Adult Education and Lifelong Learning in the Asian Century

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Book review

From the Editor's desk

Tony Brown

Two years ago Australia's Prime Minister Julia Gillard launched the White Paper *Australia in the Asian Century* to much fanfare. It forecast 'almost all our economy and society' will be affected by the dramatic changes taking place in Asia, 'as profound as any that have defined Australia throughout our history'.

The Asian Development Bank estimates that the region will account for over half of global output by the middle of this century and an additional 3 billion Asian people could enjoy living standards similar to those in Europe today.

Much of the attention was limited to a one-dimensional view of these

changes and that was how they related to trade opportunities. While Australians holiday more in Asia than previous generations this has not translated into more widespread learning about the cultures, histories, politics and languages of the region. The White Paper did call for a better-educated, Asia-savvy workforce and stressed the need to nurture innovation.

Edmund Phelps the Nobel prize-winning economist noted that one response in the West to the rising competition from countries like China and India has been to try to increase the number of students in science, technology, engineering and so on. But Phelps argues that this misses something vital, claiming that modern economies also require populations immersed in literature, philosophy and history. Studying the humanities 'will do more than provide young people with a narrow set of skills; it will shape their perceptions, ambitions, and capabilities in new and invigorating ways'.

Unlike trade and business, education has remained more rooted in its geographic place. Certainly there is an increased flow of university students from one country to another across the region but many education policies and practices continue to be overly-focused inward on the local and national or the narrowly economic rather than encouraging a broader view. How can education help to 'invigorate' to innovate as Phelps suggests?

What is today commonly understood as Lifelong Learning has its roots from much earlier times. In the early twentieth century Progressive educators in America such as Eduard Lindeman wrote that 'learning is life'. Basil Yeaxlee in England in 1929 made the case for 'lifelong education' describing its social reason as being for 'democracy and responsibility'. Following the carnage of World War 1 UK official reports advocated a new approach to learning beyond school, and in Europe long held views for non-formal learning were embodied in the European civil society organisations such as the Folk High Schools and the Workers Educational Associations (WEA).

The idea was revived and presented as new in Europe in the 1970s and although its adoption was stop-start, it influenced European and UK policies through to the beginning of the twenty-first century, although notably not in Australia. By the turn of this century lifelong

learning had essentially been harnessed to governments' economic and competitiveness agendas and the saddle-bag of the humanist-inspired approach of widening opportunities for those previously excluded from education and encouraging learning for living and citizenship had been abandoned.

The interest in lifelong learning in Asia followed a little later than in Europe but arguably has continued beyond its waning influence there. While adult education departments are closed in many Western universities and the State ceases to fund adult education in community settings, institutional support for adult and lifelong learning continues in Asian centres. These can be seen in for example, the Centre for Lifelong Learning Research and Development (CLLRD) in the Hong Kong Institute of Education; the Lifelong Learning Research Center at Seoul National University; Singapore's Institute of Adult Learning (IAL). Elsewhere Taiwan introduced its Lifelong Learning Act in 2002.

'Asia' is a richly varied continuum. There are big differences between countries, which means a simple understanding of 'Asia' as a single entity means mis-understanding the issues, challenges and dynamics of the region. At one end are the advanced economies of Japan, South Korea, Australia, New Zealand, Singapore, Taiwan, Hong Kong, China & India, followed by a second tier including Malaysia, Philippines, Indonesia, Thailand, Pakistan, and through to Vietnam, Laos, Cambodia, Nepal, Burma, PNG, Timor Leste, and so on.

So too there are also huge differences within countries. For instance, while Shanghai rates in the very top level in the world in relation to educational investment and outcomes and other social indicators, many parts of rural China have more in common with African levels and standards of living. This is one reason why China has also experienced the massive wave of internal migration from the country to the cities over the past fifteen years - the largest movement of people in human history.

Rapid economic development for some countries, and striving for rapid economic development by others inevitably results in social pressures. Movements of people across seas and within countries; the ability to provide housing, transport, clean water and energy; extending the rights of citizens and workers; environmental pressures; and widening

economic and wealth inequality, from which flows inequalities around health, access to education and employment and hence lower living standards, are difficult issues in the West and are evident too in Asia. Education can be a means to discuss these issues, consider responses, discover answers, but more importantly help people learn for themselves. Will adult and lifelong learning contribute to and shape the changes taking place? What opportunities and challenges does this economic growth present for adult educators, policy and research in the field of lifelong learning?

Earlier this year Andreas Fejes and Erik Nylander analysed the scholarly articles published in three leading adult education journals. They were all English language journals from the USA, the UK and Australia and they are widely accepted as being among the leading international journals in our field. They discovered that overwhelmingly the authors being published in those journals came from four countries, with Canada rounding out the number. Not only were these countries providing the bulk of authors the number of cited publications were also, perhaps not surprisingly, from those same countries. This raises important questions for all of us, but particularly for editors and boards of Journals, that given the vast range of adult education and learning practices and traditions across the globe, how do we ensure that adult education research breaks out of not only mono-lingualism, but also includes the experiences and practices from countries outside the centre?

Our collective knowledge of what adult education practice and research is taking place across our region, and the traditions that inform them, is not as developed as it could be. Undoubtedly there are many examples of good partnership work taking place between practitioners and researchers from different places across Asia. Some of those are evidenced in the articles that follow. However these remain exceptions and because of that we miss out on the interchange, and the knowing and learning arising from it, and so we must find ways to foster the knowledge and experience of our colleagues' work throughout our region.

This special issue is an attempt in that direction. It carries papers discussing issues of professional and workplace learning, apprenticeship

systems, e-learning and the self-education of adult educators from across five major Asian countries – China, Malaysia, India, Taiwan and Singapore.

Hongxia Shan reports that China has had a tradition of providing continuous training and educational opportunities through and beyond workplaces. Illustrating this she investigates the contemporary experience of a small group of professional engineers and their continuous learning, and the training policies of the three different types of enterprises in which they work. It traces the changing institutional relations that are shaping the companies' investments in training and the engineers' motivations for learning. The paper shows the pervasive nature of the state's regulation framework but also the interest of the engineers to 'connect' with the professional regulation systems in the West.

In a similar vein **Amat Taap Manshor, Siong Choy Chong** and **Roslyn Cameron** are interested in licensing and vocational / professional systems of accreditation and learning. The emergence of national qualifications framework systems has spread across Asia in recent years and in this the Australian system has been a major reference point. Their paper though is focused on the new qualifications structure in the Malaysian finance services industry. They argue that the Finance Qualifications Structure (FQS) will help develop human capital in the finance industry with implications extending beyond Malaysia to other Asian countries. The Finance Accreditation Agency (FAA) and its role in consulting with industry, and recognition of existing competencies and prior learning that are able to facilitate ongoing learning, it is argued provide a case study worth examining.

India's apprenticeship system and its potential for creating greater equity and social justice is the subject of **Erica Smith, Ros Brennan Kemmis**, and **Paul Comyn's** paper. They report on a research project commissioned by the International Labour Organisation (ILO) and the World Bank, noting that India's apprenticeship system is very small given the overall population of the country. Examining how to expand and update the system so that the supply of skills could be improved to support the rapidly expanding economy inspired the research. The paper locates India's system in relation to other countries systems

before presenting and analysing options for expansion and the equity and social justice implications that flow from them.

The focus of the paper by **Hsiu-Ying Chung, Gwo-Guang Lee**, and **Shih-Hwa Liu** from the National Taiwan University of Science and Technology is the Taiwan government's considerable investment in constructing e-government learning platforms and the digital courses developed to provide all public servants with on-the-job training to support the introduction. Using a quantitative based research method the authors surveyed public servants about their experience and created a model to discuss the barriers and policies shaping e-learning behavior. With the growing emphasis on using online technology to deliver government services, how users, including both government employees but also end-users, learn how to make the best use of them and what barriers or policies inhibit engagement could be very informative.

How do individuals become and be adult educators? This is the essential question informing **Peter Rushbrook, Annie Karmel** and **Helen Bound's** paper. Their context is the Singaporean adult education system where facilitators are largely mature-aged, second career workers, working as 'freelancers' through small training providers delivering workplace and continuing education. Singapore too has adopted a competency-based vocational qualification system drawing on existing Anglo systems but adapting them to the local environment. In this context how is professional identity developed? Using a socio-cultural approach the authors draw on the literature and a small number of personal stories to consider this question of identity.

The issue concludes with two book reviews that were both published this year. **Gary Chitty** reviews Marion Bowl's book *Adult Education in Changing Times*, which looks at the literature, policy and research into the careers of adult educators around the world but mostly in Great Britain and New Zealand. **Mike Brown** reviews Helena Worthen's *What Did You Learn at Work Today*? Helena recently retired from her position at the University of Illinois as an educator, and labor activist, and collated her research on work and workers to write this book.

This issue also includes two other notable pieces. Firstly, a Call for Papers for a Special Issue on *Public Pedagogies*, which will be guest edited by **Karen Charman** and **Maureen Ryan**, follows this

Editorial. The Special Issue will be the November issue in 2015 and details can be found in the notice. Secondly, an acknowledgement of those colleagues who contributed to AJAL throughout 2014 by providing the blind peer-reviewing that is essential to journals like this. The list of reviewers can be found preceding the first paper.

Finally my thanks go to the authors, reviewers, readers and editorial board members, and to the work this year of Linda Thompson and Jacqui Ralley in the ALA Office for their keen eye for style, layout and proofing, and management. AJAL remains one of the very few refereed print Journals that rely on the efforts of members in the publication process. The Journal is not produced through one of the large academic publishing houses and aims to remain close as possible to the field. Enjoy the break over Christmas and the New Year and we'll return with Volume 55 in 2015.

Tony Brown

References

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Phelps, E. (2014) 'Teaching Economic Dynamism' in Project Syndicate , 2 September, *http://www.project-syndicate.org/commentary/edmund-s--phelps-argues-that-restoring-humanities-education-is-the-key-to-building-innovative-economies*

Call for papers for a special issue on

Public Pedagogies

Guest Editors: Dr. Karen Charman and Professor Maureen Ryan

Public Pedagogies is a richly contested term. Everyday somewhere someone is acting to ***create*** the public sphere. This might be a class in a neighborhood house, a community group focusing on an issue of concern, a public art project, a museum planning an exhibition, the daily populating of a public library, a social media site or an exchange of ideas in the street. Pedagogy is relational and it is through interaction that the intangible and fragile space of learning can occur.

In the last fifteen years there has been a significant increase in the theorization of public pedagogies. This work has come from writers from diverse backgrounds and contexts (Burdick; Sandlin; O'Malley; Giroux; Ellsworth). Further, advocates of a shared community argue that neo-liberalism has seen the erosion of the 'public' - how then might the concept of the public/s be understood?

This special issue's concern is to investigate what spaces create and enact public pedagogies, offers the prospect to speak back to the confines of the neo-liberal discourse and to do so from an Australian context.

Articles are invited on any of the diverse areas of what is now termed public pedagogies:

• The problematisation of private and public in pedagogy
• Contribution to the theorization of what is pedagogy
• What is the nexus between the terms public and pedagogy?
• Contribution to the theoretical frames for reading public pedagogies
• New and contested sites of public pedagogies

Notes for Prospective Authors

Submissions should be between 4,000 and 6,500 words and conform to the AJAL Style, details of which can be found at www.ajal.net.au

Submissions must be made online at www.ajal.net.au by 30 May 2015 for publication in November-December 2015.

Further information about the special issue can be obtained by contacting Karen Charman at charmankaren@gmail.com

People who have reviewed for AJAL in 2014

Scholarly journals depend on the contributions and support of referees in ensuring their ongoing quality. Without the generosity, wisdom, and rigour of our reviewers, the Australian Journal of Adult Learning could not exist. I would like to take this opportunity to acknowledge and thank all those who have given of their time and expertise over the year.

Name	Institution
Armstrong, Hilary	Institute of Executive Coaching and Leadership (ICEL)
Arthur, Leonie	University of Western Sydney (UWS)
Asmar, Christine	University of Melbourne
Aubusson, Peter	University of Technology, Sydney (UTS)
Ayres, Paul	University of New South Wales (UNSW)
Beckett, David	University of Melbourne
Black, Stephen	University of Technology, Sydney (UTS)
Boughton, Bob	University of New England (UNE)
Brennan, Barrie	University of New England (UNE)
Brown, Margaret	AgResearch, New Zealand
Choy, Sarojni	Griffith University
Connell, Jane	Cape Breton University, Canada
Davies, Lisa	University of South Australia
Dzubinski, Leanne	Biola University, California, USA
Edwards, Frances	Waikato University, New Zealand
Frawley, Patsie	LaTrobe University
Hajela, Ruchi	University of Oxford, UK
Helland, Havard	University College, Oslo, Norway
Hodge, Stephen	Griffith University
Hof, Christiane	Goethe Universität Frankfurt, Germany
Holland, Bronwyn	University of Technology, Sydney (UTS)
Hopwood, Nick	University of Technology, Sydney (UTS)
John, Vaughn	University of KwaZulu-Natal, South Africa

Joseph, Cynthia	Monash University
Kearney, Matthew	University of Technology, Sydney (UTS)
Kenyathulla, Husaina Banu	University of Malaya, Malaysia
Lavender, Peter	National Institute of Adult Continuing Education (NIACE) UK
Lawless, Ann	Charles Sturt University (CSU)
Malkki, Kaisu	University of Helsinki, Finland
Mallett, Cliff	University of Queensland
Malloch, Margaret	Victoria University, Australia
Manidis, Marie	University of Technology, Sydney (UTS)
Mayer, Connie	York University, Canada
McIntyre, John	University of Canberra
Milic, Sasa	University of Montenegro, Montenegro
Ollis, Tracey	Deakin University
Pamphilon, Barbara	University of Canberra
Pekrun, Reinhard	Ludwig-Maximilians-Universität Münich, Germany
Reich, Ann	University of Technology, Sydney (UTS)
Rushbrook, Peter	Institute of Adult Learning (IAL), Singapore
Sarkar, Sandip	Institute for Human Development, India
Sellar, Sam	University of Queensland
Sherwood, Juanita	University of Technology, Sydney (UTS)
Slaughter, Yvette	University of Melbourne
Snell, Darryn	RMIT University
Smith, Jeremy	Federation University Australia
Stehlik, Tom	University of South Australia
Toner, Phil	University of Sydney
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Wheeler, Leone	RMIT University
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Willis, Peter	University of South Australia
Yorks, Lyle	Teachers College, Columbia University, USA
Zschocke, Karen	RWTH Aachen University, Germany

Continuous learning and its social organisation for engineers:
An exploratory study in China

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Continuous learning for professionals such as engineers has undergone sea changes around the world in the past few decades. This paper explores some of these changes in China. It starts by examining the learning experiences of five engineers and the training policies in three companies with different types of ownership. It shows three major learning pathways for engineers: shadowing, title and license-related learning, and further education. Associated with these learning pathways are issues such as differential training support from companies, tensions between the pursuit for professional standardization and experiential knowing, and gendered streaming. The paper further traces the changing institutional relations that work in concert to shape companies' investments in training and engineers' motivations for learning. Specifically, it maps the traditional vocational title system, the newly adopted practice licensure systems, as well as governmental sectoral regulations. The study pinpoints not only the pervasive power of state regulation, but also the profession's desire for internationalization or to 'connect rails' with the engineering educational and professional regulation systems in the West. Within

this context, continuous development has increasingly become a professional mandate for engineers in China. It has also given rise to issues such as commodification of professional licences.

Keywords: *Continuous learning, professional regulation, workplace training, internationalization, institutional ethnography, engineers.*

Introduction

The career lives of professionals such as engineers have experienced marked transformation in the past four decades. Previously, professionals in many countries enjoyed a clearly defined career path, after a fixed period of school-based training. Continuous training and learning was considered an add-on that individuals might choose to undertake or not (Guest, 2006). Today, with the development of science and technology, the shift from permanent to temporary and contract-based employment, and the globalization of workforce and business, continuous learning and development of professionals has become a topic of significance for not only individual professionals, but also other stakeholders such as businesses, educational institutions, professional associations, and regulators (Collins, Berivudes, Youngblood, & Pazos, 2004; Ferguson, 1998; Guest, 2006). Increasingly, it has been recognised that institutional context needs to be strengthened to encourage continuous learning. Special attention has been paid to building learning organisations (Lorriman, 1997; Raiden & Dainty, 2006), increasing training program flexibility and responsiveness to the market, distributing the financial responsibility of professional development, and accreditation of professional learning (Guest, 2006).

While the literature on continuous learning and training for engineers is abundant, little has been written in English about developments in China. This is an unfortunate oversight, given that China has undergone drastic social changes in the past few decades. More importantly, according to official figures, China graduates 1,000,000 new engineers every year (ParisTech, 2013). A review of the Chinese literature shows that the concept of continuous education has been circulating in China since the First World Conference on Continuing Engineering Education in 1979 (Liu & Sun, 2002). It has since been

considered a constitutive part of engineering education. Zuo and Jiang (2003), for instance, divide engineering training/education into three stages: school-based education, which cultivates the consciousness of engineers; firm-based training for graduates to adapt to the workplace; and continuous education for engineers to accumulate specialized knowledge and practice-based experiences. L. Zhang (2012) generates a typology of continuing education according to training/education providers: 1) company-funded colleges and training centres set up by conglomerates or international enterprises; 2) professional training programs provided through public institutions; and 3) continuous education programs and courses delivered through universities. Some large companies fund colleges and training centres to impart companies' ideals and accumulated experiences to students, who are typically hired by the companies upon graduation. Public institutions, such as state departments and private training institutions, also provide short-term training on new skills and technology and licensure-related training. Universities are an additional site for continuing education. After a period of time at work, individuals may choose to go back to universities. Some companies also sponsor selected engineering practitioners to pursue postgraduate studies.

Curiously, L. Zhang's typology does not consider the role of the workplace in continuing education. W. Zhang (2001) defines workplace training as short-term training provided in order to update engineers with practical and innovative skills and knowledge. However, the kind of continuous learning opportunities fostered through workplaces are more than periodic trainings at work. For example, in the hydro sector, which is state-owned, Y. Zhang (2012) documents a diversity of training programs. Among them, orientation training typically focuses on company cultures, company regulations, and safety issues in the production process. Shadowing is another common form of training. When a new graduate starts working, an experienced engineer will act as a mentor (*shifu*) for him/her. Through shadowing the *shifu,* new graduates learn about the workplace, the workflow, and technical requirements at work. Various forms of on-the-job training also exist, such as skill competitions and team-based knowledge exchange. Evaluation and testing are often conducted to reinforce the effects of training for all. Additionally, employees are also encouraged to conduct self-study. Guidance and resources are reportedly provided to

employees to help them form a learning plan for themselves.

While increasing attention has been paid to continuous training and education for engineers in China, existing literature remains descriptive and patchy. Studies have rarely attended closely to the learning practices engaged by individuals; neither have they addressed the changing social, economic, and professional contexts within which continuous training and educational opportunities are produced for engineering practitioners. This paper is an effort to address the void in the existing literature. Rooted in the conception that learning is a socially organised practice, it not only examines the continuous learning pathways of engineers in China, but also maps the changing institutional processes that produce these pathways. Next in the paper, I introduce what I mean by learning as a socially organised practice. Thereafter, I report the research, including research methods and research sites. I then devote two sections to research findings; the first focuses on the continuing learning pathways of engineers, and the second traces the professional and sectoral regulatory practices in the engineering profession. I end the paper with a discussion of the research findings.

Continuous learning as a socially organised practice

Traditionally, learning is considered a cognitive and individualized practice. Drawing on sociocultural perspectives on learning (Fenwick, 2001; Vygotsky, 1978), and institutional ethnography (Ng, 1995, 2002; Smith, 1987, 1990, 2005), I propose that learning, particularly continuous learning for adults, is a socially organised practice. The sociocultural perspectives, rooted in Marxist dialectical and historical materialism, posit that learning is an inter-relational process; we learn through being a part of social activities where we interact with others through the mediation of tools such as language, texts, and technology. The social environment is thus more than the context of learning; it is believed to "bear with [it] the motives and goals of [our] activity, its means, and modes" (Leont'ev, 1978: 47-48). Given the philosophical premise, sociocultural learning research takes social activities and practices as the unit of analysis. For example, Lave and Wenger have studied learning as participatory process in communities of practice, and proposed that individual identity is a formative aspect of learning (Wenger, 1998). In the same vein, Billet (2004) has advanced that

workplace learning is synonymous with workplace participation. Another sophisticated construct is the activity triangle or activity system proposed by Engeström (1991, 1999) that directs researchers' attention to the interrelations of subject, object, and mediators of learning, and to the rules, community, contradictions, and division of labour that relates learning to the higher order processes of production, consumption, and distribution.

Institutional ethnography (IE), also premised on Marxist materialism, is a feminist approach that starts with the experiences of grassroots people and proceeds to unravel the social relations, or extended courses of actions that shape experiences on the ground (Smith, 1987, 2005). It complements the sociocultural perspective in that it focuses on the administrative and managerial procedures and the sequences of work done across sites to manage and control in a textually mediated world. To map these social relations, IE makes particular use of language and texts. Rather than seeing them as simply representational of meanings, IE approaches them as "activities organizing other activities" (Smith, 2005: 79). Language, Smith writes, "creates a new dimension of organization" (2005: 82). In other words, in highly textualized societies, language, particularly that of written and replicable texts such as policies and practice documents, operates as a social actor that generates diverse courses of action.

By bringing sociocultural and IE perspectives together, I have come to see learning as an inter-relational process that is embedded in intersecting courses of social actions that order and organise what knowledge we value, and how we navigate the complexity of work and life. Within this conception, an investigation of learning starts with individuals' experiences, perceptions, and identifications. It identifies and follows up with the mediators of learning, such as texts. Ultimately, it maps the extended social happenings across settings, such as workplaces and the state apparatuses that refashion migrants' subjectivities and learning practices.

