E-DISCUSSION: Providing the right skills at the right time: The role of sectoral skills development in contributing to productive and competitive economies

Hosted on the Skills for Employment Knowledge Sharing Platform 3 to 14 October, 2016
Summary of E-discussion on:
“Providing the right skills at the right time: The role of sectoral skills development in contributing to productive and competitive economies”.
Hosted on the Skills for Employment Knowledge Sharing Platform
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This E-Discussion was arranged through support provided by the Korea International Cooperation Agency (KOICA) and the Swedish International Development Cooperation Agency (SIDA).

Introduction
Helping enterprises find workers with the right skills, and ensuring that workers acquire the skills they need to find productive employment, is a key to economic prosperity and building inclusive societies. Adopting a forward-looking perspective to improve the competitiveness of a certain industry or sector and its future success by upgrading the skills of its workers contributes to national economic growth and diversification, and decent jobs. To examine the central role of education and vocational training in promoting employability of workers that contribute to the sustainable development of national economies, the Global Skills for Employment Knowledge Sharing Platform (Global KSP) hosted an E-Discussion entitled “Providing the right skills at the right time: The role of sectoral skills development in contributing to productive and competitive economies” from 3 to 14 October.

The E-Discussion provided a forum for experts, practitioners and representatives from a range of institutions and enterprises in different parts of the world to come together virtually to raise questions, and share experiences and good practices on strengthening skills systems to improve their responsiveness to labour market demands, industry-led approaches to sectoral skills development and forward-looking strategies for developing skills.

To guide the discussion, participants received several ILO resource items and were asked to comment on a series of questions posed by ILO moderators Con Gregg, Maria ("Cocoy") Concepcion Sardaña, Bolormaa Tumurchudur-Klok and Naomy Lintini. The global dialogue drew nearly 90 posts from 12 countries in Africa, Asia-Pacific, Latin America, Europe and the Middle East. It highlighted solid examples of good practices of industry led approaches to sectoral skills development, in particular, the ILO’s quality apprenticeship programme; the role of industry skills councils in anticipating the needs of a sector for current and future skills training; and forward-looking strategies for developing skills in a particular sector, mainly the ILO’s Skills for Trade and Economic Diversification (STED) methodology.

E-Discussion overview
The E-Discussion was divided into two parts: part one focused on the current situation and challenges in delivering the right, or relevant, skills at the right time in response to labour market demands; part two explored what approaches and strategies have worked in promoting sectoral approaches to skills development. In each part, a series of questions were raised to guide the discussion. This report provides an overview of responses to each question and the key messages that emerged.

About the Global KSP
The Global KSP shares the approaches and experiences that international organizations, governments, employers and workers have found effective in strengthening the links between education and training to productive and decent work.
Key messages

- Strengthening training systems to develop the right, or relevant, skills in response to current and future labour market demands requires industry engagement in training development and selected stages of training delivery, technical upskilling, and updating the skills, of teachers/trainers to deliver quality skills and competencies needed, and upgrading learning facilities in TVET institutions.

- Efforts to reform TVET institutions so that they align more closely with competency-based training linked to labour market needs are perceived by many low-income countries as requiring increased financial investments in the learning and assessment processes, thereby exerting additional pressure on national budgets.

- Learning- and competency-based approaches should be adapted to respond to the specific needs of each country.

- In some instances, government heavily finances workforce skills training initiatives. While this may be needed initially as an incentive for engaging industry, skills development of the workforce is more the responsibility of the private sector. Where there is heavy government financing of workforce skills initiatives, a gradual shift towards cost sharing is necessary.

- Financing skills development systems is costly, and it can be challenging for governments to allocate sufficient budget in competition with other priorities.

- While the importance of engaging industry in skills development systems is widely recognized, the level of actual engagement of industry is still low in many parts of the world.

- Industry skills bodies, such as sector skills councils and industry skills councils, are increasingly seen as effective mechanisms to engage industry. Such institutional mechanisms provide a platform for industry to gain experience, have their voices heard and make significant contributions to skills systems.

- Teachers, instructors and trainers face additional difficulties in equipping the new entrants to the labour market with core soft skills – effective communications, ability to learn, teamwork, adaptability, problem solving, among others – deemed critical for navigating through increasingly uncertain labour markets.

- Promoting Occupational Safety and Health (OSH) literacy in general education as well as part of a focused programme of vocational study is an important work and life functional literacy skill.

