

NONFORMAL, INFORMAL EDUCATION AND POVERTY REDUCTION – A ROLE FOR TVET?

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Abstract

Technical and Vocational Education and Training (TVET) is considered essential to economic development and growth, with teachers and trainers' major role. Formal education and training have a positive impact on reducing poverty, as promoted by the Millennium Development Goal (MDG). However, this paper argues that non-formal and informal education and training is an overlooked factor in poverty reduction and economic development and that the TVET sector and its actors are fundamental. Current development policies and approaches need to pay greater attention to the role of non-formal and informal education strategies in development. While TVET is critical for economic growth and poverty reduction, operating only through formal and structured institutional [educational] or organizational [workplace] environments is insufficient. This paper explores the opportunities for non-formal educational strategies in addressing the needs of the informal economy. The paper specifically claims that teacher training must be focused beyond preparing teachers and trainers to operate more effectively in institutional or organizational formal learning settings. We need to engage more actively and effectively with how non-formal and informal education and training opportunities and approaches have the potential to enhance individual, community and society wellbeing and prosperity.

Keywords. Non-formal education, informal education, informal economy, poverty reduction

Introduction

The past 30 years have produced much discussion and discourse on the importance, or potential, of non-formal education within the spectrum of educational possibilities to contribute to skill and learning development. In 1976, Grandstaff wrote of the potential value in adopting nonformal education strategies, particularly in development plans. He argued that nonformal education could address some of the inefficiencies arising out of formal schooling and that it could particularly have a positive impact on learning and development of the rural and poor. This paper supports Grandstaff's beliefs in the value of nonformal education, yet argues that informal education strategies, which are different from nonformal, are at least as important and as with nonformal education requires greater attention in development plans.

Since Grandstaff's writing, the role of Technical and Vocational Education and Training (TVET) in contributing to economic development now appears widely accepted, and this acceptance of the importance of TVET cuts across the developing and the developed world. One only has to look at the challenges facing countries such as Australia in terms of skills shortages, as an impact of the current 'resources boom', to understand the importance of TVET in supporting a nation's current and future skill needs.

A founding belief of this paper is that the informal economy plays a role in a nation's economic development. A more 'effective' and 'efficient' informal economy, then, might contribute to a greater level; education, knowledge and skill development in the informal economy might well have a role to play. Hence, it is contended that vocational development activities within the informal economy have the potential to contribute to a nation's economic development, which will contribute to poverty reduction.

UNESCO considers there is an important link between TVET and the informal economy, commenting on TVET as part of an Education for All (EFA) initiative as "a particularly crucial issue in the informal [sector] of developing countries, where the awareness of a need for skills for a better livelihood needs to be developed in particular among marginalised youth" [1]. This clearly requires

different approaches to TVET delivery, which arguably requires teachers' approaches to content development and delivery to equally evolve.

While this paper may not present all the answers to the role the TVET sector could adopt in terms of nonformal and informal education in development, it aims to discuss some core questions; questions that the TVET sector could possibly answer through its leadership and contribution to poverty reduction:

1. What could nonformal and informal education and training look like as part of broader development plans, including within the informal economy, as a contributor to poverty reduction?
2. How could, or should, such approaches link to formal education and training structures?
3. What does this mean for TVET teachers and trainers?

In attempting to address some of these questions, this paper will initially present a brief overview of key development agencies and their current approach towards nonformal and informal education and training. Secondly, some possible models for nonformal and informal TVET will be discussed, including potential linkages from such models to formal education structures. As the informal economy is a particular target beneficiary group some background on the informal economy will be presented. Finally, this paper will consider the implications of nonformal and informal education approaches for TVET teachers and trainers.

To begin with, it is important to clarify a number of key concepts and how they are being defined and applied in this paper.