Methods of inquiry

To explore the continuous learning experiences and pathways for engineering practitioners in China, a qualitative study[1] was conducted

between October and November 2011 in Beijing, Wuhan, and Shanghai. Through personal networks, I accessed three engineering companies, one in each city. All three companies I visited operated in the construction sector, although in different capacities: *Sunrise2* in Beijing is a large state-owned engineering, construction, and procurement (ECP) company, *Huali* in Wuhan is a private design institute, and *Alliances* an international consulting company in Shanghai. Depending on the extent of access each company granted me, I used different research methods at each site. *Sunrise* provided me maximal access. I was able to conduct a one-week, on-site observation of the work of two human resources (HR) workers and another week-long observation of two engineers at work. I interviewed all four people I observed. Additionally, I interviewed another engineer in the company about his learning, working and training experiences and a key informant about the organisation of the industry. I had access to company's HR training plans and training materials.

At *Huali,* I interviewed the HR director, and an architect. I was provided access to *Huali's* training manuals and selected HR policies. In the city of Wuhan, I also interviewed one engineer about his continuous learning experiences and a key informant about the licensure and continuous education policies in China. At *Alliances*, I interviewed two HR managers who shared with me selected HR policy and training documents from the company. All interviews except for one were audio taped and transcribed into Chinese verbatim. For the one that declined taping, I took extensive interview notes. Interview data and the training policies and documents collected were analyzed to first identify the continuous learning opportunities the three companies encourage their employees to undertake. Data were then used to identify the social relations extending beyond the workplace, which point to the domains of professional and sector regulation. Related policies and practices were then collected and analyzed to flesh out the changing institutional practices shaping the continuous learning and training opportunities for engineers in China. All quotations used for this paper were translated into English by me. To enhance the reliability of the translation, I also translated the English back to Chinese to compare with the original documents. For reasons of credibility, I leave the Chinese titles of the policy documents in the text and retain the original Chinese references after their translation in the reference section.

At the beginning of all interviews, the research participants were all curious about the study and me. Once I started explaining that I would undertake measures to protect, as much as possible, their anonymity, some became uncomfortable. I suspect that some of them did not end up saying no to the study because I reached them through common friends or through my family acquaintances who happened to be the managerial staff of the companies where they worked. When I offered to send them the interview notes and transcripts, all responded that it was not necessary. Although they all gave me the oral consent to the interviews, which legitimizes my study according to academic standards in the West, I sensed that I was walking on some ambivalent ethical lines. As such, in this paper, I took extra caution in the report of the findings to reduce the likelihood that the participants would be recognized by people in their own companies. As much as possible, I use generic and aggregate terms to report the findings. Unless absolutely necessary, I do not use demographically identifiable information such as gender, and disassociate the research participants from the companies for which they worked. For the organisations involved in the study, I also leave out the specificities that may make them easily identifiable.

Continuous learning pathways of engineers

Three of the five engineers were of senior level, one middle level, and one junior level. They reported various learning opportunities and endeavours, which can be summarised as shadowing, vocational title and licence related learning, and further higher education. Four related that shadowing was formally offered to them when they first joined the companies as new graduates; one reported informal shadowing when he started his practice abroad. All five engineers/architects except for one had vocational titles and professional practice licences. Some acquired their licences through self-study, and others attended relevant training. All four received reimbursement and incentives from their companies to go for licensure exams and/or training. One participant was sent by his company for postgraduate studies and had since returned to serve the company. One was planning to enrol in postgraduate studies on her own to further her career. The kinds of continuous learning pathways that were related in the study echo what has been reported in the literature (see Y. Zhang, 2012; L. Zhang, 2012). Their learning experiences also point to some complex issues that have been rarely discussed in the

literature. These are: varied support for continuous learning across different companies; contradictions that engineering practitioners may experience between standardization and experiential learning; and gender differences that mark their learning and career paths.

Varied support for continuous learning from different companies

Continuous learning and training opportunities offered through the three companies range from "abundant" at *Sunrise*, and targeted and selected in *Huali*, to self-directed in *Alliances*. They all offer orientation sessions to the rules of their respective companies, but the support they offered to new graduates varied greatly. *Sunrise,* as a state-owned company, has a long history of hiring and supporting new graduates. For instance, one research participant from *Sunrise* said:

> Our company is a state-owned company with an excellent tradition in terms of training. For newly recruited graduate students, the company offers shadowing as a way of training. Depending on your profile shown on your resume, the company or the department for which you work will find a teacher for you. In other words, one of your colleagues or leaders would become your Shifu. You would shadow that person for a year. S/he will instruct you how to get thing done in practice, evaluate your analysis, and give you opportunities to practise.

Participants agreed that shadowing, or guided participation in the workplace, is an effective way to learn to become an engineering practitioner (e.g., Billet, 2004; Wenger, 1998). Yet, shadowing is not provided across all companies. It was not until a year before the study that *Huali* started recruiting new graduates and providing shadowing arrangements for them. *Alliances,* as an international company, does not hire new graduates. Nor does it have a shadowing system. People recruited by the company are often experienced engineering practitioners and with high-level English skills. Instead of relying on a shadowing system, *Alliances* uses a buddy system to introduce new recruits to the company, which acquaints them with "where to look for resources, and where to get lunch". What figures significantly in *Alliance*'s new recruit training is a virtual college that is designed by the headquarters and used across the globe. The virtual college is a tool for

employees to conduct self-assessment as to whether they have the skills required for their targeted positions, and if not, what they need to learn to reach their career goals. To some extent, if shadowing is a way for companies to introduce individuals to localized communities of practice (Wenger, 1998), the virtual college helps centralize control over knowing and doing in distributed organisation (see Farrell, 2004). In any case, since private, especially international, companies pay much higher salaries than state-owned companies, to a certain extent, state-owned engineering companies may serve as training bases for privately-owned companies.

Contradiction between professional standardization and experiential learning

Vocational titles and practice licences are practices introduced by the state to ensure engineering practitioners are "up to professional standards" (one HR participant). Related exams are used to introduce and maintain standards within the engineering community. An examination of the exam-related experiences of the engineers shows some interesting tensions between professional rules and standards and the empirical learning and knowing that engineers have acquired in practice. Below, the conversation between me and a participant engineer pinpoints the issue:

> Researcher: I heard that the exams were difficult.
>
> Participant: not really;
>
> Researcher: but the passing rate is really low.
>
> Participant: …How to put this… many people are really experienced in the field, but the construction process may not abide by standards… over time, people have developed certain habitus and established certain practices, which may as well differ from what is prescribed in the book. When it comes to exams, they test you on standards in the book. When you respond in exams with what you do in practice, you of course fail … people who pass the exams are those who keep on reading and who also have some experiences….
>
> Researcher: Can you give an example of the difference?
>
> Participant: for instance this cup, the designer says that it needs to be this thick (gesture to exaggerate thickness), in practice, you

know that it needs only to be this thick (gesture to exaggerate thinness) not to break.

Clearly, professional exams, in the case above, licensure related exams are to introduce professional rules and standards into the practice community, which may come into clashes with experiential learning and knowing of the local communities of practice. Such contradiction and clashes could potentially become points of productive conversations giving rise to new practices (Engeström, 1999). Yet, there does not seem to be open dialogues about them yet and it is up to individuals to learn to navigate these differences in practice.

Another interesting question raised for me is also that, if licence and title related exams challenge their experiential knowledge and demands them to invest time on reading and studying, why do engineers take these exams? One participant responded that writing exams for vocational titles is "a natural part of the career path for engineers." As to practice licences, one responded that he "needed it for work". One key informant told me that engineering companies encourage their employees to get titles and licences to enhance the qualifications of companies, which determine the kind of projects for which they can apply.

Gendered learning pathways

The only engineer who had not gone for either a vocational title or practice licence is a woman engineer. At the time of the interview, she had worked in her company for less than four years and was pregnant. When asked whether she applied for titles or licences, she said:

> We need to write exams. As I am pregnant, I did not apply. We need to pass subject exams before you are eligible for evaluation. For me, I am delayed for a year. After the exam, I will have to go through the evaluation process. That is, I need to wait for two more years to get the titles.

In the interview with the woman, she suggested that construction sites are not suitable for women. The fact that not all women may identify with on-site construction work may have to do with the demand of the industry for mobile workers. For instance, two of the male engineers were dispatched to work in Africa and East Asia for a period of time.

One other male participant was sent to work in a construction site in another province in China for a few years until he requested to come back because his son was "growing up without recognizing Daddy." Women, given the familial role traditionally expected of them, such as child rearing, may not find working away from the family to be particularly convenient. It may also have to do with the organisation of human relations on the sites. For instance, the woman engineer said, in order to be successful in the field, "when your seniors say that you need to jump into the well, you jump into the well. You could not expect different treatment because you are a woman." Given all this, the woman engineer related that she was planning to go back to university to do a postgraduate program. According to her, "it is not realistic for women to work in the field all the time," and a postgraduate degree will help her "get a management position working from the office." Clearly, gender, as a constitutive dimension of identity has had significant bearing on engineer's learning process (see Wenger, 1998); to some extent, gendered streaming has occured in their continuous learning experiences. Of note, the identity of being a woman is largely deemed irrelevant to the industry, which is perhaps exactly why it has become ever more relevant to women's learning and career plans.

Shaping continuous learning and training for engineers: The changing social relations

While continuous learning relies on individual engineers investing time and energy, their motivations, means, and modes of learning do not reside within the individual (see Leont'ev, 1978). They are rather related to companies' interest and investment in training, which are in turn constituted within the organisation of the engineering industry and profession. In this section, by tracing texts, which I treat as organizers of social activities (Smith, 2005), I trace the social relations that shape the continuous learning pathways in engineering. Specifically, I examine the traditional occupational title system in China, the licensure system that recently emerged, as well as the governmental regulation of the construction sector.

Vocational title systems

Traditionally, the Chinese government has used the vocational title system to manage professionals and specialists by granting them

vocational titles as a means to determine their salary level. Historically, the state has passed a number of vocational title regulation policies, but by the end of the 1970s vocational title practices were suspended as the state coffer, due to economic stagnation, could not meet the increased salary demands that came with the increasing number of vocational titles awarded. Meanwhile, around this time Deng Xiaoping launched the economic reform and opening-up policy to unleash individual and local initiatives and entrepreneurialism as a way to stimulate economic growth. The vocational title system was resumed in 1983 but was fundamentally reformed in 1986 with the passing of the "Regulations on Hiring Specialists with Vocational Titles"(关于实行专业技术职务聘任制度的规定) by the State Council. These regulations replaced the life-time title system with a contract-based hiring system. Whereas previously a vocational title, once granted, would follow a person for a lifetime, they are now only valid during the period of hiring. In other words, the title system has become associated with not only salaries, but also specific job responsibilities, employment conditions, and employment tenures with particular companies (Guo, 2005). For engineering practitioners, the regulation specifies that vocational titles include technologists, assistant engineers, engineers, and senior engineers.

To apply for vocational titles, a State notice on intermediate and senior vocational title assessment for engineering and construction companies (关于工程建设类企业中高级职称评审申报工作通知) (2013-2014) specifies the following requirements:

> Senior engineers (senior vocational titles): College diploma and above, 33 years and above, 8 years' related work experiences;
>
> Intermediate engineers (intermediate vocational titles): College diploma and above, 28 years and above, 5 years' related work experiences;
>
> Assistant engineers (junior vocational titles): Secondary diploma and above, 25 years and above, and 2 years' related work experiences (CNCCE, n.d.).

To apply for vocational titles, individual applicants need endorsement from their workplaces. They also need to submit a thesis and a summary

of work experiences and other related experiences. Some have to pass a set of exams, including English and computer usage (ibid).

Of note, not all people qualified for titles may get them right away. State-owned companies such as *Sunrise* abide by quotas decreed by related state departments. For those that are out of the state system, they are also encouraged to adopt the vocational title system. In the notice above, it says:

> To increase the monetary rewards for employees in non-state enterprises, to implement reform in human resource management system, to support enterprises with employee assessment, to ensure equity and right for human resources (employees), to provide a standard for enterprise when hiring, to make sure that individuals equipped with required capacities get recognized by enterprises and the society and be treated with the same social status as those in state-owned enterprises, the human resources departments of all provinces have now started working on vocational title assessment. (CNCCE, n.d.).

In other words, although the vocational title system may not be in effect in non-state companies to the same extent that it is in state-owned companies, it remains a major system that employers need to reference when it comes to salary determinations.

Practice registration – connecting rails with the world

Practice registration is a concept that did not come to China until the 1990s. In 1995, the Ministry of Human Resources (MHR) stipulated *Interim Procedures to Implement Vocational Qualification Certification System* (职业资格证书制度暂行办法) in fields deemed to be of crucial importance to the security of the state and the safety of the people. The interim procedures are subdivided into two systems: vocational titles and practice registration or licensure. The former, as elaborated above, grants vocational titles to practitioners who have demonstrated that they have acquired the basic knowledge, skills, and capacity to engage in technical work. The latter is adopted to certify that individuals have the requisite knowledge, skills, and capacities to take legal responsibilities for independent professional practice (Kong, Zou &

Wang, 2005). In September, 1995, the architecture sector in China first adopted a practice registration system. In 2001, the Ministry of Human Resources (MHR) and the Ministry of Construction (MOC) jointly announced *the Overarching Framework and Implementation Plan to Register Survey and Design Engineers* (勘察设计注册工程师制度总体框架及实施规划). The framework starts by stating:

> Based on the needs of the country, and in reference to the registration practices commonly adopted in foreign countries, practice qualification registration system for survey and design practitioners in China is classified into three categories: Registered engineers, registered architects, and registered landscape designers (MHR & MOC, 2001).

Clearly, the adoption of the registration or licensure practices in China is part and parcel of China's attempt to internationalize engineering education and the engineering profession and to "connect rails" with related practices in the world, especially the West.

The desire of the engineering profession for internationalization is best illustrated in the accreditation movement of engineering programs that is currently under way in China. Over the last two decades the Chinese state has tried to introduce program accreditation practices to engineering education. In the 1990s, for instance, MOC has proposed a mission to establish an engineering program accreditation system that "connects rails" with the world (Bi, Chen & He, 2006). To this end, in the 1990s, the National Board of Civil Engineering Accreditation (NBCE) was established to evaluate and recognize engineering programs in China by adopting international standards. Currently, China is set to join the Washington Accord, an international agreement among bodies responsible for accrediting engineering degree programs in signatory countries and areas. The accreditation framework of the Washington Accord as such has been adopted for program accreditation and practice qualification recognition in a number of engineering fields in China, such as computer sciences, mechanical engineering, and chemical engineering (Jiang, 2009). Currently, universities are encouraged to conduct self-evaluation and to apply for program accreditation, and the China Engineering Education Accreditation Association (中国工程教育认证协会) has been established by the Ministry of Education to oversee

the accreditation process.

If engineering education is in the process of connecting rails with the world, existing licensure policies have not connected with the changing engineering program accreditation practices. For instance, according to *Interim Regulations on Licensed Constructors* (建造师执业资格制度暂行规定), to register as a licensed constructor, an applicant needs to meet one of five conditions. For instance:

1) Having acquired a diploma in engineering or engineering economics, and having had six years' work experience, with four years' experience of managing construction projects;

2) Having acquired a bachelor degree in engineering or engineering economics, and having had four years' work experience, with three years' experience of managing construction projects (MHR & MOC, 2002).

As the degrees of applicants go up, the number of years' experience required of them to apply for a licence goes down. Of note, there is no association between the accreditation status of engineering programs and licensure practices. In other words, there is a disjuncture between the desire of the engineering profession in China to internationalize engineering education and the existing licensure practices in engineering in China.

In addition to meeting the educational and work experience requirements, applicants need to take a set of national exams. Interestingly, none of the research participants, including those who acquired licences, were clear about what constitutes "passing the exams." Instead, they believed that there is no fixed threshold. They suggested that there might actually be an annual quota for licensed practitioners in different fields. Only people in the top percentage "pass" the exams. It is difficult to verify whether quotas have been used for licensure purposes or to find out about how quotas are determined without interviewing people who work within the licensure system. The lack of transparency around this issue, however, suggests tension between the country's desire to internationalize and professionalize engineering, and state control over professional autonomy.

Company qualifications and bidding regulations of the construction sector

Vocational titles and licensure status are professional designations for individual employees. However, as a key informant related, they become desirable for engineering companies as they are factored into a company's qualification profile, and determine in part the eligibility of a company to bid for different kinds of construction and design projects. As China is moving from a planned economy to a socialist market economy, bidding, rather than state assignments, has become the major mechanism for companies to acquire projects and businesses. Bidding was introduced to the construction market in China in the mid-1980s (Shen, Li, Drew, & Shen, 2004). In 2000, the PRC National Development Planning Committee announced *Regulations on the Scope and Standards for Construction Project Bidding* (工程建设项目招标范围和规模标准规定). *The Regulations* specifies that the following projects need to be bided in the market:

Item two:	Infrastructure projects that concerns public interests and public safety;
Item three:	Public projects that concern public interest and public safety;
Item Four:	Projects funded by the state;
Item Five:	Projects financed by the state;
Item Six:	Projects that use loans or financial assistances from international organisations or foreign governments (the PRC National Development Planning Committee, 2000).

The regulations proceed to state that projects related to the above five types of projects also need to go through the bidding process depending on the size of budgets.

According to *the Bidding Law of the People's Republic of China* (中华人民共和国招标投标法) (Standing Committee of the National People's Congress, 1999), since 1998 the Chinese government has put more emphasis on investing in infrastructure construction, with the explicit goal of stimulating continuous GDP growth. Presumably, major infrastructure projects and state-funded projects account for a good percentage of the construction market, and related businesses need to be acquired through bidding.

Not all companies can bid for all projects. The kind of projects companies can bid for depends on their qualifications. For instance, according to *Classification Standards for Construction Company Qualifications* (建筑业企业资质等级标准) (MOC, 2001), ECP companies specialized in residential building construction are classified into level plus, level one, level two, and level three in a descending order based on their project experiences, employees' technological backgrounds, companies' registered capital, the highest project budget dealt with in recent history, and construction and quality monitoring equipment (MOC, 2001). For residential ECP companies to be classified as level-one companies, they need a technical and engineering team with the following qualifications:

> Business managers need more than 10 years' experiences of project management and need to have acquired senior vocational titles; Chief engineers need more than 10 years' experience with construction project management and needs to have acquired senior vocational title within their fields of speciality...Within the company, no fewer than 300 employees should have acquired vocational titles in engineering and economic management...(MOC, 2001, p. 6-7).

Level one ECP residential building companies are allowed to bid for residential projects that are up to 5 times higher than their registered capital (minimum RMB 500 million), and that are up to 40 stories with unlimited span and 240-metres in height (ibid).

Clearly, to be eligible to bid for projects, companies need to enhance their qualifications by, amongst other things, providing opportunities and incentives for employees to pursue continuous education and learning. In other words, company qualifications and bidding requirements – which would otherwise seem to be far removed from issues of training and employees' continuous education – have made it imperative for engineering companies to invest in training. To a great extent, when the HR departments in *Sunrise* and *Huali* work actively to urge their employees to obtain titles and practice licences, they work to maintain and enhance the qualifications of their companies which in turn may bring in better business prospects. In the case of

Alliances, when it first entered China, it sought to bid independently for projects. At that time, the company encouraged employees to go for vocational title and licences. Later, it found a Chinese partner that had the qualifications required in China to bid for large projects. As such, it discontinued its incentive program.

Problems and possibilities: discussion of the findings

This paper shows that China has had a tradition of providing continuous training and educational opportunities through and beyond workplaces. Based on the experiences of five engineers, it reports three major learning pathways for engineering practitioners: shadowing, title and licence related learning, and higher education. It also identifies issues that underlie their learning experiences: differential company support for learning, tension between professional standardization and experiential knowing, and gendered streaming. Given the limited number of engineers who participated in the study, in no way do I intend to generalize the findings to all engineers in China. The picture that emerged from the study is however significant. It largely echoes the literature on continuous education in China. It also points to the issue of gender, which has rarely been discussed but nevertheless has implicitly shaped the experiences of men and women in the profession. What is more important is that it pinpoints the changing social relations constituting companies' investment in training and engineers' interest and motivation for learning. In particular, the findings suggest that vocational titles and professional practice licences have served as a social organiser that links up business sectoral regulation, professional regulation, training investment of companies, and the learning opportunities and efforts of individuals.

While tracing how these certificates are historically produced and enacted, this paper also points to some issues with regard to continuous training and education in China. In particular, the paper shows interesting tensions between the desire of China to internationalize its engineering education and profession, and the desire to maintain state control over professions and designation of professionals. On the one hand, the state has encouraged engineering institutions to use international standards for program accreditation and has created the institutional structure for licensure practices. On the other hand,

the kind of professional autonomy signified by licensure practices in the international arena has no bearing in the Chinese context. This particular scenario gives rise to both some problems and possibilities.

To start with, the licensure systems are right now running side by side with the title system. The former serves as a gatekeeper to independent professional practice. It also works to individualize professional responsibilities. The latter certifies that individuals have the basic skills to practise in their profession and it has been used to recognize the staged professional development of mass practitioners within engineering. Some of the research participants speculated that the traditional vocational title system may become obsolete in China. At present, the dual recognition systems may also be a unique opportunity for China to ensure a qualified and ever-developing base of engineering practitioners at different levels (through the title system), while providing motivations for some practitioners to pursue independent leadership in professional practices (through the licensure system). Combined together, these two systems may constitute a continuous learning pathway for engineering practitioners, although issues of transparency need to be addressed, particularly with regard to what constitute as the threshold to be qualified as independent practitioners.

The introduction of individualized responsibility through the licensure system, however, may have also given rise to the commodification and marketization of professional licences. Some engineers find it more profitable to "lend", for a fee, their licences to a company that needs licences to upgrade its qualifications. Anecdotally, there has indeed emerged a hidden market where some middle persons and agencies have handled professional licences like merchandise, although the government has officially forbidden such misuses of certificates. This phenomenon may reflect the discomfort that the country is experiencing as it moves into a socialist market-based economy. Institutionally, it will remain a challenge for China to try to free human capital through exercising centralized control to mediate individualized professional autonomy.

Endnotes

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2 All names for organizations and participants are pseudonyms.