- Apprenticeships are effective models of industry/employer led approaches to sectoral skills development, with the ILO’s Quality Apprenticeship programme highlighted as a good practice example. Under the programme, employers articulate their skills needs and identify skills mismatches in selected sectors with job creation potential. The model makes sense in increasing the employment prospects of young people and in closing skills gaps.

- The ILO’s Skills for Trade and Economic Diversification (STED) programme, which works at the sectoral level, provides a good practice example of how the Organization supports
member countries in identifying and anticipating the skills they need most to enable the future success of economically important tradable sectors.

- Sectoral approaches to skills development are relevant for all countries, regardless of their size.

**Highlights from the E-Discussion**

Below are highlights of the contributions provided by participants of the E-Discussion divided by the questions raised in regards to “**Where are we on skills? Current situation and challenges**”, and “**Initiatives and what work to promote sector based approaches to skills development**”. For the “Full responses” of this dynamic discussion, please refer to **Annex A**. For the complete list of resources (international standards, good practices, publications, manuals/tools, web-based resources and videos) referred to by participants, see **Annex B**.

**Part one: Where are we on skills? Current situation and challenges**

Q1. In recent years, some countries have experienced economic growth that has highlighted the shortage of skilled workers in those countries. Within this context, what particular challenges do governments face in imparting quality skills training? What barriers do employers and the private sector confront in filling jobs? And, what obstacles do workers, in particular young people, face in obtaining the right skills to prosper in today’s labour market?

In responding to the question of challenges faced by governments, discussion participants identified, among others, the following:

- Limitations in the skills of teachers, instructors and trainers;
- Capacity to partner and collaborate with stakeholders and partners;
- A lack of future skills needs preparedness and capacity;
- Fiscal limitations particularly in the context of capital investment;
- Quality indicators not including employability, outcome and labour market type indicators; and,
- Catching up with the pace of change in the marketplace, labour market and technology.  

With respect to the issue of teacher/trainer skills and the challenges in staying up-to-date, one participant observed:

_Availability of master trainers is a major challenge that the governments face in providing quality skills training. The lack of provision for preparing master trainers, with suitable soft and technical/vocational skills, has been a major impediment in imparting quality skills training. People who possess “quality skills” prefer to do jobs in industry, rather than opting for a career as a trainer. This is more so because jobs in Industry are well paid as compared to the training institutions. Therefore, in order to attract talented and experienced trainers, it is imperative to provide better pay and incentives to the trainers as compared to the best-paid jobs in the Industry._
Commenting on the question of the barriers faced by employers and the private sector confronting filling jobs, one participant submitted a list of the obstacles, which included: capability to partner and collaborate with stakeholders and partners; availability of suitably competent persons; underinvestment in continuing employee development; lack of employability of prospective new entrants; and, capability to identify needs that are both current and future oriented. (3) Another participant summarized the challenges encountered by employers as follows:

> Most of the studies have shown that the lack of employability skills, especially good communication skills and teamwork are the major factors that the employers and private sector confront in filling the jobs. (4)

Agreeing with the observation expressed above, one discussant expressed:

> It's also crucial not to forget soft skills in the competency based approach. In Mozambique, in a very recent study, employers clearly stressed that the main obstacle in the recruitment of young Mozambicans are soft skills – commitment to work, decision making, autonomy, communication skills – and not so much technical skills. (5)

Adding to the conversation on obstacles faced by workers, in particular young people, in obtaining the right skills to prosper in today's labour market, participants posted:

> Entry-level workers generally lack experience and therefore, face difficulty in adjusting to the work environment and rigorous work schedules. They need to be trained on soft skills, such as self-management, stress management, standard operating procedures, office procedures, etc. (6)

> A lack of work experience, low levels of awareness of employability and transversal skills. Not being challenged or prepared for the World of Work. (7)

> All stakeholders have a duty-of-care to ensure that young people have the requisite levels of Occupational Safety and Health (OSH) literacy prior to them encountering it for the first time in work or training. Having it recognised as a key literacy will enable teachers to teach it as such and will make it more likely to be easily incorporated into mainstream curriculums. (8)

Q2. In some countries, vocational education and training takes on a supply-driven model where education systems and establishments alone decide what kinds of qualifications are needed, as opposed to a demand-driven model that considers the needs of the labour market. What has been your experience in working with supply-driven models, and what can be done to accelerate the shift to a demand-driven approach?

