher training as society's missed opportunity:

'Teachers and teacher educators do not know enough about subject matter, they don't know enough about how to teach, and they don't know enough about how to understand and influence the conditions around them. Above all, teacher education — from initial preparation to the end of the career — is not geared towards continuous learning' (Fullan, 1993, p. 108).

Teachers often operate in isolation, they mostly have no opportunity to reflect on their own practice or to exchange experiences and ideas with colleagues due to high work pressure and/or the necessity to have more than one full time job. At the same time, those teachers who are enthusiastic, capable and highly motivated, are frustrated with their contribution to change and having a long-lasting impact, as often a supporting and understanding environment seems to be lacking.

If we take the existent school establishment and look at what opportunities there are to really do things different, rather than tinker with ongoing practices, or worse, try to do more of the same, teachers are the actors who really are in the position to make things happen, given their central role in the current practice of education. Triggering teachers to initiate such processes of change involves not the imposition of measures by the school management but rather should be the result of self motivated processes of learning by the teachers.

For teachers to make a contribution to doing things different in education and shape environments conducive to learning how to learn in multichannel learning environments using flexible delivery mechanisms, a perceptual change is required of teachers as learners, promoting processes of continuous teacher development. Such processes should not be seen in isolation, but rather as an integrated approach to professional development and educational reform. Teacher development should aim at strategies that stimulate collaboration and partnership between teacher educators, teachers, specialists as well as learners and their parents.

Fullan, Bennet and Rolheiser-Bennet (1990) identify four aspects of the teacher as learner which are crucial in the improvement of classroom practice, and functioning of schools as a whole. We would like to go further and argue that the following four aspects promote a process of opening up the classroom as learning environment, merging the activities that take place in surrounding communities with what is happening in school:

- development of the *instructional repertoire* in teachers: the range of instructional strategies and capability to put to work a variety of learning channels;
- development of *reflective practice* facilitates clarity, meaning and coherence for the teacher in regards to his/her functioning and role in the learning process;
- stimulation of *research* activities to develop an attitude of investigation and exploration, widening the horizon of the teaching practice beyond the constraints of the classroom;
- promotion of *collaboration* with colleagues nearby and long distance enables teachers to exchange experiences, receive and give ideas, feedback and assistance.

It is not so much the four activities as such Fullan and his colleagues see as important, it is the fundamental underlying attitude:

'... not just being good at cooperative learning, but at an array of instructional models; not just being involved in a reflective practice project, but being a reflective practitioner; not participating in a research investigation, but

conducting constant inquiry; not being part of a peer coaching project, but being collaborative as a way of working' (Fullan, Bennet and Rolheiser-Bennet, 1990, p. 17).

Rather than trying to mould teachers' attitudes along these lines, we should seek for opportunities to let teachers become learners, to challenge them in a process of professional development in order to develop those skills and practices that are most constructive in the learning communities they are part of (i.e., the school and the school's environment). Such processes of learning can take place for example through interaction among teachers as colleagues and peers in teacher networks, often but not always facilitated through electronic communication channels.

2.4 ITCs as a catalyst to change: providing opportunities for learning

Communication and information technologies (ICTs) have become an integral part of society in many countries, not only in industrialised countries but also more and more on the African continent (Janssen-Reinen and Vogelaar, 1997). These technological developments are contributing to expanding opportunities for engaging in teaching and learning at individual, community and society levels.

Through their potential to facilitate communication and access to information, ICTs can contribute to collaboration and partnership and are as such key to professional development and educational reform. Using applications like email, computer mediated conferencing, discussion lists, bulletin boards and the World Wide Web, these new technologies have shown to create opportunities for, among others:

- collaboration among teachers and their partners to break through their traditional isolation (see for example Dimauro and Jacobs, 1995; Lieberman and McLaughlin, 1994; Huberman, 1995; Fullan, Bennet and Rolheiser-Bennet, 1990); partnership across the globe (children, parents, teachers) for international peace and understanding of global issues related to e.g. cultural diversity and environmental health (see for example international learning projects as promoted through Kidlink, <<http://www.kidlink.org>>; the Globe Programme, <<http://www.globe.gov>>; MajaQuest <<http://ed.info.apple.com/education/MAYA/index.html>>; Intercultural Email Classroom Connections <<http://www.stolaf.edu/network/iecc>>);
- access to nearly unlimited resources on the Internet and to locally stored information (graphical, audio and text) for the manipulation of materials retrieved or locally produced by users in a variety of ways, for presentation purposes, for experimentation purposes, for exploration purposes, herewith enhancing the development of locally relevant learning and teaching materials;
- learner-centred and self-directed learning approaches (see for example Ringstaff, Sandholtz and Dwyer, 1991; or 2B1, <<http://www.2b1.org>>);

We don't believe in ICTs as such. We believe in the creative power of collaborative networks, combined with easy access to learning resources which are being made possible through ICTs. It is in this context that UNESCO has developed the project "Creating Learning Networks for African Teachers" linking teachers through electronic networks to stimulate educational change.

