PCF6 Keynote speech: Skills Development

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Dr. Caroline Seelig
Chief Executive
The Open Polytechnic of New Zealand

Honorary Chair, Co-Chairs, Programme Chair, distinguished guests and participants, fellow colleagues.

It is a great pleasure to be here today amongst representatives from all over the world who have an important stake in the future of open and distance learning.

I have greatly enjoyed hearing your views and presentations on the innovative work underway in carrying ODL forward and on the many opportunities and challenges facing us.

I am pleased to have been given the opportunity to talk to you about skills development. There is no doubt that governments and institutions around the world have reached a critical stage where we must increase our efforts to find creative solutions to world-wide skills shortages, deficits and challenges.

In addressing the issue of skills development I will be talking specifically about technical and vocational education and training – TVET – and the role of open and flexible learning in this domain.

As you are all too well aware, both TVET and ODL have historically taken a distinct second place when it comes to Government funding and policy focus. This is despite the fact that 80% of job training occurs in TVET and that figure is even higher in developing countries. It is also despite the fact that, as Sir John Daniel has so convincingly and consistently articulated, ODL is the only form of education capable of meeting the vast and growing scale of global education and training needs that lie before us.

But there is good news too. Governments and international agencies are now increasingly recognising the key role TVET plays in delivering both the skills needed for modern economies, whatever their stage of development, and just as importantly, in furthering social inclusion. Phenomena such as globalisation, and the disturbingly high levels of youth unemployment in many parts of the world are adding further impetus to this trend.

There is an increasingly rich body of thinking, debate, theory and practice in TVET and more recently in Open TVET – a process to which CoL has made, and is making, a vital contribution.

There is growing recognition of the need for national and trans-national qualifications frameworks and policy; for portability of skills and qualifications; for better linkages between TVET and the school and higher tertiary sectors, and between training in the formal and informal economies.

There is growing recognition also of the need for increased collaboration and of multi-stakeholder engagement in extending not only access to TVET, but access to TVET that actually works.

All of this, of course, is being given a new inflection and urgency by the complexity and volatility of the global economy.

In New Zealand we have been affected by the global recession to a lesser extent than other western countries. Our unemployment rate is around 6.4%, well below the OECD average of 8.5%. Seventy percent of our population are in employment.
But despite this in the medium term we expect to face increasing skills shortages and re-skilling needs in the face of demographic trends which are driving an increasingly aging workforce.

The sharpest effect of the global recession is that Government spending will be very tightly constrained in the years ahead. The New Zealand Government spent $12.4 billion on education in the 2009-2010 year and it has made clear that there will be no or very minimal increases for tertiary education. The mantra in the New Zealand public service is that we must "do more with less" – a sentiment that is being echoed by governments – and funding agencies - around the world.

Although we are a developed country, New Zealand still has significant numbers of the population that lack the basic language, literacy and numeracy skills they need to do their jobs in a modern and rapidly changing economy.

On the world stage, in its draft Education Strategy for 2020, the World Bank highlights the link between education and people's quality of life. To quote the draft strategy: "Education enhances people's ability to make informed decisions, sustain a livelihood, adopt new technologies, be better parents, cope with shocks, and be responsible citizens and effective stewards of the natural environment."

Successfully increasing participation, however, brings a new set of challenges. Enrolment in higher education worldwide increased five-fold from 28.6 million in 1970 to 152.5 million in 2007. This translates into an average annual increase of 4.6%, with the average number of tertiary students doubling every 15 years. Even so, the scale of unmet demand is huge and growing.

At an international level, therefore, there is now a discernable shift from simply talking about increased access to education and increased funding and inputs to support that increase, to an equal focus on outcomes, effectiveness, and generating more value from the resources available for education and training.

The ongoing and long-term effects of the global financial crisis are only reinforcing that trend.

As the World Bank notes, while there has been real progress in increasing participation in school and post-school education, in many countries access has not been equal across income, gender and other population groups.

Furthermore, while many countries spend a substantial portion of their national income on education, the results from this investment has been, in the Bank's words, "disappointing" in terms of the outcomes delivered.