Participants of the global discussion were largely unanimous in rejecting supply-driven approaches as they are mostly not very forward looking and result in skills mismatch that cause significant problems. As expressed by one of the moderators, “Good forward-looking approaches that I have seen in skills supply mostly pay close attention to industry demand, and work closely with industry to anticipate what skills are needed for new developments and innovation.” (9)

Commenting on supply driven approaches and resulting skills mismatches, one participant from Senegal observed the increasingly important role of workplace learning to compensate for the phenomenon:
I believe that in many countries such as Senegal, demand, (that is, the sector that employs) and supply (that is, the area that forms) do not know each other. Each one works on its own. The trainers are certainly very good, however, they often have difficulty integrating what the companies need because they don’t know what they (companies) need. Indeed, business realities cannot be taken into account by the trainers. Because of this, we will have a product that does not correspond at all to current developments in trades and skills (needed). Yet, for competitive business needs, companies need a product (employees) that is able to immediately integrate because there is no longer time to adapt. More and more learning in the business becomes indispensable, making essential training while working. (10)

In shifting to demand-driven systems of training, one discussant working with the TVET reform project in Bangladesh offered insights into some of the challenges in the transition process:

Supply driven systems do not satisfy the demands of the labour market. We recently piloted a demand driven system and it has started growing. But we are facing challenges, particularly in industry engagement in training development and few stages in training delivery, technical upskilling of teachers/trainers to deliver industry driven competencies, upgrading the labs of the TVET institutions with require equipment and teacher training to deliver the competencies. As the Human Resources Development Fund (HRDF) is not yet established in Bangladesh, engaging industry in skills development is another challenge. (11)

Despite the large numbers of participants advocating for competency-based approaches to training and education, a couple of discussants argued in favour of institutions delivering a rounded education. One participant, in particular, had this to offer:

Among those who advocate competence-based approaches to training and education there appears to be clear preference for programmes that enable students/trainees to act, to do things, to apply what they have learned in a social, occupational and material world and not merely to understand, to analyse, to discern, to reflect. Does this represent deviation from the values of a rounded education? At first sight maybe it does. Peters (1966) led the way in establishing an over-simple distinction between education and training. Education, according to Peters, is a non-instrumental and worthwhile for its own sake, and its aims are intrinsic rather than extrinsic. This may be contrasted with the utilitarian character of training - a contrast that could be extended to the kind of characterisation of competence based education. (12)

Q3. How can existing infrastructure for skills development – TVET institutions, universities, industry training institutions, secondary schools (in association with the private sector), etc. – better adapt their services to the needs of the labour market?

With respect to TVET and skills development systems, one participant said that in better adapting to the needs of the labour market, priority should be given to, among others: delivery of demand-driven approaches to TVET and skills development; systematic professional development of TVET and skills development trainers / teachers/instructors; keeping pace with technological advancements and providing for appropriate use of technology in TVET and skills development; and continuing TVET, skills development and lifelong learning. (13)

The same discussant also suggested “vocationalization of higher education in developing countries.... that TVET and skills development develop close interfaces with higher education and other education...
sectors to facilitate seamless pathways for learners with an emphasis on relevant work experience and allow learners to enter gainful employment or pursue higher education opportunities.”

Another participant mentioned:

The TVET institutions, universities, industry training institutions, secondary schools should work closely with the local industry to meet the demand for skilled manpower. Labour Market Information System (LMIS) should be utilized for assessing manpower needs. (14)

A country example from Mozambique highlighted how competency based training is being applied to TVET institutions to ensure market relevance of training provided and the expected results:

In Mozambique, the ILO is helping the Government to adapt vocational education and training to the actual needs of the labour market and will support, in the near future, a specific project to adjust TVET institutions to the new law governing professional education that was approved in September 2014. The law establishes new standards and practices for state and non-state providers, encompassing both technical skills training and vocational training. It embraces public, semi-public and private TVET providers. The new legislation aims to modernise national training by making it more demand-driven and market-responsive, seeking a strong involvement of the private sector.

Competence-Based Training (CBT) will be applied in all TVET institutions, to ensure market relevance of training offer and individual schools will increased financial, administrative and pedagogical autonomy. The new law also intends enhancing private sector participation in: 1) school management through PPPs and specific powers to approve the School Activity Plan and to appoint the School Director; 2) curriculum and qualification design through participation in School Management Committee. (15)

Q4. What particular challenges do teachers, instructors and trainers face in equipping new entrants to the labour market with the relevant skills?