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Developing a qualifications structure for the finance services industry in Malaysia and beyond

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The development of qualifications systems and frameworks assists in promoting lifelong learning and work-based recognition systems. Several nations in the Asian Pacific region have established national qualifications frameworks across their respective educational sectors (e.g., Australia, New Zealand, Hong Kong, Malaysia and the Philippines), whilst others have frameworks for specific educational sectors (e.g., Singapore and Thailand). Work is also underway to develop an ASEAN Qualifications Reference Framework which "will enhance each country's national qualification framework or qualification system while providing a mechanism to facilitate comparison and transparency" (ASEAN 2013: p. 2). However, academic- and vocational-based qualifications remain the primary emphasis of these frameworks. This paper focuses on the development of a Finance Qualifications Structure (FQS) and the crucial role this

will play in the development of human capital in the financial services industry (FSI) not only in Malaysia, but across Asia and beyond into the Middle East, African and European regions. The FQS aims to integrate and harmonise all the professional qualifications in the FSI into a single structure on the basis of FAA Learning Standards and FAA Recognition of Learning (RPL). Talent management and mobility in the FSI is a key concern as is the need to recognise the competencies of those who have been working in the sector for many years but may possess only professional but not academic qualifications. The paper is centred on the role played by the Finance Accreditation Agency (FAA) in developing the FQS through high levels of stakeholder engagement and consultation, both nationally and internationally and the important role played by the recognition of prior learning. The level of industry and stakeholder engagement in the development of the FQS and the importance of the FAA Recognition of Learning (FRL) have been outstanding features of FAA's activities and have been identified as key enablers by the International Labour Organization (ILO) for fostering effective lifelong policy and practice (Singh and Duvekot 2013).

Keywords: *Finance Qualifications Structure, learning standards, recognition of prior learning, national qualification frameworks, finance services industry, Malaysia.*

Introduction

The concept of lifelong learning is becoming increasingly important in the Australian, Asian and Pacific regions where 'globalization and economic integration are making learning and training policies even more important. It is now widely recognized that a well-trained work force is the key to provide firms with a competitive edge. There is a clear need to equip workers with higher and different skills to enable them to adapt to accelerating technical and market changes' (ILO, 2004, p. iii). Policies of lifelong learning and national qualifications frameworks (NQFs) and systems are inextricably linked. In a report commissioned for the Asia-Pacific Economic Cooperation (APEC) Human Resources Development Working Group (HRDWG) on the mapping of qualification

frameworks across APEC economies, the authors explicitly make this link between NQFs and lifelong learning:

> If backed by a good system of quality assurance, they can support the development of workers' skills, facilitate educational and labour market mobility, and help improve the access of individuals to higher and different levels of education and training over their lives. Education and training providers and authorities are able to design more consistent and linked qualifications when descriptors of qualifications are developed within NQFs. Employers benefit in their recruitment and training of staff when they can understand and have confidence in qualifications. (Burke et al., 2009:1).

There is no denying the important role played by RPL in fostering lifelong learning. Atchoarena (2003) reported on a joint project between the International Institute for Educational Planning (IIEP/UNESCO), the Korea Research Institute for Vocational Education and Training (KRIVET), the National Institute for Educational Policy Research (NIEPR) of Japan and Australia's National Centre for Vocational Education Research (NCVER). The three issues the project was focused upon was (1) financing of lifelong learning, (2) recognition of qualifications and prior learning and (3) the impact of lifelong learning strategies on education systems. The ILO (2004) also proffer the numerous advantages offered by well designed recognition systems: 'better identification and use of skills by existing employees; assistance and guidance in [human resource development] HRD planning; improved enterprises' recruitment of staff; improved credibility of qualifications and training provision; the creation of systems of certification of portable skills that are recognised across enterprises, sectors, industries, educational institutions; and, the promotion of labour market mobility' (ILO 2004: 38).

Malaysia introduced the Malaysian Qualifications Framework (MQF) in 2007; however it is still perceived as being in its early stages of implementation (Burke et al., 2009; Keating, 2011). Keating (2011) refers to the development of the MQF as a 'second phase framework located in a middle-level economy' (Keating, 2011: 397). In terms of waves of NQFs, Allais et al. (2009) differentiated the first wave of NQFs

which were established in developed nations (Scotland, England, New Zealand, South Africa and Australia) from the more recent second wave. Chakroun (2010) notes that in 2009, there existed 70 NQFs, with most of these established between 2005 and 2009. Later, a joint publication by the European Training Foundation (ETF), the Centre for the Development of Vocational Training (Cedefop) and UNESCO's Institute for Lifelong Learning (UIL) (ETF, CEDEFOP & UNESCO-ILL, 2013) mapped NQFs globally in 2013 and found there to be 142 NQFs in existence.

The *Financial Sector Blueprint 2011-2020* for the Malaysian economy places the finance sector firmly at the forefront of economic growth and the aspirations of Malaysia in becoming a developed nation by 2020 and to build on Malaysia's existing leadership in Islamic Finance. Key to this will be the 'intensification of regional economic and financial integration …[and] to develop Malaysia as an International Islamic Financial centre' (Bank Negara Malaysia, 2011: 4). To achieve the aspirations, an emphasis is clearly laid in the Blueprint as well as the *Securities Commission Malaysia's Capital Market Master Plan 2* to enhance the skills and competencies of the existing workforce to enable them to perform in a more competitive and globalised environment and to meet rigorous standards in delivering intended learning outcomes that are relevant to the needs of the financial services industry (FSI) and that professionals in the FSI are fully competent of their roles.

In line with the emphasis, the Finance Accreditation Agency (FAA) was established in 2012 as an international and independent quality assurance and accreditation body for the FSI supported by the Central Bank of Malaysia and Securities Commission Malaysia. The FAA has engaged in high levels of stakeholder engagement to fulfil its mission to inspire and promote the highest quality in continuing education and professional development for the FSI through its globally benchmarked accreditation framework, standards and practices (FAA, n.a.).

The paper describes the role of FAA in terms of one of its most important initiatives which is the development of a Finance Qualifications Structure (FQS) for the FSI. As the MQF is still in its early stages of implementation, its emphasis had been on academic and vocational qualifications, ranging from Certificate to Doctoral

degree levels with little focus on professional-based qualifications. The professional-based qualifications in this context should not be confused with specific qualifications that are required to perform an occupation such as those required by medical doctors, engineers and accountants, to name a few, but those that are offered to FSI employees leading to certification. On the offset, the FQS would function similarly as that of NQFs as described by Burke et al. (2009) through mapping and levelling various professional qualifications in the FSI based upon the specific competencies and outcomes to be achieved, along with the recognition of prior learning (RPL) mechanisms. Launched on September 2 this year, the FQS will be amongst the first of such initiatives to recognise such professional qualifications and prior learning experiences possessed by the FSI practitioners for the purpose of career development.

The FQS will remain isolated from the academic frameworks until and when a comprehensive mapping exercise is carried out in 2015, beginning with the MQF so that more objectives in promoting the quality of human capital development can be realised. These include opportunities for FSI employees to pursue academic qualifications with possible exemptions and facilitate the engagement of industry experts (through bundling of professional qualifications and RPL) to teach university curriculum. In addition, the FQS will benefit undergraduate and postgraduate students in terms of providing a holistic curriculum combining both academic and industry requirements, making them job ready upon graduation. For training providers, the FQS aids in the development of curriculum and creating qualifications with appropriate learning outcomes. Regardless of the beneficiaries, the FQS will contribute to the talent development initiative in the FSI across different economies including the Asian and beyond into the Middle East, African and European regions through a collaborative approach with different stakeholders. The central role played by RPL within the FQS will be discussed along with the level of stakeholder engagement and the plans to implement the FQS internationally, with particular reference to Islamic Finance. Gobaloo and Fahmin (2013) in their paper on the role of the MQF and RPL provide a Malaysian context to this issue. They estimate 9 million Malaysian workers out of a workforce of 12 million have fewer than 9 years of schooling. As a result the MQF and RPL have a significant role to play in human capital development to ensure

national sustainability and competiveness.

Role of NQFs and systems in skills and labour mobility

In a recent report conducted jointly by the Asian Development Bank Institute, the Organisation for Economic Co-operation and Development (OECD) and the International Labour Organisation (ILO) (Xing, Dumont and Baruah, 2014), the important role of labour migration and skills mobility in Asia was the focus. Migration of labour and in particular skilled labour is growing in importance worldwide and flows from and into Asia are increasing:

> Labour migration from and within Asia is of growing importance to meet labour needs both within the region and in non-Asian OECD countries. …Asia is clearly the number one source region for managed labour migration flows, and its importance has steadily grown in recent years. In particular, the PRC [People's Republic of China] has shown significant growth in recent years as an origin country, and 1 in 10 new immigrants to the OECD is Chinese. Other key origin countries are The Philippines, Pakistan and Viet Nam. Especially the OECD settlement countries—Australia, Canada, New Zealand, and the United States—host significant numbers of skilled labour migrants from Asia (Xing et al., 2014: 13).

The report notes that a number of 'rising economies in the region, such as Malaysia, Singapore, Taipei, China, Thailand, and Hong Kong, are attracting a growing share of workers from other parts of Asia… The planned development of a free mobility area for skilled labour migration within ASEAN can be expected to have a significant impact, both on the size and composition of the flows within the region and also to OECD countries' (Xing et al., 2014: 13). The increase in labour mobility throughout the Asian region and to OECD countries is a sign of the growth in economies within the region and the critical need to have quality assurance mechanisms in the education and training sectors to enable mutual recognition and mapping of qualifications across the region. Otherwise, the mobility which is needed will be stymied and will exacerbate talent management imperatives.

In this context, FAA has been approached by a number of financial

institutions on the possibility of employees practising across jurisdictions as a result of the globalisation efforts of such institutions. Accordingly, employees who have obtained certification in the country they practiced have been requested to do another certification when they are transferred and/or reassigned, resulting in time and productivity lost. It has been reported that 80% of the coverage of such programmes are similar to what they already knew, thus giving rise to frustrations on the side of the employers and employees. The FQS can thus play the role of the NQFs in facilitating skills and labour mobility when the structure is recognised and accepted by different jurisdictions.

Qualification frameworks and systems in the Asian region

A report on the qualifications frameworks in APEC economies was undertaken for the Asia-Pacific Economic Cooperation (APEC) Human Resources Development Working Group (HRDWG) Education Network Subgroup (EDNET) (Burke et al., 2009). The study was conducted collaboratively between the Centre for Economics of Education and Training at Monash University, the Centre for Postcompulsory Education and Lifelong Learning at the University of Melbourne, and the Victorian Registration and Qualifications Authority. Data was collected on 21 APEC members of which, seven had NQFs: Australia, Hong Kong SAR China, Malaysia, New Zealand, Singapore, Thailand and The Philippines. Korea has a framework in development. Table 1 maps these NQFs and the authorities who administer them.

Table 1: Academic qualification frameworks in the Asian region

All Sectors (Secondary School, VET & HE)		
Country	**Framework**	**Authority**
Australia	Australian Qualifications Framework	AQF Council
Hong Kong	Hong Kong Qualification Framework, October	Education Bureau of the Hong Kong SAR Government
Malaysia	Malaysian Qualifications Framework	Malaysian Qualification Agency (MQA)
New Zealand	New Zealand Qualification Framework	New Zealand Qualifications Authority

The Phillipines	* Phillipine National Qualifications Framework (PNQF), December 2012	Technical Education & Skills Development Authority (TESDA)
		Federation of Accrediting Agencies (FAAP) and (CHED)
VET Sector ONLY		
Country	**Framework**	**Statutory authority**
Singapore	Singapore Workforce Skills Qualifications (WSQ)	Workforce Development Agency (WDA)
HE Sector ONLY		
Country	**Framework**	**Statutory authority**
Thailand	National Qualifications Framework for Higher Education in Thailand	Ministry of University Affairs (MUA)

*both sectors covered but managed by two different entities
Sources: Burke et al (2009); FAA (2013)

Regional qualification systems

The European Qualification Framework (EQF) was adopted in 2008. It was established so as to enable the comparison of qualifications from different European countries. Only three European nations had NQFs at the time the EQF was adopted (Ireland, France and UK). 'A total of 36 countries are now working together to implement the EQF: the 28 EU Member States plus the former Yugoslav Republic of Macedonia, Iceland, Liechtenstein, Montenegro, Norway, Serbia, Switzerland and Turkey' (CEDEFOP, 2013: 1). At the time of this report, all 36 of the nations involved in the EQF have or were developing their own NQFs.

> The European Qualifications Framework (EQF) acts as a translation device to make national qualifications more readable across Europe, promoting workers' and learners' mobility between countries and facilitating their lifelong learning. The EQF aims to relate different countries' national qualifications systems to a common European reference framework.

> Individuals and employers will be able to use the EQF to better understand and compare the qualifications levels of different countries and different education and training systems' (EC, 2012).

The Burke et al.'s (2009) study commissioned by APEC recommended a voluntary regional framework should be developed for the Asia-Pacific region which aligns itself with the 8 core features of the EQF.

The Association of Southeast Asian Nations (ASEAN) is a regional body made up of the following 10 members: Malaysia; Indonesia; Singapore; Thailand; the Philippines; Cambodia; Vietnam; Burma; Brunei Darussalam; and Laos. The ASEAN concept proposal for an ASEAN Qualification Reference Framework found traction with a project on Education and Training Governance which was part of the ASEAN-Australia-New Zealand Free Trade Area (AANZFRA) Economic Cooperation Work Programme (ECWP). A draft of the ASEAN Qualifications Reference Framework was published in 2013, with the stated purposes of the Framework being very similar to the purposes of the EQF, to: 'support recognition of qualifications; facilitate lifelong learning; promote and encourage credit transfer and learner mobility; promote worker mobility and; lead to better understood and higher quality qualifications systems' (ASEAN, 2013: 2).

> The ASEAN Qualifications Reference Framework will support and enhance each country's national qualifications framework or qualifications system while providing a mechanism to facilitate comparison and transparency. The ASEAN Qualifications Reference Framework will link the participating ASEAN NQFs or qualification systems and become the ASEAN's mechanism for recognition of its qualifications against other regional and international qualifications systems (ASEAN, 2013:2).

This paper now presents the activities of the FAA and its work in developing a FQS for the FSI in Malaysia and beyond.

Developing a qualification structure for the financial services industry in Malaysia

Financial Services Industry (FSI)

The FSI has been acknowledged as a crucial sector of any economy. In 2012, the FSI accounted for 5% of the Gross Domestic Product (GDP) of the world and further growth in the sector is to be anticipated. Along with the unprecedented growth, however, comes challenges which amongst others, the availability and development of sufficient human capital to support the growth in the FSI (Manshor and Chong, 2014). This is evident from many of the surveys conducted across the globe. For instance, the Global Financial Services Industry survey conducted by Deloitte (2013) on 200 senior executives around the world reported that human capital shortage is one of the paramount issues to be addressed. Specifically, more than half of the respondents surveyed concurred that finding talent with appropriate qualifications and developing the right incentives to maintain the turnover rate is critical for the future growth of their companies. The findings corroborate the global survey by Price Waterhouse Coopers (2013) which found that on average, close to half of the FSI experienced a deficit of skilled candidates, with less than a quarter of the Chief Executive Officers planning to invest in filling talent gaps.

In another survey on the financial services sector in Australia (n=404) by Robert Half Finance & Accounting (2009), more than half of the respondents attributed lack of training and development opportunities within organisations as a reason for the shortage of talent. Such a concern is translated across other sectors within the FSI, including Islamic Finance in which 61% of those surveyed in Deloitte's Islamic Finance Leaders Survey in the Middle East in 2010 concluded that FSI professionals require more training and skills development. Similarly, the *Malaysian Financial Sector Blueprint 2011-2020* highlights the need for high quality and competent human capital to sustain the FSI, in which some areas of concern include enhancing the overall content and quality of learning programmes as well as development of certification of skills level or competencies required for the key functions and positions within the sector. The *Malaysian Financial Sector Blueprint 2011-2020* identifies 9 focus areas, some of which fall under the brief of this special

issue:

- Strengthening regional and international financial integration;
- Internationalisation of Islamic Finance; and
- Talent management to support a more dynamic financial sector.

The Blueprint emphasises the latter point through the need to develop talent at the entry level, promoting lifelong learning for the existing workforce, and attracting talent from overseas or abroad which will require greater collaboration and coordination amongst various agencies beyond the financial sector.

> A further critical success factor to achieve the vision for the financial sector is the supply of highly-skilled talent. The changing demographics consisting of a multigenerational workforce and the increasing international mobility of labour will further intensify the global war for talent. Going forward, the Bank will continue to support and complement industry initiatives aimed at ensuring the supply of a deep pool of highly-skilled talent to drive the financial services sector. Efforts will also be put in place to create an enabling environment that will promote Malaysia as a centre of excellence for financial sector education (Bank Negara Malaysia, 2013: 43).

The aforementioned issues imply that an integrated and coordinated approach is required to ensure global quality talent development and availability in the FSI. To this end, quality assurance initiatives need to be in place that will inspire confidence of the industry and which can be used as a basis for learning and development of its human capital. This suggests the need for the establishment of a comprehensive quality assurance framework to ensure quality and consistency of learning content across the FSI. Inherent in the quality assurance framework is the development of learning standards based on internationally benchmarked industry requirements which serve as minimum standards as curriculum is designed, developed and delivered. On a wider scale, a Qualification Structure with the purpose of harmonising and integrating qualifications in the FSI into a single structure is required for the purpose of mobility of FSI employees both for career development and for seeking higher academic qualifications. The buy-in for such a

structure is subsequently warranted through collaborative partnerships between institutions of higher learning and the FSI to ensure sufficient talent availability for the sustainability of the industry. It is against this backdrop that the FAA was established.

Finance Accreditation Agency (FAA)

Established in August 2012, the FAA's vision is to become a: *Global Leader in Ensuring Quality Learning in the Financial Services Industry*, with a mission to: *inspire and promote the highest quality in continuing education and professional development for the FSI through its globally benchmarked accreditation framework, standards and practices*. The FAA is mandated to contribute to the FSI through the following functions:

1. Establish quality assurance and accreditation framework and criteria;

2. Accredit programmes, institutions and individuals that fulfil the set criteria and principles;

3. Promote and implement recognition of prior learning standards and practices;

4. Maintain and administer the Qualification Structure for the FSI;

5. Register and maintain the FAA approved training providers and/or accredited learning programmes and qualifications, institutions and individuals in the FSI;

6. Seek global recognition of learning and qualifications;

7. Facilitate the recognition and articulation of learning programmes and qualifications through mutual recognition initiatives; and

8. Seek accreditation and strategic alliances with world-renowned accreditation agencies and relevant institutions.

The FAA has since developed the FAA Quality Framework (FQF) which serves as an overarching framework for institutional, learning programmes and individual accreditation. Specifically, the FAA Learning Criteria (FLC) was developed to assess and accredit learning

programmes. Comprising 6 dimensions, the third dimension of the FLC (learning programme structure) has been further supported through the development of 227 FAA Learning Standards (FLS) which serve as the minimum requirements for the design, development and delivery of learning programmes related to Islamic Finance, Banking, Insurance, Capital Markets and Corporate Programmes.

Given the nature of the roles of the FAA, it has been imperative that FAA is independent and transparent in dealing with all quality assurance and accreditation activities so as to gain and maintain the trust and confidence of policy makers, FSI, its employees and the public in the standards and systems developed and implemented. To facilitate the accreditation process, FAA has established three independent committees, namely the FAA Technical Committee (FTC), FAA Accreditation Committee (FAC) and the FAA Accreditation Panel (FAP). The FTC and FAP members consist of renowned experts in the FSI from the sectors of Islamic Finance, Banking, Insurance, Capital Markets and Corporate Programmes.

Both the FAA Learning Criteria (FLC) and FLS are used for learning programme accreditation submitted for FAA Approval, FAA Provisional Accreditation and FAA Full Accreditation, generally known as FAA Programme Accreditation (FPA). FAA defines FPA as a process to recognise that the design, development, delivery and all other related activities of a learning programme provided by the FAA registered training providers meet the FLC and are in compliance with the requirements of the FSI.

FAA defines institutional accreditation as an external quality review to evaluate and recognise the training providers as having the capabilities to conduct a specific range of learning programmes aimed at advancing the development of talents based on the FQF, whereas individual accreditation is described as a process to assess and recognise the competencies of an individual, i.e. knowledge, skills and applications against a set of defined workplace skills using suitable assessment methodologies based on the competency framework of the FSI.

Finance Qualification Structure (FQS)

Taken together the FQF, FLC and FLS, coupled with FAA Recognition

of Learning (FRL), pave the way for the development of the FQS. The objective of the FQS is to harmonise, integrate and streamline professional qualifications in the FSI into a single qualification structure. The added value of the FQS is translated in several ways:

1. It is an overarching classification of recognised qualifications;

2. It makes the content of qualifications and their mutual relationships clearer through appropriate levelling;

3. It enhances communication on qualifications between education and training providers and the employment market;

4. It consolidates the potential for exchanges between various learning systems; and

5. It enables individuals in the FSI to understand and plan their career progression.

In other words, the FQS enables equivalency of the different levels of professional qualifications to be mapped against various qualifications frameworks and industry standards. As such, it is a comprehensive structure developed primarily based on three critical components:

1. Accreditation of learning programmes in the FSI for the purpose of recognition, credit transfer or exemption;

2. Recognition of prior learning; and

3. Career progression and personal development through the FSI competency framework.

Figure 1 shows the proposed relationships between the FQS and the academic as well as, the professional (skill-based) qualifications frameworks, to facilitate overall understanding of how the FQS is and/or will be structured based on the different sectors within the FSI (Figure 2). The FQS contains qualification descriptors (QDs) and qualification outcomes (QOs) reflecting the different professional qualifications in the FSI (Finance Qualifications Structure, 2014). Figure 2 also shows how the FQS will be mapped against the different levels of academic qualifications frameworks. The proposed FQS was derived from an extensive desktop review which identified 12 academic and 5 professional qualifications frameworks from different regions such as

Australasia, Eastern Asia, Europe, North America and South East Asia, many of which are identified in Table 1, as well as, the EQF (Finance Qualifications Structure, 2014).