Many countries face simultaneous challenges of securing basic education for hard-to-reach or disadvantaged groups, expanding access to basic skills training to increase employment opportunities, while providing second-chance and remedial programmes for large numbers of learners who leave school with no qualification. At the same time, all of this must be achieved while ensuring that education is relevant and of good quality.

These challenges are simply too large for single institutions or education sub-sectors or, in many cases, single countries to meet.

Meeting the skills challenges of the future will require new ways of collaborating among all of the relevant players involved in TVET – Government, international agencies, institutions, schools, NGOs, communities, the public and private sectors. Increased collaboration needs to occur at national, regional and trans-national levels.

In these times of fiscal constraint with Governments and funding agencies looking for value for money in their investments, we therefore need to look at how new forms of partnerships and collaboration can cost-effectively increase access to skills development while increasing quality and outcomes.

There are many impressive examples of just this sort of collaborative activity throughout the Commonwealth, including CoL's recent flexible skills development initiatives and other experiences shared during this forum.

One of the reasons I am here is to listen and to learn, and I am acutely aware that some of the most innovative and creative Open TVET initiatives are being pursued by colleagues working in much more challenging contexts than we face in New Zealand.

Speaking from the perspective of an open learning institution, I want to focus on an area where I believe ODL can play a powerful enabling role in skills development networks and collaboration – using flexible models for blended delivery.

ODL, in its own right, must be a vital contributor to meeting the world's education and skills needs. No country can continue to afford to build bricks and mortar institutions to meet the huge growth in learner needs - we have reached a time where open and distance learning must play a pivotal role in helping upskill our citizens.

But ODL can further extend its potential contribution and outreach through variations of the blended model.

In terms of learner outcomes, distance delivery traditionally works best for self-directed, self-motivated learners within mature institutional systems of learning support and quality assurance – conditions that do not apply to vast numbers of the people and contexts requiring improved access to skills development.

The reach of effective distance delivery is further constrained where there is a practical requirement to "learn by doing" and to demonstrate physical competence in a given skill or skills.

Conversely as we have seen, traditional face-to-face teaching setting simply cannot meet the scale of demand we now face for education and training.

Blended delivery brings together – potentially at least – the best of ODL and face-to-face teaching and instruction.

For this reason variants of blended delivery are now increasingly being used in both developed and developing nations, with theory components delivered by distance and practical or face-to-face elements delivered in the classroom, workplace or community.

I am not sure, however, that policymakers – and indeed many practitioners in the TVET community – have fully recognised the true potential of this model to meet the global skills development challenges before us.

From an institutional perspective, I believe that many ODL institutions will be driven by an increasing imperative to find new ways of making their unique capabilities available in collaborative networks, and particularly in the skills development domain.

ODL institutions bring a number of assets to such arrangements. They can deliver high quality learning resources – re-contextualised as needed - to support distributed TVET networks across workplaces, communities, countries, regions.

They have the ability to disaggregate the value chain and recombine its components in customised blends to suit different partners, collaborative arrangements and local contexts.

With their expertise and capability in distributed learning, they can play a key role in designing, supporting and enabling TVET networks – including fit-for-purpose quality assurance systems.

The basic blended model can be deployed in many different variations to suit specific needs and contexts. Schools, institutions, workplaces, community centres or settings can all be utilised as learning environments and to provide support, computers, assessment and practical exercises for learners using self-study resources. When new investment in infrastructure *is* made – the blended model can generate much greater return on that investment.

Mentors, coaches and assessors can be drawn from the community or workplace; or, along with instructors and teachers, from partnered schools or institutions within a network. They, in turn, can be supported by appropriate facilitation and assessment guides and training, and train others to fulfil these roles.

While the use of ICTs is understandably a key focus in many open and blended TVET initiatives underway, the blended model can be deployed to suit whatever local conditions pertain.

In this way it is able to cost-effectively extend the reach, scale and benefits of ODL to wider constituencies and learning environments.

What are some of the factors that can increase the success of blended TVET initiatives?

Clearly this is a large topic that starts at the macro-level with enabling Government policy for flexible TVET delivery and flows through issues such as quality and relevance, system and institutional capability building, strong linkages with employers and industry and so on.

In terms of effective implementation, I believe high quality learning design is crucial. By this I mean not only – or predominantly - the design of learning resources, as important as these are.