Views shared by participants on this question included:

Teachers, instructors and trainers face the difficulty of equipping the new entrants with soft skills, as it largely depends on the educational achievements of the person. (16)

Our teachers and trainers are ill-trained to deliver relevant and quality skills to their students. (17)

Inadequate support on relevant methodologies and poor working conditions. (18)

Part two - Solutions: “Initiatives and what work to promote sector based approaches to skills development”
Q.5. Sectoral skills development approaches have proven useful in engaging employers, albeit they take different forms within different national contexts. What models of employer engagement have you identified as being effective when examining approaches to sectoral skills development?

Drawing from their professional experiences, participants offered several examples of employer engagement in sectoral skills development in a range of industries including trade, mostly in connection to ILO’s Skills for Trade and Economic Diversification (STED) programme; mining; gas; and, oil. Moreover, apprenticeships for any occupation were strongly supported as an effective model for cultivating growth and improvements in the workforce and industry. The ILO’s quality apprenticeship programme, in particular, was highlighted as a good practice example. As explained by one of the moderators: “Under the programme, employers articulate their skills needs and identify skills mismatches in selected sectors with job creation potential. The model makes sense in increasing the employment prospects of young people and in closing skills gaps.” (19)

Below are some of the examples of employer engagement in skills development referenced in the discussion:

<table>
<thead>
<tr>
<th>Examples of employer engagement in skills development</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitor Lehrer-bildung (Teacher training/Dual VET system: <a href="http://www.monitor-lehrerbildung.de/web/">http://www.monitor-lehrerbildung.de/web/</a>)</td>
<td>Germany</td>
</tr>
<tr>
<td>The Federation of Industries of the State of Paraná (FIEP)/The Brazil “S System”</td>
<td>Brazil</td>
</tr>
<tr>
<td>Workplace Education Programme (Mining): <a href="https://edunorth.wordpress.com/">https://edunorth.wordpress.com/</a></td>
<td>Canada</td>
</tr>
<tr>
<td>Competency Based Education and Training CBET System for Technical and Vocational Education and Training and the Competency Assurance Management System for Competency Based Workers / Trainees / Students Assessment and Verification (Oil and Gas)</td>
<td></td>
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</tbody>
</table>
Q.6. What role can tripartite sectoral skills councils play in anticipating the needs of a sector for current and future skills training, assessing the quality and relevance of training programmes and improving relevance?

As observed via this global dialogue, significant engagement of industry in skills development is still at the early stages of evolution in many parts of the Asia Pacific region. However, a couple of countries have taken a major step forward by setting up institutional mechanisms such as Sector Skills Councils (SSC) in India, and Industry Skills Councils in Bangladesh (ISC). One participant drawing from his experiences as a TVET consultant in India contributed the following on the role and relevance of SSCs:

Sectoral approach has come to occupy an important position. India has already established 38 Sector Skill Councils. There are Sector Skill Councils established for informal sectors.

There are approximately 450 Corporate Representatives in the Governing Councils of these SSCs.

Sector Skill Councils (SSC) are set up as autonomous industry-led bodies for steering skill development and training. They: create occupational standards; develop competency frameworks; conduct Train the Trainer programmes; affiliate Vocational Training Institutes; conduct skill gap studies in their sector leading to a Labour Market Information System; assess and certify trainees on the curriculum aligned to National Occupational Standards developed by them.

Some highlights:
- 38 Sector Skill Councils (SSC) approved in services, manufacturing, agriculture & allied services, and informal sectors. Sectors include 19 of 20 high priority sectors identified by the Government and 25 of the sectors under Make in India initiative.
- Vocational training introduced in 10 States, covering 2,400+ schools, 2 Boards, benefitting over 0.25 million students. Curriculum based on National Occupational Standards (NOS) and SSC certification. Work is going on with 21 universities, Community Colleges for alignment of education and training to National Skill Qualification Framework (NSQF). (20)

Another discussant who is working on the TVET Reform project in Bangladesh shares the following on demand-driven curriculum development, anticipating future skills needs and the role of ISCs in this regard:

Formation ISC was very challenging for Bangladesh. In the last 6 to 7 years, we were able to form 12 ISCs. ISC’s were formed based on several study reports indicating skills demand for the priority industry sectors of the country’s economy. Formation was very challenging as every business has its sectoral competition. It was not very easy to gather the sector leader together. However, Bangladesh Employers Federation (BEF) and Federation of Bangladesh Chambers of Commerce and Industry (FBCCI) the apex industry bodies helped the formation of ISCs.