Figure 1: *Description of FQS*
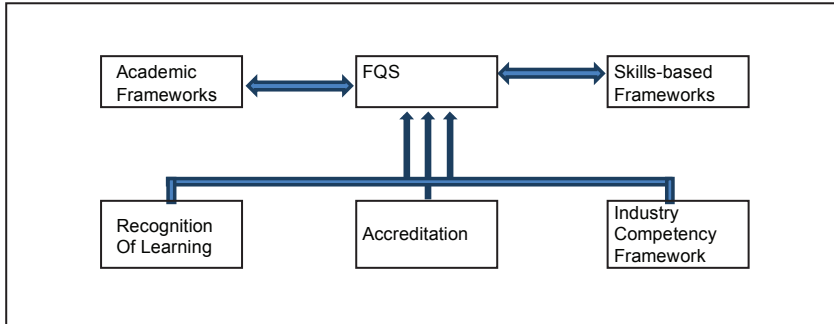
Figure 2: *Proposed mapping of learning programmes in FSI based on FQS levels, equivalency to academic and professional qualification frameworks and RPL*

Academic Frameworks	Qualifications					FQS Levels	
	Islamic Finance	Conventional Banking	Insurance	Capital Markets	Others		Recognition of Learning
8						6	
7							
6	List of Qualifications According to FSI Sectors					5	
5						4	
4						3	
3						2	
2						1	
1							

Subsequently, corresponding levels for each of the frameworks were established in order to understand and interpret the levelling in the context of FQS. It is on this premise that six levels are developed. Level 1 denotes the non-executives who possess a minimum qualification of 'O' Levels of equivalent. This level thus sets the basis of expectations

as individuals progress to the subsequent levels based on the relevant professional certification, continuous professional development/ education (CPD/CPE), prior learning and other work considerations. The highest level (Level 6) shall be equivalent to C-level individuals.

At each level of the FQS, QDs are developed which reflect the components of competencies required. In sync with the outcome-based nature of the FQS, the QDs are matched to the learning outcomes of each of the FLS levels through the 7 domains (knowledge; application skills; teamwork and leadership skills; problem solving and decision making skills; business and intrapreneurial skills; lifelong learning skills; and ethics and professionalism) which describe the QOs. It is on the basis of the QOs that mapping of professional programmes are made in the FQS. In addition, the FQS levels also enables individuals to determine their competencies (through individual accreditation) so that learning programmes at the appropriate level and/or sector can be determined. This is justified in the efforts to tie FQS closely to the industry competency framework and RPL.

The role of RPL: Filling the qualification gaps through recognition of learning

Singh and Duvekot (2013) in there synthesis of the link between recognition practices and NQFs assert that 'good practices' in summative accreditation tend to do the following:

1. Build upon the existing (national) procedure for quality-assurance of formal learning outcomes;

2. Professionalize the staff assigned to quality assurance by recognizing and assessing the value of sector-related non-formal and informal learning outcomes;

3. Strengthen expertise by setting up (or strengthening) network relations with relevant stakeholders in the sector (employers, trade unions, etc.); and

4. Focus on regional practices in learning and working.

Once this roadmap has been followed, it is a matter of benchmarking other countries' practices to find out which practices in other countries approaches to linking NQFs and RVA [recognition, validation and accreditation] might be adopted and integrated into existing lifelong

learning systems (Singh and Duvekot 2013, p. 27).

In relation to the work of the FAA individual accreditation is referred to as the FAA Recognition of Learning (FRL). FRL is a set of guidelines that enable individuals in the FSI to gain recognition for competencies that they already possessed or have gained through formal, informal and non-formal interventions. The aims of FRL are as follows:

1. To accredit individuals on the basis of competencies specified in the FQS;

2. To enable individuals to plan their learning pathways through the realisation of their current learning achievements, leading to the identification of their future personal and professional learning needs;

3. To enable employers to have a better understanding of the competencies of their employees in order to plan relevant training and learning programmes for a productive and capable workforce. FRL would also lead to time and money savings by avoiding duplication of learning; and

4. To equate current knowledge and skills to a formal qualification in a variety of ways:
   i.   Entry into a programme;
   ii. Credit transfer; and
   iii. Exemption.

The FRL Guidelines consist of the following: Definition and Context of FRL; Objectives of FRL; Benefits of FRL; Stages in a FRL Process; Types of Assessment Methods; Types of Evidence; Conduct of a FRL Assessment; Outcomes of FRL Assessment; Maintaining Records and Portfolios; FRL Templates and Forms; and Fees.

The FQS, through FRL, provides the implication that any FSI employee who has no formal qualification or possesses a lower level of formal qualification can be recognised as having a higher level of formal and academic qualification through work experience and professional certifications obtained, CPD/CPE activities and RPL mechanisms. Such a mechanism, when developed, needs to be recognised by different accrediting bodies across different jurisdictions. As this is

not a straightforward process, the International Steering Committee recommended that mapping with academic qualification frameworks will only be done in the later stage. The FRL initiatives, however, have already being developed. The International Steering Committee is described in the next sub-section.

Stakeholder Engagement

In the ILO study (2013) an international benchmarking exercise was undertaken on the links between recognition practices and NQFs with the study making a strong connection between the essential role played by stakeholders. For the private sector, it is employers and employer association which can play a vital role in lifelong learning policy and practice. In developing the FQS, the FAA has engaged in high levels of stakeholder engagement to ensure the industry and other key stakeholders have been consulted and involved. To this end, an International Steering Committee has been established and met for the first time on 29 November 2013, followed by a more recent meeting in 16 May 2014. Other national and international bodies that have been actively engaged with the FAA in the development of the FQS are listed below in Table 2.

Table 2: Professional bodies involved in the development of the FQS

Professional Bodies	Coverage
Association of Chartered Islamic Finance Professionals (ACIFP)	International
Financial Planning Association of Malaysia (FPAM)	National
Life Insurance Association of Malaysia (LIAM)	National
Malaysia Venture Capital & Private Equity Association (MVCA)	National
Malaysian Institute of Accountants (MIA)	National
Malaysian Institute of Corporate Governance (MICG)	National
Malaysian Insurance and Takaful Brokers Association (MITBA)	National
Malaysian Takaful Association (MTA)	National
Persatuan Insurans Am Malaysia (PIAM)	National

The Malaysian Institute of Certified Public Accountants (MICPA)	National
FSI Training Providers	
Institute of Bankers Malaysia (IBBM)	National
Islamic Banking and Finance Institute Malaysia (IBFIM)	National
Malaysian Insurance institute (MII)	National
Securities Industry Development Corporation (SIDC)	National

Specifically, the International Steering Committee functions to review and provide advice on the FQS. It is a one-time appointment where the members are expected to meet twice, once after the FQS is drafted and followed by another meeting after refinements are made, based on the feedback received. The Steering Committee consists of representatives from local and international qualification agencies, prominent industry experts and representatives, as well as, academics. The Committee members are identified by FAA through their involvements in developing NQFs, training providers and professional bodies in the FSI in order to obtain views that are representative of the FSI. An RPL expert is also identified as a member of the Committee in light of the FRL component in the FQS. The list, together with the FQS progress updates, were presented and endorsed by the FAA Board on 29 April 2013.

International representation on the committee is as follows:

- Scottish Qualifications Authority (SQA)
- Quality Assurance Authority for Education & Training, Bahrain
- Prior Learning International Research Centre (PLIRC)
- Hong Kong Council for Accreditation of Academic & Vocational Qualifications (HKCAAVQ)
- UK NARIC
- Asian Institute of Finance (AIF)

Representations from national bodies on the Committee are:

- Malaysian Qualifications Agency (MQA)
- Malaysian Insurance Institute (MII)
- Institute of Bankers Malaysia (IBBM)

- Islamic Banking and Finance Institute Malaysia (IBFIM)
- Association of Chartered Islamic Finance Professionals (ACIFP)
- Securities Industry Development Corporation (SIDC)

In general, the Committee welcomes the development of FQS, with many members describing such a move as timely, concurring with the issues faced by the FSI, as described earlier in relation to ensuring quality talent development in the sector. In the first meeting on 29 November 2013, four decisions were taken which include: (1) maintaining the FQS levels at six; (2) deferment of mapping FQS to academic frameworks until and when FQS is fully functional; (3) refine the definitions of QDs for consistency purpose; and (4) consult the stakeholders on the refinements made. For the purposes of item (3) and (4), the definitions of QDs were refined and three Focus Group discussions were held with the Islamic and Conventional Banking sector, Takaful and Insurance, and professional bodies and institutions of higher learning on the 13th, 19th and 20th of March 2014 respectively. As a result, further refinements were made and presented to the Steering Committee on 16th May 2014. The full FQS report was presented and approved by the FAA Board on 28th June 2014, followed by the FQS launch on 2nd September 2014.

Conclusion

The economic growth in the Asia region and increasing regional economic integration is a strong impetus for the developments currently underway in Malaysia's FSI as described by the FAA's activities. The FAA is attempting to meet the human capital challenges facing this sector in its crucial role in reaching developed nation status in 2020. This requires a strong commitment from the industry, policy makers and adult educators alike. The activities of the FAA also counters the claim made by Keating (2011: 405) that there has been 'limited realization of some of its [MQF] rhetoric, such as that surrounding RPL and credit'. The work being undertaken by the FAA has embedded a strong commitment to RPL and credit arrangements. The level of industry and stakeholder engagement in the development of the FQS and the importance of the FAA Recognition of Learning (FRL) have been outstanding features of FAA's activities and have been identified as key

enablers by the ILO for fostering effective lifelong policy and practice (Singh and Duvekot 2013).

The paper also highlights future developments which are being planned both in terms of roll out of the FQS in different regions, as well as, its mapping to academic frameworks, beginning with the MQF. In rolling out the FQS, its acceptability remains a challenge. It is only through realisation of the value propositions of the FQS, particularly its lifelong education characteristics and RPL, as well as adoption of the FLS that guarantee such acceptance. A total of 80 FLS for Islamic Finance has already been developed and launched on 2nd September 2014 in line with international best practices. It is only through standardisation in curriculum offerings that enable professional qualifications to be mapped against each other. A number of strategies have already been implemented to achieve buy-ins, such as through speaking engagements and collaborations with regulators, standard setting bodies, financial institutions and professional bodies. In Malaysia, efforts are underway for regulators to issue circulars regarding recognition of accredited learning programmes for CPD/CPE and licensing purposes. Another viable strategy is to convince the already accredited programmes and qualifications offered by the registered training providers locally and overseas to subscribe to the FQS. It was decided that only accredited learning programmes will be mapped against the FQS in order to encourage submissions for FPA.

The second development relates to the mapping to academic frameworks. Although it was decided by the Steering Committee that FAA should defer mapping FQS to academic frameworks, a seamless interaction between the two is necessary in view of its industry relevant nature and one which advocates lifelong education as reflected in the QOs, as well as, the RPL mechanism. This is an objective set for 2015 where the FQS will be mapped against the MQF, which subsequently provides wider recognition to the FQS in the ASEAN region to achieve the purposes outlined earlier in the paper. Discussions with MQA have already begun with the representation of MQA in the Steering Committee. However, more rigorous work is expected to take place in 2015. Before the exercise begins, there are a number of issues need to be considered, amongst the key ones include the role of MQA as a de-facto accreditation body for Malaysia as provided by the MQA Act 2007

and the weight of academic and professional qualifications in Islamic Finance. Having said so, industry relevance and lifelong education are some of the viable justifications for having FQS in place. Further, there is no plan for the MQF to be reviewed in the near future to incorporate professional-based qualifications, giving the FQS an edge along with differentiating it from the MQF. Both the Central Bank of Malaysia and Securities Commission Malaysia are providing strong support to FAA and together with the value propositions of FQS, it is hoped that FQS is accepted across the different fraternities. As a matter of fact, the FAA has started to explore the possibility of establishing a Joint Technical Committee (JTC) with MQA to jointly accredit academic programmes in Finance under Section 15 of MQA Act 2007 (Malaysian Qualifications Agency Act, 2007). There are also moves to go beyond the national boundaries by presenting a concept paper on FQS at the recent Asia Pacific Quality Network (APQN), as well as, leveraging on its membership in the International Quality Assurance Agencies in Higher Education (INQAAHE) to seek views and obtain buy-in not only for FQS but also for FAA to function as a subject specific accreditation body in the discipline of Finance.

In short, the FAA was established to support the concerted efforts of quality talent development in the FSI through quality assuring and accrediting institutions, learning programmes and/or qualifications and the competencies of individuals based on comprehensive quality assurance and accreditation mechanisms. Its role is further escalated by the development of FQS, which will position Malaysia in the region and across Islamic Finance services internationally. There are many challenges including different characteristics in different jurisdictions however, it is FAA's ultimate goal to see there is only one global learning standard for the FSI which is recognised by both the professional and academic frameworks.

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How can the expansion of the apprenticeship system in India create conditions for greater equity and social justice?

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This paper reports on aspects of a recent project carried out for the International Labour Organization (ILO) and the World Bank, which was designed to feed into the process of updating and expanding India's apprenticeship system. The apprenticeship system in India is extremely small for the country's population, even taking into account the high proportion of jobs that are in the informal economy, and is subject to very rigid regulation. Expansion of the system has been seen as vital in order to improve the supply of skills to the rapidly expanding economy, and also to address issues of disparity in labour market participation and equity for certain groups in Indian society. The paper firstly explains how findings about apprenticeship

systems from ten other countries, together with analysis of the Indian situation, were used to present options for consideration by the Indian government. It then analyses these options for their social justice and equity implications.

Keywords: *Apprenticeship, developing nation, equity, access to training*

Introduction

This paper reports on aspects of a recent project carried out for the International Labour Organization (ILO) and the World Bank, which was designed to feed into the process of updating and expanding India's apprenticeship system. The apprenticeship system in India is extremely small for the country's population, even taking into account the high proportion of jobs that are in the informal economy, and is subject to very rigid regulation. Expansion of the system has been seen as vital in order to improve the supply of skills to the rapidly expanding economy, and also to address issues of disparity in labour market participation and equity for certain groups in Indian society. However, until recently little firm progress had been made with the expansion of the system. The project used case studies of a number of countries to provide ideas for the Indian system, which were then tested with stakeholders.

India is a rapidly developing country with a population of over a billion people. But an important part of Indian economy and society is issues relating to social justice and equity; there are great disparities of income and of opportunity. These matters are of concern in all aspects of Indian public policy but many of the issues are quite intractable. Groups of concern are those from low socio-economic status, those in rural areas, women, and people from certain castes. In this paper we use findings from the project and additional commentary and analysis on the Indian situation to show how improvements to, and expansion of, the apprenticeship system could help to address these problems.

The paper is written by the two principal authors of the report, together with a staff member of the ILO who assisted with the final thematic analysis of the project data and has contributed additional data and analysis for this paper.

Background

India has a population of 1.2 billion and the second largest labour force in the world, at almost half a billion people (Economist, 2011). For much of the 2000s, India experienced rapid growth, averaging 8 percent or more per annum. However, since the end of 2011, growth has slowed considerably as macroeconomic imbalances continue to generate further risks for the Indian economy. At the same time, outcomes in the labour market have lagged economic trends with a period of 'jobless growth' from 2004-10 only recently overcome by stronger employment creation in 2011- 12 (International Labour Organization [ILO], 2013).

Many people leaving agricultural employment have moved to the service sector which has resulted in what has been termed 'service led growth' (Sarker, Nathan & Singh, 2014). This structural transformation has clearly affected the labour market in India, but in fact the vast majority of workers continue to work in informal jobs and as such, the quality of employment has not improved in tandem with India's growth (ILO, 2013). Of the 17 million new formal sector jobs created between 2009-12, the ILO has estimated that as much as 85 percent offer no employment benefits and social security (ILO, 2013). Until 2000, informal employment constituted 90 percent of jobs but that number went down to 82 percent by 2011-12. So whilst ostensibly more formal sector jobs are being created, in reality many of those can be categorised as informal, since they lack employment benefits and social security (ILO, 2013). It is also the case, as noted by Mehrotra, Gandhi and Sahoo (2013), that well over half of the labour force between 15-59 years of age also have extremely low levels of education or none at all.

Another important feature of the Indian labour market is that India has the largest youth population in the world with around 66% of the total population under the age of 35, (which is the upper limit used to define 'young people' in official Indian documents), representing over 808 million young people). Young people are much more likely to be unemployed than older people: for the age group 20-24 living in urban areas in India, 9.7% of young men and 18.7% of young women were unemployed in 2009-10. In comparison, the unemployment rate for Indians aged 30-34 reached only 1.2% and 3.4% for men and women, respectively (United Nations, 2010). While India is experiencing a

'demographic dividend' due to the youth bulge, many young people are reported to struggle to acquire the right skills demanded by employers to successfully navigate the transition from school to work (Comyn, 2014). As noted by Mitra and Verick (2013), a major long-term challenge in India is the fact that many youth, because of poverty and poor human capital endowment are forced to participate in the informal labour market at an early stage as they cannot afford to remain without an income for long. Often they become what are known in India as 'necessity entrepreneurs'.

Equity groups

The employment challenges outlined above are, of course, exacerbated for particular groups in the labour market, such as people with disabilities. Whilst estimates of the share of people with disabilities varies considerably from two to ten percent of the Indian population, due to inconsistent statistics (ILO, 2011) the ILO has noted that 'because of the sheer size of the Indian population, even the lowest estimate of disability makes it equal to the population of several European countries put together. Viewed in this perspective, persons with disability represent the single largest combined minority group in India' (ILO 2011, p. 8).

The caste system also affects participation in the labour market. As noted by Gang, Sen and Yun (2012), this elaborate system of stratified social hierarchy, which distinguishes India from most other societies, leads to clustering of certain social groups in 'occupations that are the least well paid and most degrading in terms of manual labour' (Gang et al 2012, p. 1). Whilst affirmative action policies of successive governments have increased the share of so called 'Scheduled Castes' and 'Scheduled Tribes' in educational institutions and public sector employment, and there is evidence that occupational segregation is weakening in urban areas amongst some groups, across the board, 'Scheduled Caste' and 'Scheduled Tribe' households 'continue to experience poverty rates that are much higher than the rest of the population' (Gang et al 2012, p. 1).

In addition, notable gender disparities persist in the labour market, as is evident from the large gap between the labour force participation rates of men and women. The latest data show an increase in the labour force

participation rates of women in urban areas, but a continuing decline for rural women (Kelkar, 2013). Average participation rates for women now stand at 39.9% compared with 84.8% for men (Mitra & Verick 2013, p. 2). In rural and urban areas, among early labour market entrants, males are usually in casual wage employment, while their female counterparts tend to be self-employed (Mitra & Verick, 2013: p. 13).

In a recent review of the role of skills development in improving labour market outcomes for women, the Institute of Social Studies Trust (ISST) identified some of the major challenges for women. These included rigid occupational segregation; inequitable access for women in vocational education and training (VET); relatively low levels of education amongst potential women trainees; the lack of recognition of prior learning of potential women trainees; and the relatively high opportunity cost of learning for women (ISST, 2012). These issues are reflected in the relatively low participation rates of women in training. Whilst consolidated data for India does not exist, some reports suggest that female participation is as low as nine percent of training programs (e.g. ISST, 2012) as a result of cultural constraints which see parents hesitating, for example, to send their daughters to far away training centres which lack basic infrastructure such as separate hostels and toilets.

Attempts to increase workforce skills

Beyond the issues facing disadvantaged groups in the labour market, the sheer scale of India's challenge to improve the skills of its burgeoning labour force is significant. Whilst 12 million people enter the workforce each year (Federation of Indian Chambers of Commerce and Industry [FICCI], 2010), less that 10% have had access to training (OECD, 2011) despite the fact that 90% of jobs require vocational training (Confederation of Indian Industry [CII], 2009). Whilst National Sample Survey data is compromised by definitional issues, Mehrotra, Gandhi & Sahoo (2013) calculate that 'hardly 2 percent of the Indian workforce has formally acquired skills and only another 2.4 percent workers have some technical education' (2013, p. 2). Furthermore, the CII (2009), a major industry association, has estimated that only 6% of the workforce receives any form of workplace training.

The imperative of economic growth, combined with concerns over

the social consequences of failing to offer livelihood opportunities to its large young population, have however, led the Indian government to invest heavily in skills development and pursue new models to improve the quality and relevance of education and training. The Prime Minister's National Council on Skill Development set a target of training 500 million skilled individuals by 2022 pursuant to the 2009 National Skill Development Policy (NSDP). The NSDP intends to meet the 2022 target by expanding public institutions in rural areas; using innovative delivery models such as mobile and decentralised delivery; using skill development centres rurally to provide training information, guidance and delivery; involving local municipal bodies ('panchayats') and local government in skill delivery mechanisms; improving access to apprenticeships and raising female participation in training by introducing the Women's Vocational Programme (Ministry of Labour and Employment [MOLE], 2009).

However, decision-making in the skills system in India remains highly fragmented at both a national level, where 17 ministries and departments are involved in skills development (Planning Commission, 2008), and at regional level, where a similar breadth of structures and responsibilities exist. As noted by the Planning Commission, the 'sheer magnitude of scale' and 'duplicated or excessive bureaucracy' pose serious challenges to improving the quality and relevance of education and training in India (Planning Commission, 2009). In this environment, although reports of increasing skills demand are common (see for example CII, 2014), the supply of skills is failing to provide adequate access for those most disadvantaged in the labour market. Despite the efforts of both the National Skills Development Corporation (NSDC) to stimulate a private training market and the efforts of various government ministries to increase the number of publicly funded institutions (see Planning Commission, 2013), policy makers have only slowly come to realise the importance of also increasing the extent of workplace training.

Context for the 2012 research project on apprenticeships

In this context, apprenticeships in India are being recognised as an increasingly important way for young people to make the transition from school to work whilst at the same time assisting with

economic development. Whilst the Indian apprenticeship system is well established and supported by legislative and administrative arrangements that have been developed over several decades, by international standards it is underutilised, with inadequate incentives for employers, and insufficient structure and resources to link apprenticeships with career and vocational guidance services to the extent they exist (Comyn, 2014). Thus it is currently unable adequately to fulfil either economic development or social justice ends, both generally seen as aims of apprenticeship systems (Smith, 2010).