3 CREATING LEARNING NETWORKS FOR AFRICAN TEACHERS

3.1 A description

The project 'Creating Learning Networks for African Teachers' (see <<http://www.education.unesco.org/educprog/lwf/doc/IA1.html>> for a complete project document) aims to contribute to improving the quality of education and learning by connecting teacher training colleges in Africa to each other and to the Information Highway, thereby enhancing their capacity to respond to new challenges to teaching and learning by facilitating and stimulating innovative experiences:

- i) opening up teacher training colleges to the communities by becoming information, communication and learning resources for educational planners and researchers, for teachers and for specific learning communities;
- ii) changing perceptions among educational planners and policy makers, researchers, teacher educators and teachers, to begin seeing themselves as lifelong learners and agents for transformation in multi-faceted environment.
- iii) involving learners in a process in which they are not anymore passive receivers of education, but instead actively contribute to the definition of their learning needs, the planning and execution of their learning and as such participate in the ongoing process of constructing knowledge useful to themselves and their communities.

The project, still in its pilot stage, will connect a number of teacher training colleges (four to six in twenty African countries) to the Internet in order to develop local, national and regional networks to initiate activities that focus on:

- enhancing dialogue between teacher training colleges, educational planners and policy makers, researchers and practising teachers on issues related to learning and teaching;
- accessing and assessing information on latest concepts, developments and experiments in the field of learning, teaching and education to enhance professional development, building local knowledge structures and stimulate processes of change;
- stimulating the development of locally adapted and relevant curricula, appropriate teaching and learning materials - print based- through group work and groupware, using locally relevant images and sounds (including otherwise inaccessible 'artefacts', in close collaboration with the relevant national education authorities);
- promoting the development and implementation of learning projects, targeting different learner groups of the communities around them;

Through the development of these activities, providing room for creative initiatives of teacher trainers and other parties, the project aims at opening up the school system and the development of an approach to learning which is more in line with the needs and requirements of today's African society.

3.2 Pilot activities in Zimbabwe

Before implementing the project at a large scale, pilot activities will be initiated in a limited number of countries to assess the feasibility of the proposed activities and to further develop the specific modalities and requirements - in terms of hardware, software, connectivity arrangements, networking partners, training, etc. Zimbabwe was selected as a first country for this pilot project and it is currently experimenting with the first phase of the project. The choice of Zimbabwe was

based on its advanced connectivity plans and current attempts to improve the overall quality of its educational system.

So far, a team of enthusiastic educators comprising a selection of members of teacher training colleges, the teacher education department at the University of Zimbabwe, and the audio-visual and curriculum development unit within the Ministry of Education has received basic training in the use of the Internet and computers which have been installed and connected by specialists from the country. Currently, an electronic discussion group is being set up for thematic discussions on education issues, relevant in the specific Zimbabwean context and a national web site is being prepared that will facilitate access to learning resources for Zimbabwean teachers. More advanced applications and collaborative learning projects are expected in time when the users have gained some experience with handling the new technology.

4 CONCLUDING REMARKS

To end this paper we would like to draw the following conclusions and make some observations based on our current experiences with the pilot project in Zimbabwe and other experiences around the world.

1. An expanded vision on lifelong learning requires a perceptual change among teachers to see themselves as learners, as well as facilitators of learning processes that focus on developing capacities among learners to construct their own knowledge base for future development. Teacher development programmes should therefore focus on professional growth and educational reform, rather than on knowledge transfer and skill training.
2. Teacher development could be stimulated through networking and collaboration among peers, researchers and learners. The emerging powers of modern communication and information technologies to enhance communication and facilitate access to information could play an important role to build such partnerships.
3. However, past experiences taught us that introducing ICTs in education is a complex process and its success does not only depend on the technology itself, but rather on sets of attitudes and expectations of the different actors involved, as well as on the organisational and managerial context in which the technology is being introduced.
4. In most developed countries, academic research formed the basis for electronic networking. After its growing success, the commercial sector came in and took over. In most African countries, however, the development and growth of the Internet is a process driven by commercial interest, and specific policies and programmes will be required to ensure democratic participation of the public sector and in particular the poorly resourced educational institutions.
5. Introduction of networking technology in industrialised countries followed the introduction of computers in education. In Africa, however, these processes take place simultaneously, offering both an opportunity to have access to the latest equipment, where computers in most Dutch schools, for example, are too old for access to the World Wide Web, and a challenge to address the general lack of basic computer skills among teachers as well as learners.

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A remark regarding the URLs mentioned in the text and below: as the world wide web continually expands and changes, we cannot guarantee that at the time of publishing and reading the URLs provided here are still valid. Through the site of Learning Without Frontiers <<http://www.education.unesco.org/lwf>> all the mentioned sites and articles can be found. Also this article is available there.

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