Definitions

Although following terms are not necessarily new to a TVET or a development agency or practitioner audience, the use of these terms at times challenges the concept of a singular definition or application of some of these terms. For this reason, the following definitions are being applied throughout this paper:

1. Tertiary education and formal education

While once considered, or at least more widely used synonymously as higher education, *tertiary education* now refers to *the level of study program offered post secondary education*. Importantly, tertiary education is now conducted in a wide range of settings in addition to formal tertiary education institutions, to now include workplaces, schools, private and public organisations and increasingly using the power of information technology solutions (Ian, 2003). The Organisation for Economic Cooperation and Development (OECD) has expanded this definition in its Thematic Review of Tertiary Education (2008) suggesting that tertiary education offers greater diversification now, through a range of institutions such as polytechnics, university colleges and technological institutes; their creation in part to enable greater responsiveness to labour market needs (OECD, 2008).

Formal Education, while it does include many tertiary education programs is not synonymous with tertiary education. Here formal education is considered simply as *all learning that is offered as part of a structured program, whether delivered within or external to an institutional environment*. This is supported by Coombs and Ahmed's 1974 definition of formal learning as being the "institutionalized, chronologically graded and hierarchically structured education system, spanning lower primary school and the upper reaches of university" (Combs and Ahmed, 1974) yet it also attempts to highlight the non-issue of attendance as a necessity of formal education.

2. Nonformal education and informal education

The terms nonformal and informal as it relates to education and training may at times be used in an interchanging fashion to describe a certain mode or approach, however there are subtle yet critical differences between the two terms. Coombs and Ahmed, and later Dangwal et al (2006) define *nonformal education* as *organised and structured education activities that occur outside the formal education system*. While the true separation from the formal system could be debated, the separation from the institutionalised formal educational system is considered most accurate.

While Coombs and Ahmed, again, present a reasonable definition for *informal education*, considering it a process of knowledge, skill and attitude accumulation from life experiences, it overlooks a core feature that Hager (1998) and Singh (2000) highlight, being the absence of a formal structure or curriculum. When combined a more complete definition is presented.

3. Informal economy

For the purposes of this paper, the informal economy is defined as small scale self employed activities, often evolving as a consequence of scarce employment opportunities, whose activities often escape laws and regulations (ILO, 2000; World Bank, nd.).

It should be noted that the term ‘informal sector’ is often used synonymously when talking about the informal economy, such as the case with the earlier quoted statement from UNESCO. However the International Labour Office during the 2002 International Labour Conference resolved that the term ‘informal economy’ replace the term ‘informal sector’ as a more appropriate term as it “takes into account the considerable diversity of workers and economic units, in different sectors of the economy and across rural and urban contexts that are particularly vulnerable and insecure; that experience severe decent work deficits and often remain trapped in poverty and low productivity” (ILO,2002).

Current development agency approaches to nonformal and informal education and training

While not meant to be exhaustive, the following overview of current development agency approaches to nonformal and informal education and training is meant to emphasise that, at least at a policy level, there may well be opportunity for further engagement if not application.

Five agencies have been chosen as a representative sample of development agencies and their policies or strategies; these agencies present a geographic spread as well as a bilateral and multilateral perspective on approaches to education development. There is no intent to present an opinion of superiority between the agencies or the policies they present; for this reason they are discussed in alphabetical order.

First, by way of introduction to this topic, it is important to reflect briefly on the Millennium Development Goals (MDG) as they continue to inform development agency policy and strategy. The following table highlights the education-related MDGs and associated targets (UNESCO, 2006):

Table1. Education Related Millennium Development Goals and related targets

<p>Goal 2 – Achieve Universal Primary Education</p> <p><i>Target 3: Ensure that all boys and girls complete a full course of primary schooling</i></p> <ol style="list-style-type: none"> 1. Net Enrolment Ratio in Primary Education (UNESCO) 2. Proportion of Pupils Starting Grade 1 who Reach Grade 5 (UNESCO) 3. Literacy Rate of 15-24 year-olds (UNESCO) <p>Goal 3 – Promote gender equality and empower women</p> <p><i>Target 4: Eliminate gender disparity in primary and secondary education preferably by 2005, and at all levels by 2015</i></p> <ol style="list-style-type: none"> 1. Ratio of Girls to Boys in Primary, Secondary, and Tertiary Education (UNESCO) 2. Ratio of Literate Women to Men 15-24 years old (UNESCO) 3. Share of Women in Wage Employment in the Non-Agricultural Sector (ILO) 4. Proportion of Seats Held by Women in National Parliaments (IPU)
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Although nothing in these MDGs as tabled explicitly state formal education, there is clearly the potential for nonformal or informal approaches to contribute to the achievement of these goals, the set targets clearly point to formal educational structures. Balanced against this, however, is the fact that these are education targets and nonformal and informal education and training approaches or interventions may well be contributing to development targets in addition to, even separate from, such targets; the whole premise of this paper is built on the belief that they contribute more broadly to economic development and poverty reduction.