I mean the design and management of the overall blended delivery system – including the roles of the complimentary partners and quality assurance across the distributed delivery chain.

Above all, learning design needs to be driven by the needs of the learner and the local context to ensure the appropriate mix and style of self-study resources, delivery media and technology, assessment and face-to-face support.

Youth unemployment, for example, is an issue of major global concern – 44% of the world's unemployed are youth. The scale of this problem can only be addressed by innovative new approaches to blended and flexible TVET delivery.

In its 2007 World Development Report, the World Bank emphasises the greater effectiveness of demand, needs and context-driven learning solutions for youth in developing countries who failed or did not enter formal secondary schooling.

Remedial interventions are more likely to succeed when their delivery takes account of why young people dropped out or did not attend schooling, the challenges young people face to stay in a programme, and how they can be integrated into the formal sector or employment. Such programmes tend to adopt flexible curricula and modes, and take an integrated approach by combining both job and life skills.

These are exactly the types of factors that effective blended learning design incorporates in the content and delivery mix.

Collaboration in this context means the various partners in a blended delivery network or arrangement understanding what they each do best, then working together to design and deliver a solution that adds maximum value from combining their respective strengths.

Let me briefly give some examples of how the Open Polytechnic works with partners in the design and delivery of blended TVET solutions.

Since its inception in 1946, the Open Polytechnic has successfully delivered technical and vocationally orientated courses and qualifications to hundreds of thousands of learners. Somewhat fewer than the huge

numbers taught by our colleagues at the National Open School and IGNOU – but significant in a country of 4.3 million people dispersed across a land mass roughly the same size as the United Kingdom.

As we are often told by international colleagues, we have an unusually wide and diverse course portfolio and student constituency. So diverse, in fact, that leading ODL author and academic Ormond Simpson was prompted to tell us:

"You're a very unusual institution. You teach everything from drainlaying to degrees!"

Ormond was kind enough to add that he thought we did it very well!

Our courses range from basic skills and foundation level, to certificates and higher level qualifications across a very wide range of subjects.

At one end of the spectrum we offer courses in subjects such as urban pest management, construction, agriculture and horticulture, plumbing and gasfitting, basic workplace skills, small business, health and safety, and electrical engineering.

At the other, we offer five degree programmes with majors including accounting, human resource management, environment, management, communications, psychology, information technology, information and library studies, early childhood education and engineering technology.

We work to a rigorous quality regime. All of our courses are quality assured, and we are accredited to deliver programmes by the New Zealand Qualifications Authority - our national qualifications body.

Because all Government owned tertiary education institutions in New Zealand work to a national quality assurance framework, we ensure that all students are taught to a standard that has been agreed with both Government and industry.

This ensures portability of skills and qualifications for our students. Regardless of where they are located in New Zealand, their completed programme of study will be recognised by industry and employers throughout the country.

Our core business is a quite pure form of distance learning based on the classical ODL model. We invest in sophisticated virtual learner support, rather than face-to-face support.

We have, however, evolved this basic model to reach other learner constituencies where some element of contact support is either required for demonstration of competency, or is needed to support learners less likely to succeed in distance-only study.

At the foundation level, we deliver basic work and life skills through a combination of motivational, custom-designed learning materials with facilitated group work provided by partner training organisations. We also provide facilitator guides and training. We choose those organisations because they are close to and understand local communities – for example, Pasifika or Maori learners.

In an earlier variant of this approach, we delivered a work and life skills programme nationally to thousands of people with low or no prior educational achievement, a significant proportion of whom were unemployed. Again, the self study learning resources were designed to be highly motivational and engage

the learners in a process of thinking about their own life situation and direction, as well as providing basic employment skills.

The resources were supplemented by roving coaches employed by local community organisations who visited the learners in their own homes to provide encouragement and support and to conduct the learning assessments.

We have also used this method successfully for foundation level programmes on financial and home ownership skills.

Another variant of this approach was used when our colleagues at CoL contracted the Open Polytechnic to design open educational resources in foundation level trades skills for use in small Pacific nations.

The OERs were developed in conjunction with the Pacific Association of Technical and Vocational Education and Training.