ISC leaders identified the priority occupations in demand for skill development of their sectors. ISC leaders together with the central body of Curriculum Development (BTEB) formed a Standards and Curriculum Development Committee (SCDC) for each of the occupations. The ISC leaders nominated industry experts for specific occupations for each SCDC.

Each SCDC identified the core competencies for the occupations, sectoral competencies, competencies for necessary literacy and numeracy, necessary communication skills and
Occupational Safety and Health (OSH). Curriculum experts along with the SCDC members packaged the competencies as per the skill levels. Competencies were piloted in few selected TVET institutions and Industry was involved in the overseeing the training programme and in assessment by Industry Assessors (Third party assessment) at the end of the course. Each of the pilot institutes formed an advisory committee involving industry.

For the sustainability, a funding mechanism for the ISCs are under discussion. The Government through the National Skills Development Council (NSDC) Secretariat is trying to develop a funding model for the ISC. (21)

Q.7. What are some effective examples of forward-looking strategies for developing skills in a particular sector that will improve the performance of enterprises and keep the skills of workers up-to-date?

Co-moderators of the discussion took the opportunity to highlight specific features of the ILO’s STED programme that is designed to support member countries in identifying and anticipating the skills most needed to enable the future success of economically important tradable sectors, which a view to increasing decent employment through successful participation in trade.. Below are excerpts of a few contributions made by the co-moderators with respect to STED:

The underlying logic is that successful participation in trade is a key driver of development that can have big benefits for developing countries in terms of raising productivity and incomes, strengthening enterprise, and providing better employment opportunities both for women and for men. The potential benefits are not limited to exporting sectors. They can extend to sectors that supply them with goods and services too, like for example with agriculture getting access to export markets through food processing enterprises. (22)

When the programme first started, we focused chiefly on analysis. As it has developed, the emphasis on working closely with national and sector partners, and on developing their capacity to do this work themselves, has increased. The programme also now aims to support partners in implementation, through a combination of work under the programme, through work by national and sector partners themselves, and through partnering with other ILO programmes and with other development partners. (23)

In line with Cambodia’s National Employment Policy (NEP) 2015-2025, the ILO is working closely with the Directorate General of Technical Vocational Education and Training (DGTVET) and the National Employment Agency (NEA) in implementing a STED approach in two sectors - light manufacturing and food processing, both of which are among the priority export sectors identified under the Cambodia Trade Integration Strategy (CTIS) 2014-2018. Assessments of the two sectors using the STED methodology in early 2016 indicate a positive outlook among firms in both sectors. However, the studies also informed that skills shortages reflected in recruitment difficulties and skills gaps among existing workers are among the main challenges of light manufacturing and food processing firms, including exporters. To support the economic development of these sectors, DGTVET is now leading the development of competency standards for priority occupations under the STED project. In Myanmar, the STED Project is contributing to the development of the Tourism HRD Strategic Action Plan with the incorporation of specific strategies on tourist guides. (24)

Many sectors can benefit from sector based skills development approaches. In Malawi for example, the ILO, through STED, is implementing a value chain based skills development programme for the horticulture sector. Both the design and implementation of the
programme is being undertaken with the active participation of the Employer’s Consultative Association of Malawi who were instrumental in mobilizing the private sector companies to offer work based training for the learners. (25)

Q.8. To what extent are countries considering the specific needs of their key sectors when developing national level skills development policies/TVET strategies?

Drawing from his consultancy experiences, one participant referred to India’s TVET system reform, and the development of Sector Skills Councils highlighting their involvement in setting occupational standards and strengthening skills development systems:

*In December 2013, the Government of India issued a notification with regards to the National Skill Qualification Framework (NSQF). An important aspect of this notification is “Industry Engagement” which states:*

> “Since the NSQF is based on an outcome-based approach, participation of the industry and employers is a critical prerequisite for the success of NSQF. Vocational education, vocational training, general education and skill development courses will be designed, developed, delivered, and learners assessed and certified in accordance with the NSQF in consultation with SSCs (Sector Skill Councils), industry and employers. In addition to this the industry may also provide support in terms of providing training institutions”.

