Success Factors in Introducing Distance, Flexible & eLearning in Technical & Vocational Skills Development

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Abstract

Through working with eleven partner institutions in six African countries, Commonwealth of Learning is supporting the achievement of national education objectives through local solutions using educational media and technology in technical and vocational education and training (TVET). Lessons have been learned about the process which may be useful in other national contexts. We begin by looking at the drivers for ICT in TVET and how ICT is being integrated. The paper proposes a four-dimensional model for assessing institutional readiness for new approaches which facilitate the best opportunities for success. It describes how a combination of online and face-to-face training coupled with the development of a community of practice on a social networking platform is contributing to individual, institutional and system development. Although still in the early stages of this work, a formative evaluation of the process of introducing distance, flexible and elearning into TVET has revealed a set of success factors which may be useful for consideration in other countries. Finally, opportunities for partnerships between educational consortia and ICT companies, to support technology use in TVET, are explored.

1. In this paper I'd like to introduce the Commonwealth of Learning – for those of you who don't know our organisation. In our work in education for development throughout the Commonwealth we are finding that Governments are shifting their educational priorities from academic programmes to skills development. However, conventional institutional approaches to technical and vocational education and training (TVET) cannot meet the huge needs. We believe that countries will need to adopt flexible methods of skills development to make training available wherever people live and expand skills development. Today, I will describe how member institutions of the Commonwealth Association of Polytechnics in Africa are facing the challenges of implementing such approaches. From our experience we can identify some steps to the successful implementation of educational media and technology into

TVET. Finally, I'll look briefly at some of the potentials for private-public collaboration which can support these objectives.

2. The Commonwealth of Learning is an intergovernmental organisation established in 1987 at the Commonwealth Heads of Government meeting which was held in Vancouver. The mandate was established to support Commonwealth governments in education for development. The Mission statement of COL is to help Commonwealth governments and institutions to expand the scope, scale and quality of learning by using new ODL approaches and appropriate technologies.

3. Why do we focus on educational technology and distance learning? Because we believe that through these approaches, access to education can be increased, quality can be improved and economies of scale can make education cost effective.

4. From the outset COL has been funded by voluntary contributions from Commonwealth Governments through their Education Ministries. In the case of our major donors shown here, we receive funding through overseas development aid agencies such as DFID, CIDA and NZAID. For us one of the most encouraging indicators that we are providing the services which are valued by Commonwealth governments is the fact that last year, 44 out of 54 countries paid a voluntary contribution to COL. This is particularly gratifying when we know how much Education budgets are squeezed but it makes us very responsive to the needs of member countries.

5. These are the areas that COL works in – you will see that skills development is just one of 8 main programme areas. Our strategies are quite simple ... ,

- We help to develop appropriate models of skills development using appropriate technologies
- We assist in institutional and national policy development relating to flexible delivery mechanisms
- We offer capacity building opportunities including workshops and online courses
- We help institutions to develop materials – preferably open educational resources published under Creative Commons licences.

6. COL works in support of the international development goals set in Jomtien and Dakar at the beginning of the century. So we governments in their efforts to attain both Millennium Development and Education for All goals. And as a Commonwealth agency, of course we support the Commonwealth values of Peace, Democracy, Equality and Good governance.

7. There are no direct references to TVET in the Millennium Development Goals but the success of governments' and development partners' in achieving these and the first Education for All goal of Universal Primary Education have caused considerable pressure on post basic education and training systems. This extraordinary growth in young people exiting secondary education creates a demand which cannot be met by bricks and mortar approaches and is a feature of TVET systems in developing countries – especially Africa. We believe a new model for the 21st Century is needed and that model will include ICTs used in flexible and blended approaches.

8. The Association for the Development of Education in Africa (ADEA) characterises African TVET systems as having "huge numbers of poorly educated, frustrated and unemployed youth who are 'locked out' of the formal skills training system and unequal training opportunities fostered by inequities based on geographical location, gender and socio-economic factors" (ADEA 2010). I am sure that is a description which resonates around the Commonwealth.

9. At COL, we are in the process of working with our partners to establish a new model to help meet this demand. Flexible Skills Development in Africa promotes lifelong learning by supporting the expansion of skills training opportunities for people working in the informal economy. The OECD suggests that two thirds of the population of sub Saharan Africa is under 25 years and up to 90% of employment is in the informal economy (OECD 2009). This indicates a massive need for skills training for employment in the informal economy.

10. The challenge is that in most African countries the formal TVET system has been losing its identity due to low budget provision, inadequate infrastructure and out-dated materials and pedagogy (UNESCO-UNEVOC 2009). Formal TVET institutions need to become more efficient and responsive to the demands of the labour market.