The learning design focused closely on the needs and constraints of the local context. Printed resources were the only viable delivery media. These were appropriately contextualised and produced in easy-to-print form, with a supplementary DVD where this could be used, along with student and tutor guides.

Given Pasifika peoples' cultural preference for group-based learning, the materials were designed for blended delivery, with local Pasifika trades people using the tutor guides to help support students.

To date these materials have been used in Kiribati, Nauru, Niue, Tuvalu, Fiji and now in Zimbabwe.

And we have recently completed another project for CoL on literacy and numeracy materials to be used to support the basic trades courses.

The Open Polytechnic also has arrangements with some smaller, provincial polytechnics in New Zealand to deliver our business and early childhood education degree, and our diplomas in architectural technology, construction management and quantity surveying to their students.

The student enrols through us but are able to access the resources of their local providers during their studies.

Internationally, our partnership with the University of Southern Queensland allows our students to enrol in their engineering technology degree. Students are supported by Open Polytechnic tutors, but the learning materials are managed by USQ, and students travel to Australia for any on-site practicums that are required.

At another level, the Open Polytechnic also works extensively with industry in various blended delivery TVET arrangements, combining our distance study with workplace learning and assessment provided by industry, and face-to-face sessions using contact providers.

A key imperative for skills development is ensuring that education programmes deliver the core skills employers and industry need.

In New Zealand Industry Training Organisations, or ITOs, play a key role role in this context, designing the industry training framework, enrolling the industry trainees and coordinating a system of workplace-based competency assessment.

For those we work with, which is around half of New Zealand's ITOs, the Open Polytechnic provides mainly the theory component of training through distance delivery.

This partnership approach helps ensure that students receive a consistent learning experience wherever they are in New Zealand.

As part of the ITO model, students complete their theory with us while learning on the job with their employer.

Part of the qualification completion process involves students completing workplace assessments.

Quality standards are maintained by ensuring assessors are appropriately trained and qualified to an acceptable standard. They are provided with clear and explicit outcomes for the course and assessments so that they know what standard of performance is required of the students they are assessing.

They are also provided with robust assessments and a marking guide.

All assessment methods and the marking guide are moderated, as are samples of student's performances. Depending on the type of assessment, the assessor may observe the student carrying out the activity, or if it is a report written by the student, seek verification from both the student and their employer that it is the student's own work.

In an area like pharmacy technician training, the employer - the pharmacist - is closely involved in the training process. They are tasked with mentoring the learner as they work through the learning materials and where necessary, verifying the skills of the learner.

Aside from tutor support and marking of assessments, the Open Polytechnic arranges for assessors to visit the learner in the workplace to undertake competency assessments.

Where learners need training in specific skills which cannot be delivered in the workplace, such as learning how to compound medications, the Open Polytechnic runs workshops over a 2 day period to deliver intensive training.

Within the basic blended model, therefore, we are able to operate in a variety of flexible ways – from simply providing the theory component, to designing and coordinating the whole delivery and assessment network.

Looking to the future, we need to think about how we can take this basic model and deploy it in more widely TVET contexts both within and outside of formal industry training, and both on and offshore.

This partly involves thinking hard about TVET learning design - about how we can make flexible skills solutions as context, work and learner-centred and effective as possible.

Industry training generally in New Zealand has lower course completions than academic study and there is a strong Government drive for improved outcomes.

In terms of blended delivery, there is huge scope to employ more technology-enabled learning to increase the engagement of workforce trainees and of young people and second-chance learners requiring basic work and life skills; and at the same increase skills and learning outcomes.

Virtual simulations and animations, for example, are much more likely to suit the learning styles and aptitudes of many trainees and second chance learners – youth or adult, as well as making the learning experience more effective.

Mobile phones can be used for motivation, support and in situ assessments for trainees in the field or mobile work situations, as well as the workplace.

Larger screen mobile devices, such as ipads, further increase the potential for learning literally in any time and place.

Electronic books will radically change the economics and logistics of traditional book publishing and distribution. Books or texts can now be made available instantly and more cheaply in nearly any location.

The use of video uploaded to institution controlled websites or to free networking sites such as You Tube can help explain complex theories or show difficult to explain concepts.

Institution owned websites can also host software simulation packages for courses to provide real-time learning.

Students can use the simulation online to actually see how an application is used and to interact with the software to complete set tasks.

