Sample Terms of Reference

Building ICT/education agencies:
Case studies of national and regional implementation schemes related to the use of ICTs in education

Background

Many developing countries have embarked upon – and others are seriously considering – large-scale roll-outs of information and communications technologies (ICTs) in their education sector. Similar processes began in most OECD countries 10-20 years ago, in many middle income countries more recently. Structurally, education systems organize themselves in various ways to fund, implement and oversee these sorts of initiatives, which are typically quite expensive – and complex – and the related organizations evolve, in ways incremental and radical, over time. Despite the highly varied local contexts, in most countries, a single institution is core to the implementation of ICT/education initiatives.

What do we know about how such institutions work, and what suggestions might we have for governments creating such institutions for the first time, supporting these sorts of agencies over time, and/or restructuring such organizations to meet future challenges?

Some key questions related to the development of ICT/education agencies (and their functional equivalents, within the public, private and non-governmental sectors) to be considered:

- How should an education system structure itself to meet new challenges in this area, and what roles and responsibilities could/should a dedicated ICT/education agency or unit play?
- What global and regional models for ‘good practice’ exist?
- How should such an institution be organized and staffed?
- What funding mechanisms exist for such institutions, and what are their advantages and disadvantages?
- How have such organizations evolved over time, and what implications might there be for the future?

These ICT/education institutions take various forms. Most prominent in the global consciousness are probably the quasi-autonomous ICT/education agencies under the general direction or guidance of the ministry of education (examples include KERIS in Korea, Becta in the UK, NCET in China). In other countries, foundations or NGOs serve some similar functions, in coordination with units at the ministry of education (examples include the Omar Dengo Foundation in Costa Rica and the Pilipinas School at FIT-ED in the Philippines). In yet other places, related responsibilities are assumed almost entirely by a special department or division of the MOE; in still others, universities (or even the private sector) assume such roles.

A study of such institutional arrangements over time is complicated by the fact that formal place of such institutions can change within the structure of a country’s education system. Examples of this mutability can be found in Chile, where the Enlaces program began as a university-centric initiative and was later folded into the MOE in Chile; in Thailand, where the MOE assumed the schoolnet-related functions originally performed by NECTEC, which operated under the general direction of the MoIT; in Uganda, where the staff of the independent Schoolnet Uganda were absorbed into the MOE; and in Jordan, where the Jordan Education Initiative was rolled out of its home in the MoIT to become a separate NGO.

In addition to taking various forms, such institutions can assume different formal and informal roles and responsibilities integral and vital to the success of ICT use in education. Most commonly, such institutions oversee the roll-out and maintenance of the technical infrastructure (hardware, software, networking) upon which ICT use in schools depends. In addition to fundamental responsibilities around technical infrastructure (including procurement of equipment, installation, tech support, development of technical specifications, and maintenance of educational networks and portals, to name just a few) many institutions slowly accrete additional responsibilities over time – sometimes by design, often by default. These responsibilities can include delivery of (or oversight of) the training
of technical staff; technical training for students, administrators and/or teachers; the development of education
content (digital learning resources); pedagogical training for teachers; research and development, including piloting
of new approaches and practices; the management of community ICT resources and outreach; educational and/or
ICT strategy or policy development; and monitoring and evaluation.

Independent or quasi-independent institutions can have complicated relationships with government departments,
which act (variably) as their key clients, overseers and/or, in some cases, even their 'competitors'. The staffing of
such institutions can be challenging, especially as they may be populated by a mix of employees, civil servants,
seconded staff from other organizations and (especially in very technical areas) private contractors. In some
instances, organizations are established independent of existing government structures expressly to be able to
employ people with certain skills not typically found within government agencies – and to pay these people salaries
out of sync with existing government civil service guidelines. Leaders of such organizations can be drawn from
various specialties, possessing a variety of skill sets.

Institutions can draw on a variety of funding and financing mechanisms, such as dedicated or discretionary
government budgets or earmarks; contracts; user fees; special revolving funds (sometimes made possible by
dedicated monies from universal service provisions); philanthropic donations; revenue-sharing arrangements with
private companies; and subsidies from sponsoring or partner organizations.

Managing relationships with vendors can be an important – and difficult role – for such institutions. In some
cases, such institutions are deliberately set up at “arm’s-length” from existing government units or agencies to allow
for a greater flexibility in dealing with the private sector; in others they are expressly established as a special public-
private partnership.

The enabling legislation and governing regulations for the activities of such institutions vary by country, as do
models for institutional oversight. Over time, such institutions typically evolve, sometimes quite dramatically, in
form, function, size and legal identity. A common challenge for many institutions occurs when their
responsibilities shift from providing mainly technical support services related to ICT infrastructure to assume
additional responsibilities related to pedagogical training, content development, R&D and impact evaluation.
The staff – and leadership – at the core of such institutions in the early years may not be well-suited to delivering,
managing or planning for a broader range of such activities. In addition, by slowly accreting a variety of new
responsibilities over time (whether desired or not), such organizations can experience existential challenges when
political leaders question the suitability of the institution to deliver on an expanded set of responsibilities (the public
hullaballoo in the UK in fall 2009 about the role of Becta – considered one of the model global agencies of this sort
– is one such example of this phenomenon).