11. The goal of Flexible Skills Development is to increase access to skills training, particularly for people working in the informal sector so they can improve their livelihoods. COL's approach is to impact on the provision of training for the informal sector through the formal TVET system. We work with partner institutions to focus on 4 areas:

- policy development, strategic and capacity planning
- organisational development including quality improvement
- ICT infrastructure management
- Course design and delivery through educational media and ICT

12. What does the new flexible model look like? Well it is slightly different in each institution according to their programme structure and their target audiences but essentially it includes these elements:

- institutional strategic plans and individual objectives include development and delivery of flexible courses;
- new organisational structures are introduced to support the new approaches – such as FSD Champion Teams and enhanced technical training and support;
- institutions are moving away from a focus on full-time face-to-face contact and introducing more resource-based, individual and group learning.
- Media components are becoming more widely used, such as audio and video that can be used in the classroom or at a distance.
- Teachers are also investigating elements of online programme delivery and formative assessment.
- Finally, an important part of the model is for COL and the institutions to work with policy makers and regulators to codify these approaches.

13. Through the application of readiness criteria eleven institutions were selected on the basis of their readiness for new, flexible approaches. A baseline dataset was established against four dimensions: strategic, organisational, technical and pedagogic. A critical readiness component was the vision and commitment of the institutional heads to expanding access and improving quality through technology and flexible approaches.

14. For each institution, we developed a radar chart which graphically depicts their readiness profile and the institutional teams set about improving the weaker areas of their profile.

15. In collaboration with our partners, we designed a set of capacity building activities. Institutional managers, administrators and teaching staff are participating in a series of capacity building activities which included online training on the COL Moodle learning management system, workshops, institutional visits and experiential learning.

16. An online community of practice has been established on a social networking platform. Through this Community Learning Network, more than 300 members interact with each other, the COL Team and other TVET experts and are involved in discussion, collaboration and informal learning. It is a lifelong learning platform in its own right.

17. TVET Institutes and polytechnics in 6 countries involved in FSD are focusing on a range of institutional development activities to establish an effective flexible and blended approach to TVET programme provision in their own local and national context. These activities include:

- setting departmental and institutional targets for the introduction of new courses;
- engaging with national policy makers; enhancing existing technical infrastructure;
- staff development in the use of educational media and ICT for teaching and learning;
- market research and feasibility studies amongst their local communities;
- developing new short courses.

18. Institutions have demonstrated a clear commitment to change. There is an acceptance of the principle of National Challenges – Local Solutions, and through this strategy change at institutional level, national perspectives and policy are being informed and challenged for improvement. Most institutions have made progress in linking strategic objectives with FSD activities. There is a good understanding of the challenges and barriers they face. The main challenges are the management of technical infrastructure and the strengthening of staff capacity to utilise ICT in teaching. There is a need for sensitisation of the community, national policy makers and other stakeholders regarding these new technology-enhanced approaches.

19. There are significant technical challenges for most institutions to successfully integrate ICT into learning and teaching (particularly the high cost of internet bandwidth). However, the desire to initiate some pilot activities is enabling some of the barriers to be overcome. Institutions are investigating thin-client alternatives to provide PC labs facilities. Some have introduced loan schemes for staff to purchase laptops and the creation of wi-fi hotspots on their sites has encouraged students to purchase laptops.

20. Most institutions do not have the technical expertise to produce coherent strategies for the on-going development of their ICT infrastructure. Governments could provide assistance to create and publish guidelines for educational institutions on how to develop their ICT strategies within the framework of the national ICT strategy. It is important to note that flexible approaches are not only about elearning – COL advocates the use of appropriate technology – which in many cases is currently limited to offline technologies.

21. African countries pay substantially higher internet costs than in most countries. Affordable bandwidth is a barrier to elearning in TVET although some institutions are currently running Moodle on campus LANs. Internet Service Providers and telecoms companies are interested in partnering in order to widen provision. Some of our institutions are also investigating mobile learning which also requires working with a telecoms provider.

22. A significant number of teachers have improved curriculum development capacity and are now developing media-enhanced curriculum components to improve the quality of their teaching. Many have also understood that the use of ICT represents an opportunity, either in terms of personal promotion, or for entrepreneurial activities. The potential for improving teacher competence and awareness of developments within their own subject area is being established. New courses for the informal sector are being developed.

23. There is one selected institution which has not made any real progress with FSD and this is most likely due to a change in institutional head since the start of the activity. Strong leadership and commitment from the Head of the institution is proving to be an important factor in the successful integration of ICT in TVET. These partnerships with telecoms and internet service providers have been recognised as important but are yet to be fully explored.

24. The move towards more flexible and blended approaches to skills development is a lengthy and challenging process involving continuing learning and application to establish what works in each individual institutional context. It is too early to show whether more flexible approaches are impacting positively on access, efficiency or the quality of teaching and learning.

25. But what can we say we have achieved so far? In Flexible Skills Development, COL has set out to investigate the application of open and distance learning approaches to TVET through the use of educational media and technology. After one year of implementation, there is evidence to show that these new approaches are being institutionalized in 10 of the 11 key institutions. The most important developments thus far have been in strategic planning and policy frameworks and management of technical infrastructure. There is evidence that institutional managers and teaching staff understand the issues involved in the use of educational technology for TVET and are developing appropriate institutional strategies. The activity is continuing by strengthening teachers' capacity to use educational media and technology for teaching through instructional design training. New flexible courses which meet the needs of the local labour market are in development. There is evidence that considerable attitudinal change has taken place amongst a critical mass of the staff and it is this which is carrying the institutions forward.

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