The point that needs to be considered is whether the specificity of these education targets, as a guiding framework for agency education development policy and strategy, has blinkered focus towards basic education and formal educational structures. The following agency précis will attempt to address this consideration.

The following summary reveals that, except for the World Bank in this small sample, inadequate attention is paid to the role of nonformal and informal education in development.

1. Asian Development Bank (ADB)

The ADB education policies and strategies document must be viewed as an overarching framework from which specific approaches at a country program level can be considered; the countries within the ADB purview are not homogenous. The binding elements are the foci on poverty reduction and access for all to quality education that also enables full participation in a nation's development.

Informal education is not defined or referred yet nonformal education does get some treatment throughout the document; initially references to nonformal education relate to the Bank's reflection on schooling receiving broader attention as opposed to the broader concepts of education. The policy points to a shift to consider broader educational approaches that may well better address the needs of poor communities.

The greatest attention in the policy document to nonformal education is linking it as a methodology to help to eradicate illiteracy, citing the challenge of many adult illiterates attending 'formal' learning environments. The importance of addressing literacy levels is significant and the role nonformal education can play in addressing such a concern is important, however nonformal education could do so much more.

It is pleasing, even though only passing attention was given to it, that the role of nonformal education in skills development, including in the entrepreneurial sector was discussed to support income generating skills for the poor.

2. Australian Agency for International Development (AusAID)

The Australian government's education development policy operates through a strategic framework with an overarching objective of poverty reduction and sustainable development, particularly focused on the Asia Pacific region, through giving more boys and girls a better education (AUSAID, 2007). Flowing from this is the aim to have 10 million more children attending school and to assist in enhanced education quality, benefiting another 50 million children.

At a delivery level, the policy focuses on five broad groupings: improve the governance of education systems; strengthen service delivery; improve vocational and technical training; support Islamic education; and, improve English language skills. It highlights a significant focus on formal educational structures, including infrastructure, and approaches. The policy document does not define nonformal or informal education, and refers to only informal education once.

The policy does, however, open the potential for nonformal or informal approaches by referring to seeking innovation to encourage schooling completion and using informal education tools to support English language initiatives. Despite this, there is limited evidence to suggest that a focus beyond formal educational structures and MDG achievement is receiving much attention.

The recently released 2008-09 development assistance budget highlights the context in which the AusAID program operates: 26 million children remain out of school; many of these children are from key disadvantaged groups including children with disabilities and those in extreme poverty. AusAID comments that "ensuring such disadvantaged children enrol in and attend school will require a sustained effort" (p. 16). This is considered inadequate as unless an immediate change in enrolment (and retention) patterns emerge, many of these 26 million children may never receive foundation

education, or possibly even adequate life-skills, if this sole reliance on a formal education solution persists.

3. Department for International Development (DFID)

The DFID 2006 White Paper, within which investing in people captures its thinking about education development contributions, is silent on nonformal and informal education; lacking definition or any reference. The overarching focus is on strategies and approaches to get the 100 million out of school children into schooling. There is some passing attention to contributing to higher education and TVET. Commentary considers some of the barriers to education access, including the need for free schooling. The paper clearly states that universal primary education is the priority.

4. United States Agency for International Development (USAID)

USAID's 2005 education strategy explicitly refers to the role education plays in economic development, suggesting that it can facilitate the achievement of most other development goals. The strategy is quite clear that its primary focus is on basic education, however that it will "invest in selected areas beyond basic education, including focussed efforts in workforce development and higher education" (p. 7).

Nonformal education is discussed as an option for innovative solutions particularly in post conflict environments, where ex-combatants require reintegration into society. The strategy paper also suggests that nonformal education can be viable for youth who never entered formal schooling. While it is acknowledged in the strategy, it really receives only passing attention.