The high levels of youth unemployment and under employment in the formal economy are of course multiplied hugely when the informal economy is considered. Depending on whether or not agriculture is included, the informal economy represents more than 90% of economic activity in India, involving enterprises and/or workers that are not registered or covered by the various laws and regulations governing business and employment. In the informal economy, the major system for skills development is through informal apprenticeships, based on the traditional 'ustaad-shagird' system of helper and master craftsmen. Under these arrangements employers employ younger workers, sometimes only for very short periods of time, and train them on the job to carry out very specific tasks that are not necessarily expected to be transferrable to other work contexts. These informal apprenticeships are not regulated and apprentices generally do not receive any kind of formal certification.

Whilst the National Skills Development Policy of 2009 recognised the need to expand and strengthen both the formal and informal apprenticeship systems, specific reform proposals were not made until after the Planning Commission's Review of Apprenticeships (Planning Commission, 2009) led to a series of proposed changes to the 1961 Apprenticeship and 1992 Apprenticeship Rules.

However, little progress was made in advancing these reforms until 2012 when the ILO and World Bank commissioned the research reported in this paper to provide focussed technical assistance to India's Ministry of Labour & Employment (MOLE) to develop options for the reform of apprenticeships in the country. While the findings of the research were wide-ranging, the paper focuses on those findings particularly relevant

to social, economic and gender equity.

Research method

The methodology for the research included a first stage comprising case studies on eleven countries' apprenticeship systems (India itself, plus ten others), a cross-case analysis and the development of a framework for a model apprenticeship system. The second stage of the project involved more detailed analysis of the Indian system and the preparation of an options paper for India, which was then presented to stakeholders at a technical consultation in New Delhi.

The international country case studies were written by in-country experts (apart from two cases where such people could not be found), to ensure that the authors had a deep understanding of the countries' culture, politics and economics. Several of the experts were members of the International Network on Innovative Apprenticeship (INAP) and others were recommended by senior figures in international organisations. The experts were asked to validate their case studies with at least one academic from another institution and at least one senior government official. In their case studies they were asked to identify policy development in their countries that they considered helpful and those considered to be unhelpful; and to list current issues. The eleven countries included developed and developing countries in five continents, and India itself was included among the case studies. The choice of countries was partly guided by the preference of the funding body and partly proposed as a purposive sampling that would include representatives both of countries with more developed economics and those with less developed economies. The cross-case analysis was carried out to develop good practice principles and features of a 'model apprenticeship system' (Authors 1).

For the cross-case analysis the following guidelines and information sources were used to develop the structures and headings:

- The format of the case study guidelines, which was itself developed partly from the project terms of reference but also informed by the following two documents
    - ► The INAP memorandum on apprenticeship architecture

(INAP Commission, 2012);

►   Analysis of apprenticeships in the International Encyclopaedia of Education (Smith, 2010);

- The cross-country analysis in the European Commission report on apprenticeship supply (European Commission, 2012); and

- An apprenticeship life-cycle model developed in an Australian study (Smith, Comyn, Brennan Kemmis & Smith, 2009) to describe the progression through an apprenticeship for the individual apprentices.

The cross-case analysis drew together data from the countries using a thematic approach and simple data display techniques (Miles & Huberman, 1994). The analysis covered both systemic issues and operational matters relating to 'the life cycle of the apprentice'. A matrix was developed from the country experts' authors' responses to a section on apprenticeship systems' issues, strengths, weaknesses and learning from policy developments. The authors worked with the data to produce further analysis to develop a model apprenticeship framework. The data were then further reduced to develop an identification of the features of a model apprenticeship system, and proposed measures of success and associated challenges, derived from the data.This framework consisted of the following features:

- A set of principles under ten major headings (listed below, under 'Findings');

- A listing of possible measures of success under four major headings (engagement, quality, outcomes and public policy), and associated challenges; and

- Factors to be considered when expanding a country's apprenticeship system.

The information and data generated in the first phase of the project were then used to generate a draft Options Paper for the Indian apprenticeship system. The analysis was mapped against identified problems in the Indian system assisted by an analysis of four major reports on apprenticeship and telephone interviews with three key informants in the Indian system recommended by the ILO. The Options

Paper also attempted to evaluate the efficacy and workability of each option using all the data gathered during the other phases of the project. The draft Options Paper was presented at a Technical Consultation of around 80 national stakeholders in New Delhi in September 2012, with suggestions for major change and minor change associated with each of thirteen options. Feedback was gained from groups of participants who each considered a grouping of three or four options. The feedback was used to finalise the Options Paper (Authors 2) and identify which options gained widespread, limited or no support from stakeholders. It was recognised that, realistically, those which gained no support would be unlikely to be progressed.

For this paper, the authors have used the data generated by the methods described above to provide information about the current and potential capacity of the Indian apprenticeship system to create conditions for greater equity and social justice.

Findings

Findings of the project as a whole

The cross-case analysis led to the proposition of a series of principles that underpin a 'model apprenticeship system', under ten major headings. These headings were:

1. Occupational coverage

2. Participation

3. National government structures

4. Stakeholders

5. Quality training providers

6. Employer responsibilities

7. Simplification

8. Financial and other incentive

9. Provisions for the apprentice

10. Support for employers and apprentices

Given that the focus of this paper is on equity issues, a brief overview of the propositions relating to equity follows. Among the propositions that would lead to greater equity, it was recommended that apprenticeships should be available in all industries and in a range of occupations, particularly those typically undertaken by women as well as men. It was argued that a systematic approach to adding occupations to the list of apprenticed jobs would help to secure equity in this area. It was proposed that apprenticeships should be open to people of either gender, of all ages, and in rural as well as urban areas; and that mature aged people should be able to enter apprenticeships without formal school qualifications. Disadvantaged or disabled people needed to be helped into apprenticeships via special incentives for employers. Finally, it was proposed, on the demand side, that barriers for entry to the system should be as low as possible for employers, while retaining quality; and that that there should be support for small and medium enterprises employing apprentices.

It should be noted that the wide variety of arrangements among the case study countries on equity-related matters indicated a need for reform elsewhere besides India; but, equally, the project's 'solutions' to equity issues were each found amongst arrangements in at least one of the country case studies.

Findings about India

The research showed that India has only about 300,000 apprentices compared with a labour force of nearly 500 million people, which reflects a proportion of less than 0.01% of the workforce. Even when it is considered that up to 90% of India's economy is informal, the proportion of India's formal workforce that are apprentices is only 0.1%. This rate remains however a small proportion when compared with other countries that the analysis defined as 'small system' countries. The country case studies showed that relatively 'small systems' such as the United States, had a participation rate of 0.3% of the workforce, and 'large systems' such as Germany and Australia had around 3.7% of their workforces participating in apprenticeships. It became apparent from analysis of the Indian reports, the telephone interviews, and the feedback at the workshop, that the Indian system was based firmly on the post-war English apprenticeship system, with a great deal of

bureaucracy often incomprehensible to employers and those outside the system. It was confined to a limited number of occupations which were mostly (but not entirely) traditional trades undertaken mainly by men; although IT had been added to the list of apprenticeships due to the initiative of a major employer. In this respect it was similar to the Australian system prior to the 1985 Kirby report, which led to the establishment of traineeships (Kirby, 1985). Moreover, physical fitness requirements made entry to some apprenticeships difficult for people with disabilities. It was also found that apprenticeship, and vocational education and training (VET) in general, was seen as a relatively undesirable pathway for young people in secondary education, compared with an academic route into higher education.

It had been recognised in the past few years that there was a clear imperative for reform in the Indian apprenticeship system. There was fast growing demand for newly skilled members of the workforce and a parallel recognition that issues of social justice and equity, particularly in relation to gender, need to be addressed in new and concerted ways.

Four significant reports and policy documents were analysed as part of the research; collectively these illustrate the growing feeling that change was needed.

Report 1: *Ministry of Labour and Employment (MOLE). National Policy on Skill Development (2009). Government of India: New Delhi.* The focus of the policy statement was not only apprenticeships, but more broadly on the development of the national skill system. The document identified a number of problem areas including the under-participation by women, rural and regional people, minorities, people with disabilities, and people facing personal economic difficulties and child labourers. The recommendation from the Ministry to address these problems included an expansion of the formal apprenticeships system to 1 million participants, revisions of the Apprenticeship Act 1961 and particular measures to improve access for women, people with disabilities, and other disadvantaged groups. The policy also proposed the introduction of 'dual-type' apprenticeship programmes that combine on and off the job training, as apprenticeship in India, following initial training, is carried out entirely by companies. In the informal apprenticeship system, the report recommended that there be a greater

degree of social protection introduced for apprentices.

Report 2: *Planning Commission Sub- Committee report on re- modelling India's apprenticeship Regime* (2009). This report set out to identify why employers were averse to taking on apprentices, to suggest methods for overcoming difficulties, and to increase the attractiveness of apprenticeships to potential applicants. The comprehensive list of 'problem areas' was also matched with a set of recommendations on how these problems could be addressed. This report did not specifically focus on equity groups.

Report 3: *Akhilesh, commissioned study on apprenticeship Law in India. (2010).* This comprehensive study of the Apprentices Act 1961 and other legislation examines the ways in which the regulatory framework surrounding apprenticeships impacts on young people and the skill development for youth. The conclusions reached in this report echo those of the preceding two reports and it includes a set of recommendations for reforms. This report also focuses on the issue of gender equity and the disparity between the genders in the apprenticeship profile. "Many manufacturing firms state outright that the women apprentices are not suitable to work in their firms. In this new era where women are equally empowered in nearly all fields of work, the Apprentices Act should also take into consideration the role of women in the development of the society and country as a whole" (p. 97). The analysis in this report also shows that of the very small number of people taking up formal apprenticeships "we can observe that about 10% came from a scheduled caste, 1% from scheduled tribes, 7% from minorities, 0.23% of physically challenged people and 20% (were female)" (p. 97).

This report concluded with a long list of suggested changes to Apprenticeship legislation including the increased coverage of the Act to include more industry areas; the removal of geographic boundaries; the introduction of reserved places for women; the creation of a fund to promote apprenticeships and better working and learning conditions for apprentices.

Report 4: *Confederation of Indian Industries (CII) submission on the Apprenticeship Act, for Ministry of Labour and Employment consultations (2011).* This submission provides recommendations

for the reform of the Apprenticeship Act and focuses on setting targets for apprenticeship numbers, the industry areas to be included and the improvement in the conditions under which apprentices are employed. As might be expected from an industry body, the submission also advocated for the removal of some of the regulation around apprenticeships, such as removal of special labour laws for apprentices. The suggestions most relevant to equity groups concerned easier methods for adding occupations to the designated list of apprenticeships, and the availability of apprenticeships in all geographic areas.

Options presented to Indian stakeholders

Based on the findings of the research and the analysis of the significant reports, 13 options for the Indian apprenticeship system were presented to stakeholders at the technical consultation. These were divided into four themes so that groups of stakeholders would each discuss three or four related options to. In this paper we report primarily on Theme 3 'Increase participation', as this theme related most closely to the topic of the papers. The other themes were: 'Simplify access'; 'Improve training quality'; and 'Harmonise the system'.

In developing the options related to increased participation we incorporated the equity-related principles from the international cross-case analysis.

The table to follow summarises the proposals developed by the authors, and the feedback received at the technical consultation in New Delhi. For each option we proposed a major change and a minor change if the major change appeared unpalatable or unworkable.

Table 1: *Overview of options to increase participation in apprenticeships in India*

Option	Summary of major change proposed (Selected items relevant to equity)	Summary of minor change proposed (Selected items relevant to equity)	Feedback from stakeholders
Cover more of the economy	Responsibility allocated to a body systematically and regularly to scan the environment to ensure that the list of occupations broadly reflects the structure of the economy, and to manage processes for adding new occupations and removing unnecessary ones.	Quicker processing of applications for new occupations through a minimum service guarantee from the Directorate General of Employment and Training (part of the Ministry of Labour and Employment), and acceptance of proposals from any stakeholder.	Need to prioritise certain occupations. Need for a national 'live' list.
Provide financial incentives to participants, enterprises and training providers	Change the stipend to a proportion of minimum wage for the occupation; Introduce financial incentives for employers – on employment, completion and retention of an apprentice, and for employing disadvantaged apprentices; Ensure major government infrastructure projects budget for payment of a proportion of apprentices' wages to ensure apprentices are employed;	Introduce financial incentives for employers – e.g. on employment and completion of an apprentice, and for employing disadvantaged apprentices.	Financial incentives for employers should be dependent on performance

Introduce non-financial strategies to increase participation among more people	Open apprenticeships to people of all ages above 14 years (in non-hazardous trades) and without minimum educational qualifications (with language, literacy and numeracy support); publicity campaign, accessible web presence, and school careers education. Improved information about occupations in demand through better linking of apprenticeship information to labour market statistics.	Undertake a publicity campaign, develop an accessible web presence, and highlight apprenticeships in school careers education.	Stakeholders supported opening to people of all ages, but not the removal of the education requirements.

It should be noted that when the feedback at the technical consultation was analysed, the first two options in the table above were generally supported, while there was little enthusiasm for the third option.

Despite clear advice from the major industry stakeholders during the workshop and through independent submissions to the government (see for example CII [2011], one of the four reports discussed above), the government did not act on any of the recommendations listed in Table 1 in either a revised Apprenticeship Act or Apprenticeship rules until July 2014, when drafts for comment were circulated internally and are soon to be made available for public review (MOLE, 2014).

Discussion and conclusion

Each of the reports analysed for the second stage of the project were predicated on the premise that the creation of greater levels of equity

and social justice would be the outcome of a reformed and more effective apprenticeship system. Thus while equity groups are not explicitly mentioned in all of these reports, the capacity of apprenticeships to improve social justice and equity for all groups was an implicit thread. It was assumed that improvements in the operation of the formal and informal apprenticeship systems will not only contribute to the creation of a more skilled workforce but will also create conditions for "a better life" for Indian workers. As a country with great disparity of income and opportunities this issue runs through all Indian public policy.

The options advanced as part of the project were similarly designed to meet equity goals as well as provide economic benefits. The first of the three options described in Table 1, would, if adopted, immediately open up the possibility of apprenticeships to women, whose preferred occupations are poorly represented in the current system, and to people in rural areas, since the occupations currently listed are predominantly urban-based. The second option would provide incentives to employers to take on disadvantaged people as apprentices, which would encourage employment of people with disabilities and from Scheduled Castes and Scheduled Tribes. The third option in Table 1 was not strongly supported by stakeholders at the technical consultation. While expansion to adults was supported, albeit weakly (opening up the possibility of 'second chance' apprentices), removal of the education requirements, which was not supported, would have opened up access to groups who fared poorly in the current secondary education system.

One problem that remains is the size and strength of the informal economy in India and the problems that this creates for apprenticeship systems. The informality of much working life in India compromises the capacity of apprenticeships to deliver greater levels of social justice and equity, along with many other issues created by the social political, economic and religious barriers endemic in India. The resistance of many to regulations and the rule of law is exemplified by current extraordinarily low levels of employer participation in apprenticeship, despite the fact that there is, in fact, a mandated requirement for employers of a certain size to take on apprentices. Consequently, it remains to be seen whether a reformed Indian apprenticeship scheme will translate to improved access and labour market outcomes for the most disadvantaged in India. As with other developing countries, in

India additional regulation or requirements could serve to prevent employers from joining the formal apprenticeship system.

What is likely to be implemented? As mentioned earlier, a new draft Apprenticeship Act is currently available for consultation. Whilst there was a feeling that MOLE had not satisfactorily responded to the calls for change with its revised draft apprenticeship act and rules, it is clear that with a 'pro-business' government, that came to power in May 2014, led by new Prime Minister Narenda Modi, the momentum for change has increased and hope remains for a more thorough and internationally relevant review of the apprenticeship system. Whilst a final revised draft of the apprenticeship act and rules has thus not yet been agreed upon, the MOLE draft includes at least some measures to increase participation. Whilst the draft is silent on the use of incentives, they do propose improved links with vocational guidance systems and employment services to facilitate increased commencements and participation by disadvantaged groups in the labour market. The draft also targets increased access by reducing the size of enterprises able to employ apprentices and by including provisions that allow employers to effectively establish an apprenticeable trade without external review. Whilst this latter proposal may increase access in absolute terms, it effectively gives employers the ability to retain workers as apprentices for longer periods and at different occupational levels within an enterprise and in doing so, could weaken quality employment, mobility and skills development through apprenticeships, which could in fact have adverse equity implications. Whilst it is expected that these measures will be contested, it is likely, at least, that the number of apprentices in India will increase as a result of the new Act and rules.

Acknowledgements

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Policy and barriers related to implementing adult e-learning in Taiwan

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The work quality of public servants direct affects a country's administrative performance, and the Taiwan government has recently invested a considerable amount of funds in constructing e-government learning platforms and developing digital courses to provide all public servants with sufficient on-the-job training and enhance the quality of human resources. Therefore, the circumstances under which public servants use e-government learning platforms warrant investigation. In this study, questionnaires were used to collect data for quantitative research, and a theoretical model was created to clarify the impact of 'Barrier Factors' and 'Policy Factors' on e-government learning. These factors have been examined inadequately in previous research on the theory of e-learning behaviour. The results presented here show that Barrier Factors and Policy Factors strongly influence the willingness of public servants to use e-learning systems, and these factors explain more than 80% of the variance in users' behavioural intention. These results revealed the characteristics of the research participants,

and the findings can be used as a reference in future studies and by management agencies responsible for providing e-government learning. Furthermore, these results might facilitate further research on and the practice of adult e-learning.

Keywords: *e-learning, adult learning, barrier factors, public servants, behavioural intention, structural equation modelling (SEM)*

Introduction

Over the past 10 years, Internet use has spread rapidly, influenced the manner in which people teach and learn (DeLacey & Leonard, 2002), and changed almost every aspect of peoples' lives. The education sector has not been immune to these changes, and technology has transformed classroom practices and learning processes (Kinshuk, Huang, Sampson, & Chen, 2013). Most prior studies on e-learning have emphasised learners' acceptance and use of e-learning platforms (Kao & Tsai, 2009; Liaw, Huang, & Chen, 2007). These studies focused on exploring various information technologies that were adopted by students and teachers and the features of e-learning. However, most of those studies examined and analysed e-learning as a part of instruction in schools (Chang & Tung, 2008; DeLacey & Leonard, 2002; Kao & Tsai, 2009). Thus, researchers have suggested that future research explore the disparities in learning amongst adults and full-time students (Chiu & Wang, 2008; Tsai, Shih, & Feng, 2008), and whether the motivations and methods for adult learning and classroom-based education are distinct is incompletely understood. Explaining developments and trends in adult education, previous research has revealed that national surveys that focus on the distribution and extent of adult learning provide useful information for policymakers, adult education providers, and the scholarly community (Lai & Wu, 2011). This topic has rarely been investigated, and Taiwan governments' use of the Internet to promote e-learning has been studied even less (Shyu & Huang, 2011). In this study, we evaluated public servants because their work quality directly affects the administrative efficiency of a nation. In addition, because of the high costs of e-government learning programs, the effectiveness of these programs must be evaluated.

Human resource management is a critical task of the public sector. High-quality public servants can be produced only through appropriate training, and e-learning curricula provide public servants with various course selection choices and participation opportunities, positively affecting public sector training and improving the capabilities of public servants. No comprehensive reference framework outlining the key factors that affect the behavioural intention of public servants to use e-learning systems has been developed. National policy leadership is required to unify efforts to promote adult learning (Nelson, Brennan, Berlin, Crombie, & Morris 2010); therefore, governments must understand the needs of learners and the challenges they encounter in using e-learning systems, in order to increase the use of these learning systems by designing curricula that meet learners' demands and usage situations that reduce the barriers encountered by learners. Thus, the difficulties public servants encounter when using e-government learning systems and the policies that governments can adopt to address these difficulties require investigation.

Adult students engaging in learning activities in a social context differ considerably from students in a school context. Specifically, these two types of student exhibit differences in purpose, motivation, work limitations, available time, and so on (Chang, Wu, & Lin, 2012).

The purpose of this study was to understand the challenges encountered by public servants who use an e-government learning system and to examine the effect of organisational policies on learners' willingness to use the system. The results of this study can therefore be used as a reference for future research and policy planning conducted by training organisations or agencies that offer adult e-learning.

Literature Review and Hypothesis Development

e-Learning, e-Government Learning, and Adult e-Learning Barriers

According to The American Society of Training and Development (ASTD), e-learning encompasses a wide range of applications and processes, such as web-based learning, computer-based learning, virtual classrooms, and digital collaboration as well as the transmission of curriculum content through the Internet, LAN/WAN, audio tapes and videotapes, satellite broadcasts, interactive TV, and CD-ROM (ASTD,

2005). Clark and Mayer (2003) defined e-learning as a method for transmitting teaching through computer-based media such as CD-ROM, the Internet, and intranets.

E-government learning refers to government-promoted learning that involves using network technology to improve the effectiveness of knowledge sharing and lifelong learning (Shyu & Huang, 2011). The Taiwan government recently developed several e-government learning platforms including HRD e-learning, which was established by the Directorate-General of the Personnel Administration, Executive Yuan mainly to train national public servants (as well as registered members of the public) throughout Taiwan. Established by the Taipei City Government, Taipei e-Campus is used primarily to train Taipei City Government personnel (as well as registered public servants from other agencies and the public). In addition, various other departments and local governments have established learning platforms. E-government learning is expected to provide broad and diverse learning courses designed to improve the quality of public servants and welcome public participation, thus facilitating the creation of a lifelong learning society.

Public servants who live and work with the double burden of having both a job and a family often feel that e-learning is beyond their grasp. Therefore, taking the time to learn requires either extrinsic or intrinsic motivation.

The barriers to e-learning include a lack of time to study, infrastructure, attitude, culture, physical unsuitability, lack of familiarity with e-learning methods, interruptions experienced during participation in courses, failure of e-courses to satisfy expectations, unattractive courses, and so on (Mousavi, Mohammadzadeh Nasrabadi, & Pezeshki-Rad, 2011; Mungania, 2003; Ali & Magalhaes, 2008; Gosling & Westbrook, 2004; Zielinski, 2000; Rossett, 2000). All of these factors can be learning obstacles.