Software such as Adobe Presenter can combine a slideshow with either audio or video narration – helping to simulate a classroom environment – but one that students can access when it suits them either on computer or smart phones.

New technologies in ODL are also allowing us to create virtual classrooms, establishing online communities of learning, and help ease the burden of studying in isolation.

All of this techo-potential, of course, needs to be set against the continuing and severe challenge posed by the Digital Divide – both within and between nations.

But here I return to my earlier point about the centrality of learning design. The current and emerging trends in technology-enabled learning do not replace more traditional distance education media or modes, or indeed face-to-face support or instruction where this is what is needed to ensure good learning outcomes.

They simply – and greatly – expand the array of tools available for learning designers when they construct context and learner-centred solutions. The question is always which mix of media will best meet the needs of learners where they live and work.

I do believe that this expanded set of tools has enormous potential for extending the reach and effectiveness of blended TVET delivery.

I want to conclude by returning to the theme of collaboration and to briefly touch on some illustrative examples of current technology-enabled learning networks.

These are examples of ways eLearning networks can provide institutions with access to improved resources and cost efficiencies, while at the same time creating more opportunities for geographically dispersed students to access tertiary education.

As I've said earlier, I believe collaboration will be a central feature of deploying ODL in blended and other networks to meet the global skills challenges before us.

We are seeing an increasing number of national education organisations collaborating to maximise the benefits of sharing e-learning resources - from development to implementation.

For many of these endeavours, the projects have similar components as they work towards e-learning infrastructure and the delivery of quality online courses.

These key components include developing staff, building leaders, increasing choice and support for learners, and creating content.

The first model I would like to talk about is the 'single network with autonomous members'. Campus Saskatchewan in Canada uses this model with a network that allows 14 different tertiary institutions to collaborate on inter-institutional initiatives to achieve shared goals and priorities for the use of technology enabled learning.

The main ways the members work together include a shared website, shared resource development, cross crediting courses and shared services – especially offering various forms of face-to-face support for online courses offered by other members.

This model can be member-led or government owned, but in all cases the government acts as a funder and strategic partner in its ongoing success.

Another model is the 'network of informal networks'. The Finnish Virtual Polytechnic and Finnish Virtual University both use this model.

Members of this type of model are institutions, but the networks are networks of staff across those institutions. Members' staff use technology to work together on specific projects related to a subject or topic.

This type of network relies on self organising communities of practice, with some central funding to support agreed goals.

Both the Finnish institutions using this model have a central team that supports the governance and management groups of the virtual collaboration. These networks seek the outcomes of increased choice for learners by improving student mobility between providers and supporting them with online courses.

A third model is the 'network of formal networks', and the Australian Flexible Learning Framework is a good example of this.

The Framework is primarily for funding bodies and aims to provide the Australian VET system with the essential e-learning infrastructure and expertise needed to respond to the challenges of today's economy and the training needs of Australian businesses and workers.

The funding bodies represent large numbers of providers that work together in various ways across the Australian states. They work at a high level to coordinate both institutional and system-wide eLearning development.

Another model is the 'network funded support organisation'. This type of network uses a separate organisation or organisational unit to provide high quality or cost effective eLearning resources.

The University of London International Programmes, which until recently was known as the University's External System, is an example of this approach. The university is made up of 19 self-governing colleges all of which are accredited to offer University of London degrees.

The International Programmes system manages the University's distance learning provision and serves around 40,000 students in 180 countries. It offers design and development support and a central administrative system for the individual colleges.

There are, of course, many other examples of collaborative networks including here in India and in other parts of the Commonwealth, alongside CoL's own ground-breaking Virtual University for Small States of the Commonwealth (VUSSC) at the trans-national level.

The good thing is that collaborations and networks are happening and pointing us towards the future.

I believe one of the most interesting and potentially exciting developments in the years ahead will be the way networked approaches continue to evolve and to encompass a wider range of industry, private sector, community and other stakeholders in delivering effective TVET learning solutions.

Certainly my own institution is committed to participating in, enabling and furthering such approaches.

Collaboration is the only way Governments and nations can meet the huge skills development challenges before us, and open and distance learning will be a fundamental contributor to that process.

Thank you.