Informal education, however, receives no treatment. This is particularly troubling when the strategy document, in its discussion on challenges, comments that one challenge for education in the developing world is the inadequacy of job skills training; that while many governments provide some avenues for job skills training, public vocational schools are slow to respond to market demands, particularly changes in skills demanded; and, that in most countries, informal learning options are not available (p. 6).

5. World Bank

The World Bank presents an alternate view of the challenges for developing countries and presents a very balanced view of the importance on lifelong learning. This is not to suggest that the World Bank has moved away from the importance of the MDGs and hence a focus on the value of basic education. To the contrary, the World Bank is a convenor of the Education for All Global Action Plan, with the United Nations Educational, Scientific and Cultural Organization (UNESCO), the United Nations Development Programme (UNDP), the United Nations Population Fund (UNFPA), and the United Nations Children's Fund (UNICEF); it continues to transfer to countries about one billion dollars, 50% of resource transfers, for basic education.

In their document, *Lifelong Learning in the Global Knowledge Economy*, nonformal and informal education is given significant treatment. The concepts are defined, appropriately. Its role in the workforce, in skill development and for the informal economy, is each considered. So it is the link back to the formal education structures, recognition and quality assurance.

Models for Nonformal and Informal TVET in Development

Before considering potential models of nonformal and/or informal education and training that could be applied through a TVET lens, it is worth briefly considering two overlaying conditions within which such models might be applied: what TVET 'looks' like in developing countries, in terms of barriers to effective delivery and any link to the informal economy; what, or who, is the informal economy.

1. TVET in developing countries

Pavlova & McLean (2007) discuss issues associated with ageing workforces, in both developed and developing countries, including challenges with retraining an older population and limitations of the effectiveness of the TVET sector. They specifically refer to the UNEVOC-UIS report (2006) and its

commentary on the supply and demand issues associated with TVET in developing countries, summarized in the following table:

Table 2: Supply and demand challenges in delivering effective TVET in developing countries

<p>Supply</p> <ol style="list-style-type: none"> 1. Lack of public finance for physical infrastructure and equipment 2. Lack of adequately trained instructors 3. Problems of communication and coordination, particularly in remoter areas 4. Inadequate ICT infrastructures 5. Inadequate system capacity 6. Inadequate routine maintenance of the physical plant and equipment. <p>Demand</p> <ol style="list-style-type: none"> 1. Low levels of literacy which impede participation in TVET 2. Lack of resources to pay for TVET tuition and materials 3. Inadequate information and counselling with regard to what is available 4. Traditional attitudes, which constrain female access to TVET.

While there is no suggestion that these issues are irrelevant or inaccurate, it is interesting to reflect that they seemingly talk to an analysis of developing nations' skilling requirements from a formal TVET perspective. This observation would seem to be supported by a later reference in Pavlova & McLean's paper to TVET in Africa, citing Atchoarena & Delluc (2002) who comment on the strategic role TVET should play in the economy particularly for the informal [economy]; yet in the case of African TVET, the needs of the informal [economy] are not adequately regarded. It is suggested that this is not unique to Africa. As Watson (1994) comments, "TVET has proved to be expensive and frequently irrelevant or unsuitable for individual LDC [Less Developed Countries] needs" (p. 85).

2. 'Who' is the informal economy?

Many in the informal economy are quite visible. People sell produce from roadside stalls in Jakarta; drive jeeps in Manila and tuk tuks in Bangkok; they collect cardboard in Wuxi; and they probably perform similar functions in Sydney. Yet, many in the informal economy are less visible. They work in small shops, down narrow backstreet laneways; they work as mechanics; they repair clothing. Many of them, particularly women, work from home. Importantly, the ILO (2002, p. 24) considers their contribution to a nation's GDP as significant. The ILO's statistical analysis presents the following main findings on the informal economy [informal sector is used purposely in the following table as the statistically defined term adopted by the International Conference of Labour Statisticians 1993 (p. 11)]:

Table 3: 'Who' is the informal economy? ILO 2002 Main Findings

<ol style="list-style-type: none"> 1. It represents up to three-quarters of non-agricultural employment in developing countries 2. It comprises self-employment and informal enterprises, with self-employment capturing a greater proportion of informal employment (outside of agriculture) 3. The two largest sub-groups are home-based workers and street vendors, representing 5% of the total workforce, and up to 25% of non-agricultural workforce in developing countries 4. There is generally more women in informal employment 5. Estimates of informal sector's GDP, as a contribution to total non-agricultural GDP is significant: Northern Africa (27%); Sub-Saharan Africa (41%); Latin America (29%); Asia (31%).
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3. Moving beyond formal structures and approaches

There is no suggestion that TVET needs to move ‘away’ from formal structures to more effectively contribute to skill development and poverty reduction. It is actually contended that the opportunity for enhanced links between nonformal, informal and formal TVET should be explored. The suggestion, however, is that TVET must step further outside of the comfort of curricula and infrastructure to help to better skill a developing nation’s workforce, specifically persons within the informal economy.

One consideration for developing approaches to nonformal and informal learning, particularly in the informal economy, is to work within existing, arguably cultural, operations and learning approaches; specifically the notion of learning by modelling or ‘seeing then doing’. This is supported by Singh (2000) who comments that “training in the informal sector would have to give due consideration to traditional and informal methods of acquiring vocational competencies, taking into account the social and cultural contexts of the people in defining and promoting the use of knowledge” (p. 611).

Barber (2004) explores the ‘see and do’ learning style further in discussing the impact of informal training on skill upgrading drawing on examples from the auto-mechanic trade in India. Barber’s findings suggest that the observed mechanics’ dominant form of learning was repetitive procedure and that their skill development and learning was more through tacit knowledge acquisition, or experiential learning, as opposed to reflective practice. In this model there is often a level of instruction in the initial acquisition of skill, however skill mastery is mostly through self application. Additionally, it is possible that some skill acquisition within such an informal workplace may be incidental or unintended, as learning may well commence from an observation driven approach, as opposed to a guided approach, hence individually motivated as opposed to immediate requisite skills to perform current roles.

A second consideration relates to innovation, flexibility, responsiveness, access and technology. These are all terms that come to mind as essential elements in developing and implementing models of nonformal and informal TVET approaches. Consider the example of the ‘Hole-in-the-Wall’ research undertaken in India and further expanded into Egypt, South Africa and Cambodia. A single PC was recessed into a wall facing a slum and with minimum intervention previously computer illiterate children were able to attain a level of computer literacy (Dangwal et al 2006). Innovation, access and technology in this example combined to create a positive impact on skill learning; a model was formed, that undoubtedly could be applied to a range of TVET applications; and notwithstanding variation in learning styles between children and adults, why couldn’t these principles be applied to adult learners in the productive sectors of society, formal and informal? Could technology provide the initial demonstration of an engine disassembly for an Indian auto-mechanic as opposed to always using a master to apprentice, or teacher to student, approach?

A third consideration, which is certainly by no means the last, is how the concepts of credentials and qualifications through a level of linkage to formal recognition structures can be cultivated, particularly where there is a link between economic potential or employment opportunity and skills and knowledge recognition. If we view, as does La Belle (1982), formal, nonformal and informal education as predominant modes of learning (p. 162) rather than discrete entities, then it is not difficult to consider the role different learning modes play for various skill and knowledge development needs, and equally how the sum of all parts could package in some form of recognition. In western paradigms the concepts of *recognition of prior learning* or *recognition of current competence* have been part of the TVET fabric for some time; maybe an associated model to enhance or facilitate mobility out of the informal economy into formal employment might be through some testing or recognition regime to support the attainment of requisite credentialing for certain fields of employment?

Wurzberg (2005) succinctly captures the importance of these considerations, which highlights implications for TVET teachers and trainers, as well as the system and its policy makers:

“unless there are means for signaling the outcomes of informal and non-formal learning in ways that are recognizable to the formal education/training sector and/or labour

markets, the incentives to invest in learning outside the formal sector will be weakened”
(p. 72).