If managers of e-government learning platforms were to recognise some or all of these user challenges and help resolve them, then overall e-government learning participation and satisfaction would likely increase.

Relationship between Attitude Towards Use and Behavioural Intention

Venkatesh, Morris, Davis, and Davis (2003) defined "Behavioural Intention" as the intensity of a person's willingness to engage in a specific behaviour, and the attitude towards using technology is defined as the overall affective reaction that a person exhibits towards using a system. Karaali, Gumussoy, and Calisir (2011) confirmed that user attitude significantly affects e-learning intention. Moreover, Liaw and Huang (2003) and Liaw, Chang, Hung, and Huang (2006) confirmed the effects of attitude on behavioural intention.

This study adopted the aforementioned perspectives and employed relevant scale items as a reference for questionnaire development; subsequently, these items were adjusted on the basis of the characteristics of e-government learning that are specific to public servants. The following hypothesis was proposed:

H1: Attitude Towards Use is positively correlated with public servants' Behavioural Intention to use e-government learning.

Relationships between Barrier Factors and Attitude Towards Use and Behavioural Intention

To execute policies effectively, resistance and barriers that affect policy implementation must be eliminated. Mousavi, Mohammadzadeh Nasrabadi, and Pezeshki-Rad (2011) investigated the barrier and inhibitor factors for implementation and development of e-learning in Payame Noor University, and identified seven factors including incompatibility of method and content, barriers related to access-skill, attitude, culture, credit and incentive, infrastructure, and incorporation of e-learning into the traditional educational system. Ali and Magalhaes (2008) investigated the barriers to implementing e-learning in companies and compiled the following key factors: cost, workload and a lack of time, insufficient managerial support, technological barriers, language barriers, and aversion to change. Gosling and Westbrook (2004) demonstrated that a lack of time is the most commonly reported reason for not using e-learning systems. According to Zielinski (2000) and Rossett (2000), the completion rates for e-learning training are low because of a lack of motivation, a lack of work relevance, poorly designed curriculum software, learning environments, the nature of

curricula, and learner preferences.

Mungania (2003) investigated e-learning barriers by studying 875 employees of U.S. and international organisations and proposed five primary features, namely time-management problems, adult pride, language problems, attitude towards e-learning, and learning styles or preferences. The time barriers included a lack of time to study, general problems in managing time, overcommitment to roles and responsibilities, and interruptions whilst studying. Content suitability barriers were an insufficient relevance of courses to work, poor course content, ambiguous course content, and the failure of course content to meet expectations.

According to the circumstances of Taiwanese public servants, this study examined specific items from the aforementioned studies, such as interruptions and interference during the learning process, the failure of course content to meet expectations, a lack of time to study, and unsuitable personal physiological or physical factors. "Barrier Factors" were defined as resistance to or situations affecting the use of an e-government learning system and were classified as "Personal Barriers", "Situational Barriers", and "Content Suitability Barriers". The following hypotheses were proposed:

H2: Barrier Factors are negatively correlated with the Attitude Towards Use of public servants in adopting e-government learning.

H3: Barrier Factors are negatively correlated with public servants' Behavioural Intention to use e-government learning.

Relationships between Policy Factors and Attitude Towards Use and Behavioural Intention

Policies are executed to achieve established administrative objectives. Previous research has shown that governmental agencies can act as key points of reference because their expectations affect personal acceptance of innovation (Lynne, Casey, Hodges, & Rahmani, 1995). Hardgrave, Davis, and Riemenschneider (2003) discovered that social pressure influences Behavioural Intention strongly and directly. By studying student willingness to participate in online forums, Yang, Li, Tan, and Teo (2007) determined that pressure from "significant" people in

students' lives encourages student participation in forums. Law, Lee, and Yu (2010) discovered that social pressure and competition are strongly and positively correlated with the effectiveness of e-learning.

Delgado (2009) confirmed that rewards are positive stimuli that affect daily behaviour. Grant (1989) claimed that personal motivation to learn increases only when learning is combined with rewards. Rosenberg (2001) asserted that incentives and rewards provided by organisations can increase the willingness of employees to participate in e-learning. Law, Lee, and Yu (2010) discovered that rewards and praise stimulate and encourage learning the most effectively. In addition, Jenkins (2001) asserted that combining appropriate rewards and praise can be a primary driving force in learning.

In summary, governmental (or affiliated organisational) pressure and reward policies can affect the willingness of public servants to use e-government learning systems. Therefore, relevant items from the aforementioned studies, such as policy pressure from government regulations mandating participation in e-government learning, organisational requirements or encouragement, and reward policies, were examined. "Policy Factors" were defined as pressure or reward policies affecting the use of e-government learning systems and were classified as "Incentive Policies" and "Pressure Policies". The following hypotheses were proposed:

H4: Policy Factors are positively correlated with the Attitude Towards Use of public servants in adopting e-government learning.

H5: Policy Factors are positively correlated with public servants' Behavioural Intention to use e-government learning systems.

Research Model

Based on the literature review and the purpose of this research, a research model was constructed using four constructs: Barrier Factors, Policy Factors, Attitude Towards Use, and Behavioural Intention.

Figure 1. Research model of this study (summarized by the author)
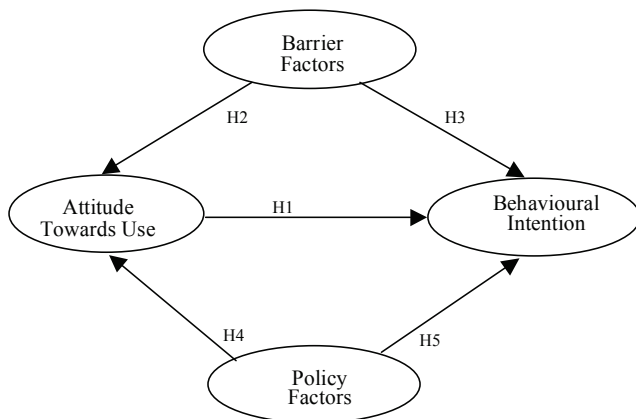
Methods

Participants

This study examined the factors that affect the use of e-government learning systems by public servants in Taiwan. Because public servants were not required to participate in e-learning, this study was considered a study of individual behaviour and adopted a random sampling method; thus, the questionnaire was distributed to a diverse sample during the sampling period, preventing the sampling ratio from being dissimilar because of variations in sectors or functions. HRD e-learning and Taipei e-Campus are learning platforms primarily used by public servants in central government agencies and Taipei City Government. A survey was administered over 1 month to public servants who had used e-government learning in Taiwan. The online surveys were conducted to examine HRD e-learning and Taipei e-Campus. Questionnaires containing incomplete answers were excluded, and 423 valid questionnaires were collected.

Instrument

During the pre-study, data were collected using semi-structured interviews to determine and summarise the key factors that influence

the intention of public servants to use e-government learning systems, including attitude, barriers, pressure, and incentives. These findings enabled us to further explore the literature and develop a research model. In other words, this research model was derived from information obtained from semi structured interviews and a literature review. A literature review was conducted to identify theories relevant to the research, and the questionnaire was used to collect data for quantification. Theoretical applicability was then verified, and practical suggestions were proposed to resolve problems. The first portion of the questionnaire developed in this study was designed to measure factors related to the research model structure, and the second portion was used to collect respondents' personal information. Except for the questions related to personal information, all items were ranked on a 7-point Likert scale. Appendix A describes the questionnaire items in detail.

To ensure the reliability and validity of the measurement tools, this study adopted scales developed previously (Hsieh, Rai, & Keil, 2008; Law et al., 2010; Mungania, 2003; Venkatesh et al., 2003, 2008; Wang, Wu, & Wang, 2009). After the questionnaire items were revised according to the topics and participants of this study and then translated and back translated, several public servants were invited to complete a pretest. To examine the reliability of the questionnaire further, 125 additional public servants were asked to complete a pilot test, which entailed administering a revised version of the pretest questionnaire. SPSS software was used to analyse the items in the returned questionnaires. The factor loadings of all items exceeded 0.5 and, thus, were acceptable; therefore, the full questionnaire was employed in formal testing.

To determine the robustness and reliability of the constructs measured using the scale in this study, cross validation was employed according to the recommendation of Anderson and Gerbing (1988).

The data sample was randomly divided into two groups by using SPSS 12.0. The first group (220 samples) was subjected to exploratory factor analysis (EFA) to establish the research model, and the second group (203 samples) was subjected to confirmatory factor analysis (CFA) for verification. Finally, all 423 samples were subjected to structural equation modelling (SEM) analysis to determine the overall distribution

of the study samples.

EFA was conducted to compress multiple observed variables into several refined variables. Principal factor analysis was used to extract the key factors, and Varimax was used to determine the primary items for measuring various factors and, ultimately, common factors with an eigenvalue greater than 1 were selected. Three barrier factors with an eigenvalue greater than 1 were extracted from nine items after factor analysis. The three barrier factors, which had an accumulated explained variance of 68.170% and individual item factor loadings that were all greater than 0.5, were considered Content Suitability Barriers, Personal Barriers, and Situational Barriers according to the literature. Two policy factors were extracted from six items after factor analysis; these two factors had an accumulated explained variance of 79.204%, and all individual item factor loadings were greater than 0.5. These factors were considered Pressure Policies and Incentive Policies according to the literature.

To confirm the suitability of the factor structure obtained using EFA, the second group of data (203 samples) was subjected to CFA.

Results

Descriptive Analysis

Of the 423 respondents who submitted valid samples, 193 were men (45.6%) and 230 were women (54.4%). Table 1 provides additional information regarding the participants.

Table 1: *Frequency distribution of basic data*

		Amount/ Frequency	Percentage	Cumulative Percentage
1. Gender	1. Male	193	45.6	45.6
	2. Female	230	54.4	100.0
2. Age	1. 29 or younger	32	7.6	7.6
	2. 30-39	114	27.0	34.5
	3 . 40-49	178	42.1	76.6
	4. 50 or older	99	23.4	100.0

3. Education level	1. High school or vocational	23	5.4	5.4
	2. Undergraduate	266	62.9	68.3
	3. Graduate or above	134	31.7	100.0
4. Job Position	1. Manager	87	20.6	20.6
	2. Non-manager	336	79.4	100.0
5. Learning autonomy	1. Autonomously	276	65.2	65.2
	2. Non-autonomously	147	34.8	100.0

Analysis of the Measurement Model

We used the SEM method to verify the construct validity of the proposed model and our hypothesis; we then tested the goodness of fit of the research model. In addition, we used CFA (an analytical method involved in SEM) to evaluate the construct reliability and validity and to determine whether the measurement tools exhibited between-group invariance. Thompson (2004) indicated that, before structural model analysis is performed using SEM, the measurement model must be analysed to ensure that it accurately reflects the study dimensions and factors.

Kline (2005) proposed a two-step modelling method in which the measurement model is tested prior to structural model analysis. The second step in the analysis is initiated only when the measurement model achieves an acceptable goodness of fit, enabling a complete analysis of the structural equation model.

Amos 7.0 (a programming language that is easy to use and enables easy comparing, confirming, and refining structural equation models) was used to test and verify the fit of the research model. During data analysis, when the internal maximum likelihood method is used to estimate parameters, the data must conform to the assumptions of a multivariate normal distribution. Moreover, the sample size must be at least 100–150 before the internal maximum likelihood method can be applied (Ding, Velicer, & Harlow, 1995). With 423 valid samples,

this study conformed to this standard. Furthermore, the skew and kurtosis coefficients must be between +2 and -2 to conform to the normal distribution test proposed by Mardia (1985). Anderson and Gerbing (1988) and Williams and Hazer (1986) recommend that every research construct and measurement item be subjected to Cronbach's α coefficient analysis and that every research construct and measurement item be subjected to CFA during the first stage of SEM analysis to determine the reliability, convergent validity, and discriminant validity of each construct.

Analysis of the Structural Model

At the second stage, the structural model should be analysed to verify each hypothesis in the conceptual model. Structural model analysis involves analysing the research model fit and explanatory power of the entire model.

Many indices can be used to evaluate the fit of a model, but no single index can serve as the only standard for judging the quality of a model. A number of descriptive-fit indices have been proposed mostly in the 1970s and 80s that provide a family of fit measures useful in the process of assessing model fit.

Bollen (1989), Bollen and Stine (1992), Etezadi-Amoli and Farhoomand (1996), Bentler and Bonnett (1980), Bentler (1990), and Hair, Black, Babin, Anderson, and Tatham (2005) were referenced in selecting the following indices to evaluate the fit of the entire model: χ^2/df, the goodness of fit index (GFI), adjusted goodness of fit index (AGFI), normed fit index (NFI), nonnormed fit index (NNFI), comparative fit index (CFI), and root mean square error of approximation (RSMEA). (1) $\chi^2/d.f.$ should be less than 5; (2) GFI should be more than 0.8; (3) AGFI should be more than 0.8; (4) NFI should be more than 0.9; (5) NNFI should be more than 0.9; (6) CFI should be more than 0.9; and (7) RMSEA should be less than 0.08. In general, the closer the observed data is to the theoretical model, the better the fit of the model, and the easier it will be to satisfy the thresholds of the above indices. If the threshold of an index cannot be met, it means the model must be modified.

Table 2 lists the results. All indices achieved their respective standards, indicating that the research model fit the collected data well.

Table 2: *Fit indices*

| Index	Fit	Literature Source	Research Model
χ^2/d.f.	1-5	Bollen (1989)	3.280
GFI	> 0.8	Etezadi-Amolo and Farhoomand (1996)	0.882
AGFI	> 0.8		0.848
NFI	> 0.9	Bentler and Bonnett (1980)	0.911
NNFI(TLI)	> 0.9	Bentler (1990)	0.925
CFI	> 0.9	Hair et al. (2005)	0.936
RMSEA	< 0.08		0.073

Hypothesis Testing

The path relationships between constructs were estimated using Structural Equation Modelling, and a standardised coefficient was adopted for the path values. This analysis verified that all hypotheses in the research model achieved a significance level of $\alpha = 0.001$, evidencing that the research model fit the collected data accurately. Table 3 and Fig. 2 show the path-analysis coefficients for the structural model used in this study. The estimated squared multiple correlation (SMC) value for the structural model demonstrated that the independent latent variables explained 50.8% of the variance in Attitude Towards Use and 81.9% of the variance in Behavioural Intention, exhibiting a good explanatory power.

Table 3: *Hypothesis verification*

Hypothesis Number	Path Value	Result
H1: Attitude Towards Use →Behavioural Intention	0.674***	support
H2: Barrier Factors →Attitude Towards Use	-0.197***	support
H3: Policy Factors →Attitude Towards Use	0.685***	support
H4: Barrier Factors →Behavioural Intention	-0.138***	support
H5: Policy Factors →Behavioural Intention	0.260***	support

$* p < .05, ** p < .01, *** p < .001$

Figure 2. Path analysis of the research model (summarized by the author)
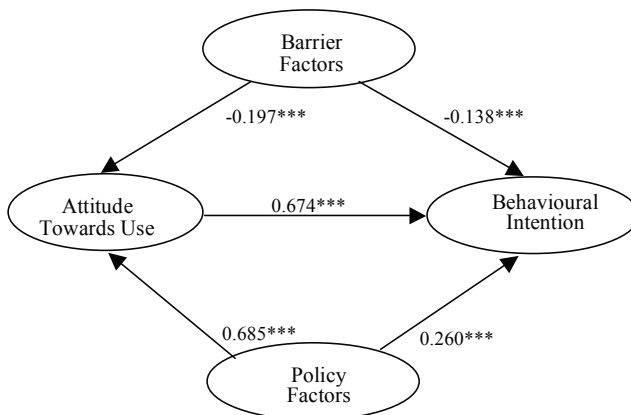
Discussion

In this study, the literature was reviewed to identify theories relevant to the research, and questionnaires were used to collect data for quantification. Theoretical applicability was verified and practical suggestions were proposed to resolve problems.

The cross validation approach was adopted to increase the robustness and reliability of the qualities measured according to the Likert scale. The collected data were divided randomly into two sample groups. The first group was subjected to EFA to construct a research model, and the second group was subjected to CFA to test and verify the model. This research process was particularly rigorous.

The estimated SMC value for the structural model demonstrated that the independent latent variables explained 50.8% of the variance in Attitude Towards Use and 81.9% of the variance in Behavioural Intention. All indices used for evaluating the fit of the entire model, including the χ2/d.f., GIF, AGFI, NFI, NNFI, CFI, and RMSEA, achieved established standard values, indicating that the model fit the observations accurately.

The dimensions of Barrier Factors were Personal Barriers, Content Suitability Barriers, and Situational Barriers, and the dimensions of Policy Factors were Incentive Policies and Pressure Policies. Numerous structural model standardised coefficients revealed the key factors that affect the use of e-government learning systems by public servants. Behavioural Intention was affected by Attitude Towards Use (0.67), Policy Factors (0.26), and Barrier Factors (-0.14); the effects of Policy Factors were revealed by Incentive Policies (0.97) and Pressure Policies (0.62), and the effects of Barrier Factors were shown by Personal Barriers (0.75), Situational Barriers (0.64), and Content Suitability Barriers (0.68). The Behavioural Intention of users was positively influenced by Attitude Towards Use and Policy Factors and negatively influenced by Barrier Factors, and Attitude Towards Use was positively influenced by Policy Factors and negatively influenced by Barrier Factors. Personal Barriers, which include a lack of time to study and personal physical unsuitability, exerted the greatest impact of the Barrier Factors. Situational Barriers included unfamiliarity with e-learning methods, interruptions in courses, and the inability to

complete courses. Content suitability barriers included the failure of e-courses to meet expectations and unattractive courses, which were learning obstacles. It shows that: The Incentive Policy factor is a more effective policy than the Pressure Policy factor; governments should adopt policies to encourage the Personal Barrier factor. The Situational Barrier factor might be improved using advanced information technology; governments should dedicate effort to improving the Content Suitability Barrier factor.

Attitude Towards Use significantly affected the Behavioural Intention, indicating that authorities who adopt e-government learning systems must heavily promote such systems to enhance the positive attitudes and use behaviours of public servants. Because public servants have a high level of job security, receive limited promotion opportunities, are constantly busy, and must support their families, they cannot typically undergo undisturbed learning to expand their skills. If these public servants are not pressured or offered proper incentives, then their learning intention is likely to remain low. Currently, the Personnel Administration requires public servants to complete 14 hours of e-learning per year as a reference for annual performance appraisals. Because there are no punishment provisions, no absolute force is imposed; however, this requirement still plays a role in policy effects.

The government can motivate public servants to take learning courses by including an annual learning hour count as a criterion for employee appraisal or by rewarding public servants who take learning courses with commendations, bonuses, or vacation days. Such incentives would facilitate enhancing learning intentions.

The aforementioned results suggest that the authorities responsible for providing e-government learning must adopt appropriate policies to strengthen learners' intention to use e-learning systems. Factors that interfere with the learning process are the primary barriers to learning in offices; therefore, dedicated learning environments and times should be planned to ensure that public servants are not disturbed whilst learning. Online counselling must be increased to enhance public servants' digital learning and their confidence in participating in digital learning, and incentives should be offered to increase participation in digital learning. Moreover, digital learning platforms and digital

course content must be strengthened to meet the requirements of public servants. Another crucial barrier cited was a lack of time, which might reflect excessive workloads or might only be an excuse; therefore, regulatory authorities should investigate the underlying reasons for this barrier in depth.

Conclusion

The purposes of this study were to identify the factors that promote and hinder participation in e-learning by public servants and to understand the learning behaviours specific to public servants.

To increase the use of e-government learning platforms, this study offers the following practical recommendations to agencies that manage e-learning for public servants:

1. Reduce the factors that cause learning barriers: Interruptions and interference during the learning process were the most common learning barriers in the office. If dedicated learning environments and times were arranged during office hours, then users would be less distracted by work and learning would be facilitated. Professionals who promote digital learning (such as e-facilitators and e-tutors) should receive rigorous training to help users adapt to online learning and to eliminate learners' uncertainties regarding using e-learning systems. Another crucial barrier, lack of time, can be attributed to excessive workloads, but may also be used as an excuse. Thus, management agencies must understand the reasons for these barriers in greater depth.

2. Increase course content diversity, practicality, convenience, and fun: In addition to courses on policies and job-related legal topics, courses on language and culture, self-growth, and management should be provided to improve the competence and humanism of public servants. To enhance the convenience of learning in the mobile era, we suggest replicating the modular course design employed by Harvard Macy Institute (Harvard Macy Institute programs); each module contains a video as well as learning clues and a learning outcome assessment. The module length was controlled to within 12 minutes. This enabled the learners to maintain their focus, meeting the course demands of users.

3. Establish appropriate reward and punishment measures: Because Policy Factors have a substantial impact on the Behavioural Intention, the promotional bureau or agency of the learning department should establish diverse reward and punishment measures to increase the frequency with which public servants use e-government learning systems. For example, the Directorate-General of the Personnel Administration can mandate that public servants complete a specified number of hours of e-learning per year and link this mandate to the A-level threshold in performance appraisals; provide awards and recognition to every public servant who surpasses a certain number of e-learning hours annually; or formulate and offer tangible rewards and incentives such as sweepstakes and prize drawings or learning-hours-for-vacation promotions.

4. Reward competence in the administrative authority: The success of organisational learning depends on the competence of the people who provide support. Therefore, to encourage competence in assisting public servants and in providing e-government learning services, incentives should be offered to e-government learning providers.

5. If the management agencies responsible for the e-government learning systems used by public servants monitor learners and help resolve the challenges they face, design courses and usage situations that satisfy learners' requirements, and implement appropriate reward and punishment policies, then overall use of systems is likely to increase.

Contribution

This study provides the following contributions:

1. Regarding theoretical contributions, we established a model and verified that Attitude Towards Use, Barrier Factors, and Policy Factors are associated with the Behavioural Intention. The factors explored in this study, barriers and policies, have rarely been examined in previous research on the theory of e-learning acceptance and usage behaviour; here, these factors explained more than 50% of the variance in Attitude Towards Use. Additional, this

study involved measuring the e-learning behaviour of adults (public servants), who constitute a group distinct from students, and thus fills a gap in academic research on learning.