In November 2010, representatives from Asia and around the world met in Seoul Korea under the sponsorship of the
World Bank, Korean Ministry of Education, Science and Technology, the Korean Education Research and
Information Service (KERIS) and other partners to discuss these issues as part of a 'global symposium on ICT and
education’. As a result, a set of short case studies of specific country examples from around the world of relevance
to the region have been requested by policymakers from the East Asia & Pacific region.

Scope of work

The consultant will prepare a short (6-9 pages, approx. 3000-5000 words) case study (plus approximately two pages
of supplementary 'annex material') examining the implementation of a selected ICT/education-related initiative from
the perspective of a specific individual implementing organization or institution.

This case study will not be a simple 'history' of a particular institution or initiative, nor a list of basic facts and
figures. Instead, the consultant will provide a focused analysis of specific experience or set of related experiences
(and not necessarily those that have been deemed 'successful'). The case study should start by identifying a
particular challenge or question, and then explore/analyze the relevant options for action. Where the analysis is
historical, a discussion of the path chosen should be included, together with analysis of the results of this choice.
Where the analysis is current (i.e. where an organization is currently considering options in a particular area), an analysis of available options should be included.

As appropriate and relevant, background data and historical information should be included to set the context for the particular case study. In addition, two short 1-2 page annexes should be included:

- A timeline of key events and milestones
- Two 'organograms': the first sketching out an organization's structure(s); the second describing how the organization related to other key actors and stakeholders within a larger ICT/education system or ecosystem

More specifically, each case study should:

1. Identify a specific experience related to the implementation of an ICT/education initiative (or component of such an initiative)
2. Describe the context in which such an experience played out, and the process by which the particular experience was launched, including the most important related factors
3. Describe the process by which related activities were implemented
4. Compare, contrast and analyze select key endogenous (internal) factors which influenced the activities (supportive/constraining)
5. Compare, contrast and analyze select key exogenous (external) factors which influenced the activities (supportive/constraining)
6. Identify key general, policy-relevant conclusions from the experience, including those of key actors and figures involved in the initiative in various capacities

Specific themes or topics explored could include:

- Creating an agency from scratch (including ‘spinning out’ an organization from within an existing governmental department or agency, or ‘spinning in’ an organization back into more formal governmental structures)
- Funding arrangements
- Leadership and oversight
- Public-private sector coordination
- Rolling out and maintaining technical infrastructure
- Teacher training and pedagogical support
- Digital learning materials and education 'portals'
- Piloting new initiatives within existing institutional structures -- and then mainstreaming/scaling the results
- Procurement
- Monitoring and evaluation
- Closing an agency or reducing its mandate / area of activity

Please note that this list is provided to illustrate potential areas of inquiry. Specific themes or topics explored will be identified in collaboration with the World Bank.

In addition, a one-paragraph synopsis (no more than 200 words) should be prepared.

The document should be submitted in English as a Microsoft Word document, single-spaced, utilizing 11-point Times New Roman font and 1” margins.

It is expected that the production of each individual case study will take ~ 10-15 working days.

**Consultant background experience and qualifications**
The consultant should have a strong, demonstrated familiarity with the organization that is the focus of the case study, either as a result of being a key decision-maker or actor within that institution (and/or partner/stakeholder organizations), a key advisor to the organization in question (and/or partner/stakeholder organizations).

The consultant should be able to write well and concisely in English in a case study format. Each case study should be prepared with a general audience in mind – the use of technical and/or institutional jargon should be kept to a minimum, as should theoretical or academic discussions around specific topics.

For more information about this work, which is part of the World Bank’s System Assessment and Benchmarking for Education Results: The Use of ICT (SABER-ICT) initiative, please see http://www.worldbank.org/education/saber-ict.

About the World Bank

The World Bank is a vital source of financial and technical assistance to developing countries around the world. Our mission is to fight poverty with passion and professionalism for lasting results and to help people help themselves and their environment by providing resources, sharing knowledge, building capacity and forging partnerships in the public and private sectors.

Education remains one of the most powerful instruments for reducing poverty and inequality and helps lay the foundation for sustained economic growth. For this reason, it is at the center of the World Bank’s mission of poverty reduction. The Bank works with countries to integrate education into national economic strategies and develop holistic and balanced education systems that produce results, with a goal of helping countries achieve quality learning for all while investing in the skills and knowledge necessary for growth and competitiveness.

The World Bank recognizes the critical importance of effectively utilizing new information and communication technologies (ICTs) to meet the growing need for a more sophisticated labor force, manage information systems, and contribute to poverty reduction around the world. Indeed, the vast majority of active World Bank education projects contain an ICT component. Support for ICT in education includes assistance for equipment and facilities; teacher training and support; capacity building; educational content; distance learning; digital literacy; policy development; monitoring and evaluation; and media outreach. The World Bank works in partnership with governments and organizations worldwide to support innovative projects, timely research and knowledge sharing activities related to the effective and appropriate use of ICTs in education.

For more information about the World Bank’s activities related to ICT use in education, please see http://www.worldbank.org/education/ict.