Implications for TVET Teachers and Trainers

One of the lessons learned from Singh’s (2000) work on the implications for education, training and skills development in the informal economy highlights the challenges, or at least considerations required, for TVET teachers and trainers:

“it takes a combination of methods of vocational education theory, on-the-job training and diverse sorts of non-formal education methods and informal learning to provide a flexible and diversified system of education and training” (p. 617).

If we are to accept the premise of this statement, which this author does, then the training of teachers and trainers of TVET must extend beyond developing competencies to be applied in formal instructional settings. Then there is the question of who is a TVET teacher? Yoloye (1987) writes of professions in the “nonformal sector” (p. 349) that have workers who are essentially teachers, by function, though not title and probably without training for the role of a teacher or trainer. Should we also consider this cohort to be TVET teachers or trainers and if so, how does the TVET system respond to their development needs as well?

While there are potentially numerous implications for TVET teachers and trainers, a few stand out as being immediate: curriculum; delivery; technology. It is beyond the scope of this paper, however it is important to at least acknowledge at this point that investment and resourcing considerations are essential, for without which, what might be required of TVET teachers and trainers may be compromised.

Singh (2000) presents commentary drawn from the separate works of Boehm (1997) and Karcher (1997) on potential curricular implications, which are précised in the following table:

Table 4: Implications for TVET curriculum development to cater for the needs of the informal economy

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| <ol style="list-style-type: none">1. Limit volume of instructional materials2. Incorporate examples from concrete tasks3. Ensure workers’ active participation4. Be problem-oriented5. Use alternative to curricula in written form6. Design learning activities around the repair of product7. Target approaches that match anticipated learning preferences, e.g. ‘see then do’8. Basic education provision must be addressed as fundamental to competency development9. Activities must be learner-centred. |
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What is really interesting from this précis, though hardly surprising, is the necessity of basic education as a foundation for other competency development. This is critically important in the context of the role of a TVET teacher or trainer, particularly where targeting activity within the informal economy. Recognising that many in the informal economy have not progressed through, or possibly even commenced, basic education, curricula and its delivery must include some fundamental aspects of numeracy and literacy if the knowledge and skill improvements in the informal economy are to be adequately impacted.

Implications on TVET teacher and trainer delivery are not insignificant. There is undoubtedly a level of comfort and predictability in delivering within formal settings, be they institutional or workplace. These settings continue to have their place in the TVET fabric. However, there are frayed ends to this fabric, or more metaphorically appropriate there are tentacles from this formal environment into the informal economy that need to be actively followed. The delivery approaches, however, that come from the formal environment clearly need to be different.

The third category that has implications for TVET teachers and trainers, both positive and challenging, relates to the use of technology or technologies. The most basic implication is that technology must become integral in all aspects of TVET delivery, particularly to effectively address the needs of the informal economy, and this requires a level of competence to ensure appropriate application. The use of technology need not be considered daunting as with most aspects of teaching and training, there are levels to which approaches can be applied. Television, radio, software and so on should all be considered technology, just as are podcasts, data-streaming, videoconferencing and online learning. The fundamental skills and experiences that TVET teachers already possess in terms of educational programming and packaging is what should determine the best tool or approach for a given situation. What could be missing, hence seeking some consideration in teacher training activities, is a thorough enough knowledge of 'what is best' for certain informal settings.

Conclusion

The same cautionary note as written in 1976 by Martin Grandstaff holds true today, that "nonformal education is not a panacea for educational deficiencies in development". This paper does not suggest that the immediate adoption of nonformal and informal education strategies will solve all the problems of the world. Equally, this paper does not suggest that there should be a shift away from a focus on MDG achievement, a shift away from the importance of basic education in development. This paper does, however, contend that the integration of nonformal and informal education strategies in development should be considered core complementary approaches to addressing the issues of poverty reduction in the developing world. This in part requires a renewed policy focus by key development agencies to more actively and directly consider nonformal and informal education and training solutions. It also requires the TVET sector to further consider how it can contribute to the development of economies through greater engagement in nonformal and informal education strategies alongside institutional and organisational vocational training practices. For the TVET sector to fully contribute to the level of potential it holds, further consideration is required with regard to the training of vocational teachers and trainers to effectively engage in nonformal and informal delivery practices, including within the informal economy.

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