2. Regarding practical contributions, the results indicate that authorities should to adopt suitable policies that encourage adult learners to enhance their learning motivation. The results of this study, which revealed the learning characteristics of the research participants, can serve as a reference for future researchers and also for agencies that manage e-government learning. Furthermore, these results may help enhance studies on and the practice of adult learning.

3. The cross-validation approach was adopted to increase the robustness and reliability of the qualities measured according to the Likert scale. The collected data were divided randomly into 2 sample groups. EFA was conducted on the first group to construct a research model, and CFA was conducted on the second group to test and verify the model. This research process was particularly rigorous, can serve as a reference for future researchers.

4. Taiwanese culture is a hybrid blend of various cultures in the Greater China area; therefore, although our research participants were from Taiwan, our results can be used as a reference for populations in the Greater China area of Asia.

This study focused on the individual level to determine factors that affect individual e-learning. The results can serve as a practical reference for adult educators, providing policy makers with clearer ideas on crafting practical solutions for improving learning environments and opportunities for adults. The results of this study enrich the e-learning literature as well as the practice of e-learning and facilitate enhancing research on and the practice of adult learning; thus, conforming to the research purpose.

Limitations and Further Research

Although the Attitude Towards Use, Barrier Factors, and Policy Factors, explained more than 80% of the variance in the Behavioural Intention, the explanatory power for Attitude Towards Use (50.8%)

was insufficient. We recommend that constructs from other theoretical models be combined in future research to improve the explanatory power for Attitude Towards Use. Furthermore, the gender, age, education level, job position, and learning autonomy of participants can be subjected to extraneous variable analysis to determine whether these factors influence the Behavioural Intention distinctly.

In addition, we conducted a cross-sectional analysis of a single group. Future research can adopt a longitudinal study design or include e-learners other than public servants, such as business people, to evaluate the general applicability of the theoretical model developed here.

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Appendix A

Constructs	Operational Definition	Source	Measure	Adapted Measure
Barrier Factors				
Situational Barriers	Situational barriers relate to the employee's environment and life's circumstances and are the most prevalent barriers	Penina Mungania (2003)	1. Interruptions during learning especially in the office made learning difficult. 2. E-learning lacks the personal interface with other students and instructor. 3. E-learning is not suitable for all courses.	1. Interruptions during learning especially in the office made learning difficult. 2. The e-government learning lacks the personal interface with other students and instructor. 3. The e-government learning is not suitable for all courses.
Content Suitability Barriers	Learner expectations of the course Course relevance Content not audience-specific Poor content quality and limited rigor Poorly constructed assessments	Penina Mungania (2003)	1. The courses offered were not relevant or applicable to their job. 2. The content covered is not specific enough. 3. Courses offered were not those I desired.	1. The courses offered were not relevant or applicable to job. 2. The content covered is not specific enough. 3. Courses offered were not those I desired.
Personal Barriers	Time management problems Adult pride Language problem Attitude towards e-learning Learning style or preferences	Penina Mungania (2003)	1. Finding the time for study was a barrier. 2. Physical health barriers such as eye strain, carpal tunnel syndrome, or physical immobility. 3. Psychological barriers such as anxiety or stress.	1. Finding the time for study was a barrier. 2. Physical health barriers (such as eye strain etc.) made e-government learning difficult. 3. Psychological barriers such as anxiety or stress made e-government learning difficult.

Policy Factors	The policy factor was defined as the pressure or incentive policies that affect behavioural intentions regarding the adoption of e-government learning systems	1.Hsieh et al.(2008) 2.Kris M.Y. Law, Victor C.S. Lee , Y.T. Yu (2010)	1. The city government thinks that I should use the Internet TV. 2. The pressure from teacher forces me to learn better and work harder. 3. The pressure from my classmates pushes me to learn better. 4. My performance will be further improved when my good performance is appraised positively by others. 5. I will be motivated to learn better on Web-based learning when appropriate reward (e.g., bonus points and higher marks) is given. 6. The instructor's on Web-based learning encouragement and good comment on me motivate me to learn.	1. The government thinks that I should use the e-government learning. 2. The pressure from government policy (less 15 e-learning hours) forces me to learn better and harder. 3. The pressure from my organization pushes me to learn better. 4. My performance will be further improved when my good performance is appraised positively by others. 5. I will be motivated to learn better on e-government learning when appropriate reward (e.g., bonus points and higher marks) is given. 6. The instructor's on e-government learning encouragement and good comment on me motivate me to learn.
Attitude towards use	Attitude toward using technology is defined as an individual's overall affective reaction to using a system	Venkatesh et al.(2003)	AU1: Using the system is a bad/ good idea. AU2: The system makes work more interesting. AU3: I like working with the system.	1. Using the e-government learning is a good idea. 2. The e-government learning makes learning more interesting. 3. I like learning with the e-government learning system.

| **Behavioural Intention** | Behavioural intention to use is a measure of the strength of one's willingness to try while performing certain behaviours | Venkatesh et al.(2003) | BI1: I intend to use the system in the next \<n\> months.
BI2: I predict I would use the system in the next \<n\> months.
BI3: I plan to use the system in the next \<n\> months. | 1. I intend to use the e-government learning in the next 6 months.
2. I predict I would use the e-government learning in the next 6 months.
3. I plan to use the e-government learning in the next 6 months |

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Staying in a certain state of mind: becoming and being a freelance adult educator in Singapore

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Over recent years Singapore has developed a strong adult and vocational education system based on those of Great Britain, Australia and New Zealand. Its Continuing Education and Training (CET) sector makes use of competency-based training in the form of Workforce Skills Qualifications (WSQs) which are delivered in mainly small private providers by learning facilitators qualified through a range of WSQ-based training programs. Most facilitators are mature-age and second-career people drawn from diverse career backgrounds and employed on a casual and part-time rather than ongoing basis. They identify themselves as 'freelancers' in the training market place and compete vigorously for the work opportunities available. In the paper we argue that continued workplace success is premised on a strong sense of professional identity and its management through a process of 'shapeshifting' according to the diverse requirements of the adult

education industry. We explore this idea through revisiting three of our projects examining Singaporean CET educators and ask of our data a new question: 'How do individuals "become" and "be" Singaporean adult education freelancers?' We draw our insights from interviews with freelancers, Singapore's political and economic context and a range of literature drawn principally from a socio-cultural theoretical perspective.

Keywords: *Adult education, vocational education, workplace learning, professional identity, Singapore education*

Introduction

> It is not just about getting the work; it is about staying in a certain state of mind. It is about, I think, having a high level of personal mastery and being able to just weather through, whatever the world holds.

> (Debra, adult educator for sixteen years)

Debra is an experienced Singaporean adult educator, but like the majority of her colleagues she is part of a contingent and self-labelled 'freelancer' workforce that facilitates learning in the country's mostly private adult Continuing Education and Training (CET) sector providers. Her capacity to gain ongoing but impermanent work is shaped unpredictably by forces she can and cannot control. While she has a hold on how she learns new skills and gains new knowledge, mostly informally and in workplaces, via carefully cultivated friends and networks, and occasional formal programs, she must compete in the open market for work against rather than with her colleagues. While some providers remain a steady source of income, though rarely high, others come and go, and there is the pressure of developing new opportunities. To achieve her deft weaving through the system she has developed a strong sense of self, a deep sense of resilience, a capacity to be a permanent learner, as well as excellent time management and business planning and self-marketing skills. And then there is the delicate dance of balancing home and work, for engaging in the life of the freelancer easily blurs these boundaries (Campbell Clark, 2000).

But, and again like many of her fellow 'trainers', she chooses to be a freelancer for the work flexibility and freedom it offers. The same high perceptions and management of a malleable self cannot be claimed by many of her less experienced colleagues, which give her a market advantage against some, but not all. In the end it is a social Darwinian world of winners and losers, the fit and the not-so-fit. Unlike the world of permanent or ongoing work, where employees are relatively more stable, can predict the near future and have many learning needs met by a stable set of peers and enterprise-based training, Debra must be a 'shapeshifter', constantly adapting and reinventing or 'rebranding' herself to take advantage of or create new opportunities (Karmel, Bound & Rushbrook, 2014)

Debra is representative of many of her colleagues who may vary in profile according to the usual demographics of age, gender, experience, educational background, and so on. But to survive in the CET sector means a shared commitment to her impressive portfolio of entrepreneurial and professional workplace and life skills. Without them freelancers fail to thrive and many drop out to seek other careers. We claim that to survive as a freelancer in the Singaporean adult education market requires – even demands - this strong sense of professional identity.

We explore and develop the pivotal role of identity in freelancer workplace engagement through bringing together a range of themes and theories developed over three research projects (Karmel, Bound and Rushbrook, 2014; Bound, Rushbrook & Sivalingam, 2013; Rushbrook, Bound and Sivalingam, 2013). We do this by asking a new question of our data: 'How do individuals "become" and "be" Singaporean adult education freelancers?' In addressing this we draw from sixty eight interviews, including freelancers and ongoing facilitators, spread across the projects. The interviewees were selected using a combination of purposive and convenience sampling (Lankshear & Knobel: 148-149) and analysed through a 'categorical analysis' approach (Coffee & Atkinson, 1996), which also has much in common with Strauss and Corbin's 'constant comparison' approach (1990). The interviews were first transcribed and then analysed iteratively according to emerging and ever-consolidating themes until 'data saturation' affirmed the strongest (Sarantakos, 2001: 202-205). Observation through research notes and

document analysis was also used. Interview transcript analysis was conducted through NVivo and other paper-based approaches.

Theoretically we are positioned from a sociocultural perspective. We consider learning highly contextual and situated through the mediation of individual or collective reflexive human activity in environments shaped by material objects, space and socially, politically and economically derived ideas and practices. Within this set of assumptions, neither individual nor social learning is privileged, with learning as a process of ongoing participation rather than the achievement of an end 'product'. We acknowledge the fundamental uncertainty, messiness and complexity of our research environment, but seek nevertheless to draw insights of value for researchers and practitioners alike (Hager, Lee & Reich, 2012; Fenwick, Edwards & Sawchuck, 2011; Malloch, et al, 2011: 23-27).

The paper unravels and analyses the process of becoming and being a Singaporean adult educator freelancer through five sub-headings based on the above three projects. First, we consider the broader Singaporean context within which freelancers conduct their daily lives and engage with lifelong learning. Second, we assess the framing of freelance work within the discourses of 'contingent and 'precarious' labour literature in order to sharpen our ideas about how freelancers are positioned in the labour market. Third, we unpack a little further our reading of identity formation and 'becoming' and 'being' in workplace contexts. Fourth and fifth, we re-interrogate the interview and other material to map how freelancers 'become' and 'be' through previous work experience, formal training as adult educators and ongoing workplace practice. The paper concludes with a discussion that brings these themes together.

The Singaporean context and lifelong learning

Debra lives in dynamic Singapore, one of the leading 'Asian Tigers' of the 'Asian Century'. Singapore's rapid economic and social development was no accident but an authentic rags-to-riches story driven from the mid-1960s though the charismatic leadership of founding Prime Minister Lee Kuan Yew and his People's Action Party (PAP), which has held office since independence in 1965 (Lee, 2009a). With a total population of around five million on an island no larger than greater Melbourne or Sydney and without any natural resources, apart from its people, its

global positioning as one of the world's wealthiest and per capita best educated states is indeed a remarkably successful 'from third world to first' narrative (Lee, 2009b). Celebrated and some claim reinvented as 'The Singapore story' – part reality and part myth – the national story is told as a pragmatic, meritocratic and technocratic representation of Singapore's 'can do' reputation deeply embedded in the national psyche (Tan, 2011). Singapore was quick to embrace the winds of globalisation and radical free market neoliberalism and swiftly combine it with its collective approach to governmentality (Choi, 2011). With this seemingly contradictory – but pragmatic – approach it has been able to generate huge national and, for some, individual wealth while providing extensive redistributive mechanisms for the less advantaged, not through paid welfare but rather a raft of incentives, schemes and education and training initiatives (Lee, 2009a, 2009b). This tension between economic radicalism and conservative government authoritarianism has recently been referred to as 'The Singapore paradox' (Amaldas, 2009: 985), and often sits restlessly with its people (Tan, 2011).

It is within this broader political context that a specific reading of 'lifelong learning' has emerged. It was perhaps inevitable, given that human capital was Singapore's only real economic resource, that lifelong learning would assume a vocational hue. Former Prime Minister Goh captured this well at a 1998 National Day rally: 'We will have to evolve a comprehensive national lifelong learning system that continually retrains our workforce, and encourages every individual to learn all the time as a matter of necessity' (Goh, in Kumar, 2006: 501). This contrasts strongly with other international lifelong learning iterations emphasising broader humanist rather than economically-oriented goals (Faure, 1972, Delors, 1996).

Though discussed since the mid-1980s, lifelong learning did not assume prominence in national policy until the early New Millennium following a regional economic crisis and the SARS outbreak, which destabilised employment and skills formation for many workers. It was time for transitioning the economy from manufacturing to the knowledge economy. In 2003 the Workforce Development Agency (WDA) was created to manage the new training demanded and lifelong learning dramatically became 'adult education', though in other parts of the world it would be called 'vocational education'. Nested within the WDA

and the broader CET sector there were developed Workforce Skills
Qualifications (WSQs), which framed skills development as a series
a Competency Based Training (CBT) programs, not unlike those of
Australia, New Zealand or Great Britain (Willmott and Karmel, 2011;
Anderson, Brown and Rushbrook, 2004). A high compliance regime was
considered necessary because of the inexperience of its mainly private-
for-profit providers. Curriculum construction and its facilitation with
learners were subsequently tightly regulated and managed (Willmott
and Karmel, 2011: 20-22: 52-55). It is within this environment that
Debra and her colleagues work as freelancers, though many also operate
in the relatively deregulated and often better paid non-WSQ training
market.

Freelancer employment: contingent or precarious?

Our interest in researching Singaporean freelance adult educators
generated further interest in the global phenomenon of increased
workplace casualisation and the rise of an extensive literature in the
field. We decided to explore this literature in order to further clarify
the positioning of freelancers in the adult education workforce. It was
our perception that the widely used labels 'contingent' and 'precarious'
workers accounted theoretically and practically for the positioning of
Singapore adult education freelancers. We considered, however, that
they were in many ways opposite and discursively loaded concepts,
depending on the value placed on 'contingent' work as a desirable
labour form and 'precarious' work as 'at risk' employment in an age
of flexible capitalism. For example, there is the assumption that
contingent workers are able easily to navigate the getting and keeping
of work to their own advantage through the development of social and
mobility capital networks, the management of work-life balance and its
unpredictable permeability, a capacity to maintain current workplace
skill and knowledge capabilities, competently pursue meaningful,
creative and self-fulfilling work, and possess the aptitude to earn a
comfortable income and maintain a self-selected lifestyle. This, then, is
the 'boundaryless worker' sanctioned by the new economics of global
capitalism and advocated through the economics, human resources
and careers literature (Forrier, Sels & Stynen, 2009; Kalleberg,
2000). Feldman defines the contingent worker 'as work that is: (1) not
permanently associated with any one employer. (2) Consists of less than

thirty-five hours a week with any one employer or client. (3) Is limited in duration either by contract or by the duration of a specific task or project' (Feldman, 2006: 30). We similarly defined impermanent work as project or short-term based over less than twelve months.

The discourse of the 'precarious' worker, however, implies the opposite of the boundaryless worker. Originating within the radical social sciences literature and supported by global labour organisations and social movements, precarious work suggests that the fundamental relationship between worker and employee is one of rupture, exploitation and disadvantage. Brophy, for example, offers a definition of precarious work by omission and explanation, referring to 'a range of labour conditions that escape the traditionally understood Fordist relationship to labour: a job for life, dependable benefits, steady work rhythms, union protection, a fairly clear separation between work and free time, a social safety net if all else failed, and so on' (Brophy, 2006: 621). A number of studies emphasise the potential for precarious workers, whether professional, craft or unskilled, to be denied access to workplace conditions considered an entitlement or right to previous generations (Cavanagh, 2010; Fenwick, 2012, Kong, 2011; McKeown, 2005; Hudson, 2001)

Given there appears to be a case to separate the discursive application of contingent and precarious work in research settings, we made the choice to adopt the use of the term 'contingent' worker for this paper. This is not to endorse the underlying discourse but to acknowledge that Singaporean freelancers who manage to find meaningful work meet the contingent work criteria (Rushbrook, Bound, Evans & Waite, 2014).

Becoming and being: our reading of identity and work

Learning how to 'become', and embodying what to 'be', are processes that freelance adult educators negotiate as they try to attract and maintain paid work. Here learning or *becoming* is identity building work that develops a way of *being* for freelance adult educators to draw on as an internal compass as well as a reference point for dealing with the challenges inherent in their work.

An understanding of learning as an often invisible and constant process involving abstract and tacit knowledge moves away from the

'competence theoretical approach' where learning is transmitting the competences of adult educators largely through formal training (Maier-Gutheil & Hof, 2011; Robson et al., 2004; Gee et al, 1996). The critique warns against removing 'competences' from their contexts and practice. Thinking and doing cannot be separated, and the individual cannot be held distinct from the environments in which they operate (Engestrom, 1999; Sawchuk, 2003; Gherardi & Niccolini, 2000; Wenger, 1998; Fenwick, 2004). In this approach learning and identity are relational, dynamic and provisional - practice based rather than acquisitional (T. J. Fenwick, 2004; T. Fenwick, 2000).

The nature of freelance work as an adult educator is posited to be individualistic and disconnected from organisational culture and practices; yet, much workplace learning literature emphasizes the role of the work environment and colleagues as key factors for becoming a particular type of worker. Here the literature points to the importance of experience, interaction, and reflection for learning across diverse work related tasks. These are not mutually exclusive, involving an interplay between them all, and may exist across informal, non-formal, and formal professional development activities.

Experience includes past work experiences, as well as day-to-day experiences as an adult educator. Here learning is 'open, indeterminate, flexible, and not necessarily an organised process that favours rapid adjustments to changes' (Guimarães, Sancho, & Oliveira, 2006). Intertwined with experience is interaction where co-participation and emergence enmeshes individual and social processes. Learning interactions may occur with peers, mentors, learners, clients and administrative personnel and can involve questioning, listening, observing, discussing, writing and reading amongst other actions. It is through interaction that knowledge is shared and created. Tying these ways of learning together is reflection, which may have the most impact on becoming a freelance adult educator. Boud (2010 in Fenwick 2008) conceives learning as reflection, whereby 'reflection...provides a link between knowing and producing.' The 'reflective practitioner' has become a key signifier in the professional development of adult educators as the notion of learning theory and applying it in predictable ways has become irrelevant (Merriam, 1986; Cervero, 1988; Imel, 1992; Edwards & Usher, 1996; Jõgi & Gross, 2010; Lehman, 2003; Maier-

Gutheil & Hof, 2011; Nittel, 2000; Smilde, 2009, p.84).

Becoming a freelance adult educator may happen largely through experience, interaction, and reflection, but what is it that these workers actually need to 'be'? Here the literature identifies a number of challenges that lead to reactions or a way of being for freelance adult educators. These are: motivational conflicts and reconciliation; diversity and shape-shifting; unpredictability and permanent learning; as well as competition and innovation.

Besides a disjuncture between formally learned concepts and real practice, freelance adult educators may need to reconcile their personal motivations with reality. They can be full of contradictions between desiring both flexibility and stability, as well as wanting to find greater meaning in life and operating in a system of accountability, business, and measurable outcomes (T. J. Fenwick, 2006; T. Fenwick, 2000; Lehman, 2003; Robson et al., 2004).

Freelance adult educators often operate across more than one work environment. This diversity can create a juggling act of competing contracts, demands and expectations, and requires shifting between different roles, clients, and 'languages'. Here understanding the norms of various environments becomes crucial for enabling 'shape-shifting' in order to seamlessly operate across diverse environments. Yet, while being a chameleon of sorts, it remains important to retain a strong sense of self to avoid fragmentation (Edwards & Usher, 1996).

In reaction to the unpredictable nature of freelance training, encompassing an ethos of learning can be crucial. Cornelia et al's work (2011) calls this 'The Permanent Learner' where enjoying the constant need to change, learn and improve reduces the external pressures to adapt constantly and remain up-date (Maier-Gutheil & Hof, 2011). With this mentality every experience can be viewed as a learning opportunity, and the individual can embrace change as an aspect of their professional practice (Taylor et al 2009).

Moving between clients in an unpredictable market also makes it crucial for freelance adult educators to have something that their competitors do not (Edwards & Usher, 1996; T. J. Fenwick, 2004; T. Fenwick, 2008). Fenwick argues that freelance adult educators, particularly those with

multiple employers, need to embody the ability to make new processes and structures of work, constantly bring something new to clients, and capitalise on their uniqueness, so that clients believe they have something special to offer.

In a world of motivational conflicts, diversity, unpredictability and competition it seems that freelance adult educators learn through experience, interaction, and reflection to be a medley of 'reconcilers', 'shape-shifters', 'permanent learners', and 'innovators'. We now turn to our empirical data to gain an understanding of *becoming* and *being* for freelance adult educators.

Becoming an adult educator

 Part of the freelancer workplace identity formation process consists of prior life and work experience brought to the task, formal and informal training and workplace learning. In this section of the paper we reflect on and reinterpret the data gathered in two projects examining CET stakeholders' (including freelancers) perceptions about the construction of quality curriculum and the conduct of quality learning facilitation (Bound, Rushbrook & Sivalingam, 2013), and CET stakeholder (including freelancers) perceptions of their journey to adult learning practice (Rushbrook, Bound and Sivalingam, 2013). An assumption is made that the data reported resonates with our project (Karmel, Bound and Rushbrook, 2014), which considers only freelancers, as freelancers and ongoing workers alike who wish to work within the WSQ system complete identical curriculum writing and learning facilitation training programs. Demographically, too, they all tend to be mature aged workers with solid career experience behind them. All are eligible for similar government training subsidies and programs are delivered on the same basis for freelancers and ongoing workers alike. A new question, however, is asked of the data: 'How do you "become" an adult educator in Singapore'? The next section deals more exclusively with the process of 'being' a freelance adult educator.

Education and training for work as an adult educator requires at a minimum participation in an entry level learning facilitation course, the 'Advanced Certificate in Training and Assessment' (ACTA), introduced to the WDA in 2005 (Willmott & Karmel, 2011). Modules include adult learning principles, Competency Based Training and

assessment, and basic curriculum design. Assessment for satisfactory completion includes written assignments, practical performances in simulated environments, oral questioning and desktop reviews. There is no workplace learning or assessment component (Institute for Adult Learning ACTA brochure, 2012).

Most ACTA graduates who wish to continue and build their skills and reputations within the CET sector, particularly if working with WSQs, also complete a more advanced course, the Diploma in Adult and Continuing Education (DACE), introduced in 2010 (Willmott and Karmel, 2011). The DACE program, in addition to 'value-adding' ACTA, allows specialisation in a number of streams, including curriculum writing, e-learning and assessment, among others. It will be mandatory from 2015 to have a DACE curriculum graduate in all WSQ training providers. Further additions to the program include a detailed capstone project and an integrated practicum (Institute for Adult Learning DACE brochure, 2012). Our research (Bound, Rushbrook & Sivalingam, 2013) drew mainly from DACE learners and graduates, though all had completed the ACTA program, even though not a DACE prerequisite.

Our third project (Rushbrook, Bound and Sivalingam, 2013) data consists of 18 interviews from Bound, Rushbrook & Sivalingam, 2013, and 20 from Rushbrook, Bound and Sivalingam, 2013 (10 collected over 2010-2012 and 10 from 2012-2013). We approached analysing the data through the lenses of curriculum purpose and curriculum intent. Through reflection on the former we concluded that the underpinning purpose or philosophical intent of delivering the ACTA and DACE courses was mediated through a CBT approach designed 'to create a more effective workforce to increase national prosperity and producing a workforce capable of meeting international competition' (Cornford, 1999:93; Doll, 1993; Billett, 2003). This is in line with PM Goh's purpose for the lifelong learning trajectory of Singaporeans. We read the idea of curriculum 'intent' as how the curriculum is interpreted and represented in delivery practice with learners. We drew in particular on the ideas of Schwartz (2006) who differentiates between 'curriculum users' and 'curriculum receivers'. This suggests that learning facilitators actively mediate and model curriculum content and purpose when working with learners, as indeed do learners themselves. This was a major insight into the perceptions revealed by our interviewees in their experience of

becoming adult educators through the ACTA and DACE programs.

From our data we discovered that most ACTA and DACE facilitators and learners – and eventually graduates - adopted a 'compliant' or pragmatic approach to the making and facilitation of curriculum, reflecting both the curriculum experienced and the modes through which it was delivered (Bound, Rushbrook & Sivalingam, 2013). By this we mean that in practice graduates adapted to working and responding within Singapore's tightly managed WSQ and CBT environment. Curriculum, for example, is defined in instrumentalist and technocratic ways and ATOs enforce rigid standards of facilitation that demand compliance to set delivery strategies. Given the national skilling thrust there is a clear market orientation: curriculum is expressed as a series of practical and measurable outcomes underwritten by the requirements of paid work. For most interviewees this was a normalised and unproblematised process and shaped perceptions of what was meant by 'quality' curriculum (Bound, Rushbrook & Sivalingam, 2013).

We did, however, see examples of resistance to this regime of compliance. This we labelled the 'interpretivist' approach (Karmel, Bound and Rushbrook, 2014; Bound, Rushbrook & Sivalingam, 2013). For some, curriculum was considered a flexible, dynamic and engaging map of learning possibilities. In this approach facilitation privileges the agential relationship between learner and facilitator. It was, though, heavily nuanced by a lack of learner and facilitator exposure to the types of pedagogies and knowledge that inform this approach. We understand this deficit is being addressed in subsequent reviews of the ACTA and DACE courses.

We observed this more open approach emerge in particular through our project examining the reflexive journey of adult educators from 'novice to expert', particularly in the second and most recently interviewed cohort (n=10), which we concluded may indicate a maturing of the CET sector and recently introduced programs to afford great flexibility in interpreting content and approach (Rushbrook, Bound and Sivalingam, 2013). The DACE learners were drawn from a range of occupational areas, including education, hospitality, engineering, retail and commerce. They used this deep career experience to review critically their DACE learning experience. Important, too, was the cooperative

support of peers both within the DACE course and workplaces to further develop their interpretive ideas. Finally, they also noted that it was only possible to adopt an interpretive stance with the support of learning provider management (Rushbrook, Bound and Sivalingam, 2013).

'Becoming' an adult educator, then, through this brief overview of two larger projects (Bound, Rushbrook & Sivalingam, 2013; Rushbrook, Bound and Sivalingam, 2013), is both a shared and sometimes fraught process. All are mature workers, often leaving a former profession or role because of economic downturn or entering a new 'age and stage' phase of their lives (Bound, Rushbrook & Sivalingam, 2013; Rushbrook, Bound and Sivalingam, 2013). All, at least those who engage with WSQs and the WDA, enter one or two curriculum making and learning and facilitation programs to be certified as 'competent' to deliver WSQ-based programs. This journey generates options of either complying with the adult education regulatory environment or resisting to create new creative 'interpretivist' approaches within learning environments. However, unless these receive the support of managers and employers, they remain difficult to implement.

Being a freelance adult educator

Our data (Karmel, Bound and Rushbrook, 2014, n=30) suggest that it can be beneficial for a freelance adult educator to encompass certain dispositions and skills as a way of *being* that can help them negotiate their occupation. The dispositions identified are being: passionate, anchored, resilient, and a permanent learner, which can help minimise fragmentation and provide a central driving force for professional ethics and actions. Building on these dispositions are skills such as planning, continual networking, positioning, shape-shifting, and innovation. The data indicates that there is significant interplay between these dispositions and skills. The form and degree that this 'embodiment' takes shape, however, is negotiated with the environments (markets, systems, organisations) that provide a context for the individual to interpret what it means to *be* a freelance adult educator in Singapore.

Overall, our freelance trainers seem to be well placed in terms of having developed the dispositions that will help them operate effectively. This is important as Grusec and Goodnow (1994) argue that the extent to which learning takes place is dependent on an individual's

disposition. All of the interviewees talked about being passionate, using it for slightly different purposes depending on the challenges they faced within the systems they worked. This implies that 'passion' as a mantra for freelance trainers is well established as the difficulties they face necessitate it. In terms of being anchored to avoid fragmentation, experience, reflection, and professional necessity are crucial. In the private market it is necessary to know who you are, which is related to the skill of positioning and the nature of the market. Most adult educators go through a time of figuring this out by negotiating their internal motivations, past experiences, and work opportunities. Closely related to being anchored is being resilient. This disposition is largely affected by personal doubts and uncertainties about credibility and how work is allocated. Being anchored and resilient seemed particularly low for people who had entered freelance training after being made redundant. Being a permanent learner, however, was reasonably strong across the board, which is likely a response to unpredictability and also related to the centrality of 'learning' for this occupation. The effort of turning 'everything as a learning experience' into transformational actions, however, was less evident, largely due to time and/or a lack of support and motivation for truly reflective practice.

We now turn to focus on the skills that can help a freelance adult educator *be* someone who attracts and maintains work. Planning skills are very important for a freelance adult educator to have. Before deciding to try freelancing as an adult educator there are a number of elements that need to be considered so that a measured decision can be made. Planning skills were found to include a strategy prior to exiting permanent employment, financial planning, planning your client approach, flexibility and juggling, as well as schedule management. The possession and refinement of planning skills seems to be related to both experience in previous careers, as well as experience negotiating (both internally and professionally) as a freelance trainer. The extent to which one *is* a good planner has ramifications, not only for ones confidence in the decision to freelance, but also for their reputation and the ability to attract and retain clients.

Freelance adult educators know that networks are crucial for getting work. Those with small networks, high chances of direct competition, and few proactive strategies are in a much weaker position compared

to their peers with higher power networks. Although formal platforms and social media exist for networking purposes, their functional usage seems to be limited. The lack of a collaborative culture among most adult educators, and the difficulty some freelancers have in 'proving' themselves, makes it difficult for more inclusive networks to exist. *Being* a part of a network fundamentally impacts the type and amount of work a freelance adult educator can get.

Some freelance adult educators are comfortable with seeing themselves and running themselves as a business. Beyond planning skills, this involves the ability to position products and services for certain markets, without which gaining clients will be difficult. The implications for having poor positioning skills are felt mostly at the individual level as it makes it hard to know how and where to compete with credibility. On top of this, professional development becomes more difficult without understanding how you are, or want to be, positioned in the market.

Shape shifting skills determine the ease with which a freelance trainer can navigate the diversity they come across. The extent to which one *is* a shape shifter determines the ability of a freelancer to link a product to client needs and deliver it appropriately. This is largely 'behind the scenes work where a coherent image is presented to a client with little evidence of the chameleon work being performed. Here the challenge is understanding a diverse array of environments and clients, which successful freelance adult educators can do through tapping on their past experiences and networks.

The skill and drive to innovate are an important aspect of professional gratification for more experienced freelance trainers, particularly in the private market. *Being* an innovator also points out the crucial relationship between development and delivery for more responsive products. Freelancers operating within the nationally regulated system, however, have a much more limited identification with innovation as their success lies in covering learning materials and learners passing assessment.

While the individual freelance adult educator is most directly affected by the embodiment of these dispositions and skills in terms of getting work and gaining professional satisfaction, there are also implications for their clients and Singapore's workforce development agenda. Although

a great deal of agency is apparent for many freelance adult educators, the environments that clients/providers create indicate what they are expected to *be*. This means that the work environments, although diverse, can enhance the freelancer's contribution or limit it, make understanding needs easier, or more difficult, and encourage sharing, collaboration, and innovation or a guarded and isolated working culture. At a systemic level, also, a free market seems more able to encourage responsiveness and professionalism, while a system that focuses on standardisation expects a certain level of competency, but does not encourage or reward those who strive for more.

Conclusion

In Singapore change happens quickly. This is evident in the stories told here of changes to curriculum in the formal training for WSQ adult educators, moving from a compliant approach to encouraging a more interpretivist approach. The pragmatist approach to policy and focus on the individual as an economic unit in Singapore brings with it tensions typical of many national policy agendas but more sharply focused here. Key tensions are evident in the drive for increased productivity and innovation, yet old tools for achieving this intent get in the way of its realisation. Systemic requirements for standardisation encourage acceptance of norms, a non-questioning mindset, at odds with the drive for innovation. Yet when we look below the surface of the policy environment, there *is* evidence to be found of those who question, those who choose pathways other than the WSQ approach which in its current form leaves limited room for individual adult educators to practice in innovative ways; there are also stories of those who find the liminal spaces, the cracks and fissures in a rigid system to develop innovative practices. As the first study (Karmel, Bound and Rushbrook, 2014) indicates, the free market here seems to better appreciate and even demand adult educators to become and be highly professional.

Becoming and being a freelance Adult Educator in Singapore in some ways is little different from experiences in other countries: you need to have established networks before you make the leap from ongoing employment; you need to be clear how you will position yourself; you need to have a financial plan in place, to be able to plan well and above all to be comfortable with 'shape shifting', yet know your true

core and being true to that. All of these are what we can refer to as a 'state of mind', but it is much more than that. The process is dynamic and dialectical in nature. What is unique to Singapore is of course the context in which adult educators work and thus the ways in which this context mediates being and becoming. The Singapore pragmatic 'can-do' approach is mitigated in part by a Confucian mind-set, deference to authority and a fear of risk. It is tensions such as these that have contributed to some indicating that Singapore is at a cross-roads in its striving to be not just world-class but first amongst First World nations in the provision of CET. Yet historical artefacts such as a Confucian mind-set and stringent implementation and application of quality control mechanisms pose particular challenges for policy makers, providers and adult educators alike.

Our research begs deep questions: What *is* a professional adult educator? Do current or will future markets provide the conditions for these 'professionals' to thrive? And, does the policy environment, likewise enable 'professional' adult educators to thrive to 'be' and become their best? These are the challenges Debra and her freelancer colleagues face daily as they negotiate their way through their professional lives and workplaces.

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Adult Education in Changing Times: Policies, philosophies and professionalism

Marion Bowl
NIACE, Leicester, UK, 2014, 190 pages

Reviewed by Gary R Chitty
Deakin University, Victoria

Adult education in Australia shares many themes with other English-speaking countries. Among these, we might expect experiences in those countries to inform and aid reflection on policy and practice in the adult education sector. Marion Bowl's book looks at aspects of experience globally, and more directly in England and New Zealand, drawing upon literature, policy and research into the careers of adult educators.

The book's accessibility makes an excellent first impression. The way in which it is structured and written renders it suitable for numerous target audiences, including researchers, adult education practitioners, and anyone interested in adult education. A good reference section and index immediately increases my interest level, and these have the same readability attributes as the main text. Bowl's extensive experience as an educator and researcher in this field underpins an approach that is

readable and well-founded.

The main body of the text is divided into two sections, 'Historical and political contexts for adult education', and the larger Section Two: 'Adult educators' working lives researched.' These sections are in turn divided into small chapters of about 20 pages, suited to easy navigation and occasional reading. This division marks a difference in the main purpose of each chapter, as the historical background both awakens the reader to the context and helps to position the second section.

Bowl's orientation of the reader in the introduction challenges some of the trends, which have beleaguered adult education. From the outset, Bowl sets the scene, asking 'when lifelong learning has been a policy priority for the past 40 years, (why) does publicly funded adult education appear to be fighting for its life?' (Bowl: 1). This observation is backed by clear, rigorous discussion, literature review and data. Changes in the socio-political setting, subsequent policy and practice in the world, and particularly in England and New Zealand, provide pointers into the insights that follow.

The introduction maps the field of adult education and dominant theory in recent years, wherein Bowl reflects on the merging of adult education with post-compulsory vocational training and the overall implications of this development. Bowl situates adult educators' beliefs and values in this context, referring to major philosophical positions, which adult educators frequently adopt. These are typically aligned with high-order social goals, juxtaposing the pragmatism of practice and the concept of professionalism.

Section One's treatment of historical and political contexts casts a perspective on adult education alternative to many pervasive views, as Bowl recognises the typically cited 'roll-call' of authors and organisations. Like most traditional histories, many of these are semi-biographical concerning prominent 'thinkers', usually male. For those of us with a genuine interest in adult education, the recasting of the historical context to include the practical and influential role of women and communities commands our attention. This broader social perspective results in arguments that are far more engaging than the usual 'who's who' of adult learning. Bowl is to be commended for this orientation, which on reflection is a more revealing lens than many

other portrayals of the evolution of adult learning in the 20th and 21st centuries.

The three chapters of Section One address the global landscape for 'lifelong learning' and adult education; the national contexts for England and New Zealand; and the question of professionalism, professionalisation and professional development in the sector. The first chapter provides an illuminating chronological view of the evolution of lifelong learning including the protestant reformation, the 'Enlightenment', industrialisation, influences of the second-world war period, and more recently post-colonialism, global capital and neo-liberalism. Bowl discusses the 'capture' of adult education by models of 'lifelong learning' in policy circles. Bowl's commentary results in the observation that 'non-instrumental' learning has increasingly become the role of the individual as decisions on policy and funding have steered away from learning that is not directly focused on economic or employment outcomes. The obvious is not stated, it is convincingly revealed.

The second chapter on England and New Zealand's situation starts with a brief demographic sketch and history of each country in the adult education context. The role of Maori and other local communities in New Zealand provides an interesting perspective when considering England. Multilingualism is embraced in New Zealand. While multiculturalism is embraced in both countries, the flow-on of multilingualism into the cultural values implicit in all forms of educational provision for the New Zealand environment is an interesting point of distinction. Even in the face of this difference, the neo-liberal policies and debates of both countries have had similar effects. This socio-political lens makes for good reading.

Considering adult education as a profession in the third chapter, the book explores notions associated with 'professionalisation' and 'professional development.' Interestingly, the two countries have had points of divergence and convergence in their approaches to registration, recognition and credentialing. Chronological and thematic views of comparative developments in recent years help the reader to conceptualise where these similarities and departures lie. The resulting observation provides a recurring theme... increased specification and

control appears to be occurring without any accompanying rewards or status for the 'professional educators.' I was left pondering - 'What is in these "reforms' for the educators?'

Section Two of the book takes up this theme in five chapters and a conclusion. Chapter Four outlines the research approach, which applies a narrative, career-based interview methodology wherein (mainly) face-to-face interviews resulted in narratives for each of about 60 participants across the two countries commencing in 2011. I found it noteworthy that those who accepted for interviews had mainly been in the sector for over ten years, and that it was difficult to find more recent entrants to the sector who identified themselves as 'adult educators.' Chapter Five considers the philosophies and values of the interviewees, with a resonant theme of 'learner-centred' and 'liberal-humanistic' perspectives. My reflection is the paradox this presents: that these high-order values prevail while adult educators are increasingly adopting self-employment due to changed funding arrangements and reductions in career positions.

The conflicts that these structures and conditions present for the interviewees is pursued in Chapter Six, 'A Non-career': Occupational identities and career trajectories,' and Chapter Seven which deals with the dilemmas of survival, accommodation and resistance. The 'non-career' label reflects the situation that many of the participants have confronted over the preceding years - that with funding and structural arrangements, what many would call a 'real job' is increasingly unattainable. The individual profiles and comments that are presented are very engaging - with statements from participants making comments like 'the blow of the shrinkage is not just the lack of income. It's the shock to self esteem and identity that goes with it' (Bowl: 114). The Chapter Seven discussion explores aspects of this, querying the increased accommodation of recent entrants due to their relative life situations, and some of the patterns of resistance. Bowl reminds us, 'the line between passive resistance and collusion can be hard to read' (130).

Chapter Eight steps back to take a bigger picture as it deals with strategy and advocacy. Observations regarding policy trends, and some of their punitive implications, do not inspire optimism. Bowl introduces the 'social enterprise' mantra that has some currency, which suggests that

socially-oriented, entrepreneurial organisations will fill this gap. The contention that this 'entrepreneurial philanthropy' is an alternative to sound, long-term funding is questioned.

The advocacy aspect of the book canvasses developments in national, community and other organisations that campaign for adult education. Bowl's critique is compelling. Those interested in the future of adult education will find the appraisal of strengths and limitations of different campaigns and strategies thought-provoking. In conclusion, the impact of changing global ideologies and approaches on the sector is addressed. Adult educators often see themselves - and are recognised as - agents of social change. In an age where commodification of education, increasing unemployment and reductions in social investment are the norm, the struggles confronting the sector in both of the countries examined, and others, are becoming more profound. The potential ability of those concerned with social goals to unite and advocate for some view of a 'better world' is raised. The challenges of the adult education sector are the challenges of the progressive elements of these societies globally.

While some aspects of 'Adult Education in Changing Times' could be accused of 'stating the obvious', Bowl has provided us with a reasoned, well-rounded discussion that gives 'the obvious' the meaning that makes us want to improve the situation. Prime audiences for this book are the educators and leaders of our adult educators, as it helps to re-position our thoughts for our education professionals in a cohesive, well-researched context. If we could get decision-makers to read it, that would be an even better idea. For those of us who read for pleasure as well as knowledge, 'Adult Education in Changing Times' is a disarmingly good read.

About the reviewer

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Book Review

What did you learn at work today? The forbidden lessons of labor education

Helena Worthen,
Hardball Press, 2014, 276 pages.

Reviewed by Michael Brown
LaTrobe University, Melbourne

This book will appeal to readers on a number of levels. It will be useful to all those who are interested in authentic and holistic learning that occur through engagement with authentic workplaces. This form of holistic learning goes beyond learning the technical skills needed for work and certainly isn't about the skills and knowledge that employers want. Rather it is about the learning that occurs when workers perform and think about their work in deep and more holistic ways. Learning becomes holistic when these job roles are recognised as being contextualised by the broader social relations of work that include different interests. The book provides numerous vignettes and stories which are worked through and analysed using various aspects of interesting and significant learning and workplace theories. These stories form the basis of 'the forbidden lessons' that are learnt through work.

The book is primarily about labor education and workers learning through adversity and struggle in their workplaces and in their communities. Yet the strong message is that labor and education could both benefit much more by working together in more systematic ways. It is argued that labor activists are practical people who tend to have little time for educators and especially those educators who like to draw on theory. Educators can focus too much on learning new knowledge and miss the utility of the knowledge to improve the lived experiences of the people in their classes. Something about how philosophers strive to understand when the point is to institute change seems like a good analogy for these differences. Yet this is also where this author challenges herself to speak plainly and to select, explain and use theory in a clear and non-alienating way.

This author takes an eclectic and strategic approach to build up an analytical framework that draws on four theories that are related to workplace learning. She draws upon Kolb's model of experiential learning and the four staged cycle; Lave and Wenger and their community of practice approach; mention is also made to the social learning theories of Vygotsky and Freire. Importantly though this author also draws on theories about knowledge that are relevant to this broad notion of workplace learning. These include theories of work process knowledge, for understanding how work is organised and Engestrom' s activity learning that shows a multi-dimensional system for understanding learning and work.

The book will be of interest to a broad cross section of adult educators who will appreciate the strategic construction of this text as the author bridges the spheres of education and learning, work and workplaces and being part of a community. The pedagogic use of stories as episodes to be used for developing deeper learning and understanding about work, workers and education is both informative and powerful. It connects up and purposes the learning to changing the circumstances and the lived experience of the learners.

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NOTES FOR INTENDING CONTRIBUTORS

1.   AJAL publishes papers in two main sections – blind peer-reviewed articles that draw on research, historical examination and/or theoretical insights and contributions; and a non-refereed section which aims to help practitioners reflect on their fields of practice, policy, improve teaching and learning and so on. These articles tend to be shorter and developmental. Articles that are more appropriate for the refereed section will not be considered for the non-refereed section. Authors should indicate in which section they want their paper to appear. In addition the Journal publishes book reviews, and from time to time special sections devoted to a theme or historical event.

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7.   Brief research reports and book reviews (of approximately 800 words) relating to adult and community education are welcomed.

8.   Some issues of the Journal are thematic. While papers published in a particular issue are not restricted to the theme, intending contributors are encouraged to submit papers on themes announced from time to time.

Further information about possible articles can be addressed to the Editor,

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