As is evident from the above, sectoral approach has come to occupy an important position. India has already established 38 Sector Skill Councils, which include Auto, Retail, IT/ITeS, Media and Entertainment, Healthcare, Gems & Jewellery, Leather, Electronics, BFSI, Logistics, Construction, Food Processing, Life Sciences, Hospitality, Textiles & Handlooms, Apparels, Handicraft, Power, Iron & Steel etc. among the priority sectors. Besides this there are Sector Skill Councils relating to Large Workforce Sector such as Telecom, Capital Goods, Agriculture, Mining etc. In addition there are Sector Skill Councils established for informal sectors like Security, Plumbing, Beauty & Wellness etc. Sectors include 19 of 20 high priority sectors identified by the Government and 25 of the sectors under Make in India initiative. (26)

In Bangladesh, another contributor who is working on improving the quality and functioning of the TVET system through national qualifications linked to individual competency standards, and the introduction of Industry Skills Councils in priority industries offered the following:

*Skills mismatch is a big concern for Bangladesh. To address the agenda, an industry driven curriculum development process has been developed and introduced in a few industry sectors under the Bangladesh Technical Education Board. This new initiative started in 2012 after the approval of a new National Skills Development Policy - 2011. Industry Skills Councils (ISC) have been formed in few priority industry sectors and priority occupations were identified by the industry bodies. Competency Standards and Course Accreditation Documents for those priority occupations are developed and introduced in few institutes. Industry is involved in course development and also in assessment of graduates after completion of courses.

This new process is growing and few TVET institutions are trying to adopt to the new system, but the rate is very slow. It requires huge investment, specifically for teachers training, lab setting and assessor development. (27).
Conclusion
Ensuring quality training not only helps enterprises find workers with the right skills, but also increases the employability of workers. Yet, optimizing the quality of training requires commitments from governments, employers’ and workers’ organizations. Moreover, in increasing the responsiveness of skills training systems to meet current and future skills needs, employers are best placed to anticipate changes in the business environment and determine future skills demands. These are among the key observations and views shared by discussion participants during the two-week long virtual conversation. The dialogue also concluded that if quality skills training is considered critical to the development of national economies and recognized as a priority area then the issue of resources should be tackled. In this regard, in terms of financing skills training a gradual shift towards cost sharing is considered necessary.

As a collaborative, web-based tool for promoting good practices, lessons learned and experiences on what works to link skills development to productive and decent work, the Global KSP will continue to organize E-Discussions covering a range of topics, including anticipating future skills needs, private sector participation in skills development, overcoming stereotypes in skills training, and others. By exchanging experiences and ideas, valuable lessons can be learned, shared and built upon, allowing for more effective solutions on how to provide women and men with the right skills and training that are fundamental to success and productivity, building careers and improving livelihoods.

End
ENDNOTES – page number references to be added subsequently:

(1) The majority of the challenges identified were contributed by Rónán Haughey, see page 47 of Annex A “Full responses to E-Discussion”.
(2) Vinay Swarup Mehrotra, see page 41 of Annex A “Full responses to E-Discussion”.
(3) Rónán Haughey, see page 47 of Annex A “Full responses to E-Discussion”.
(4) Vinay Swarup Mehrotra, see page 42 of Annex A “Full responses to E-Discussion”.
(5) Ana Paulo, see page 53 of Annex A “Full responses to E-Discussion”.
(6) Vinay Swarup Mehrotra, see page 42 of Annex A “Full responses to E-Discussion”.
(7) Rónán Haughey, see page 48 of Annex A “Full responses to E-Discussion”.
(8) David Magee, see page 37 of Annex A “Full responses to E-Discussion”.
(9) Con Gregg, see page 43 of Annex A “Full responses to E-Discussion”.
(10) Sarr Souleymane, see page 44 of Annex A “Full responses to E-Discussion”.
(11) Hari Pada Das, see page 32 of Annex A “Full responses to E-Discussion”.
(12) Joseph Hegarty, see page 54 of Annex A “Full responses to E-Discussion”.
(13) Moustafa Wahba, see page 61 of Annex A “Full responses to E-Discussion”.
(14) Vinay Swarup Mehrotra, see page 42 of Annex A “Full responses to E-Discussion”.
(15) Ana Paulo, see page 52 of Annex A “Full responses to E-Discussion”.
(16) Vinay Swarup Mehrotra, see page 42 of Annex A “Full responses to E-Discussion”.
(17) Noreen, see page 40 of Annex A “Full responses to E-Discussion”.
(18) Albert, see page 40 of Annex A “Full responses to E-Discussion”.
(19) Bolormaa Tumurchurduk-Klok, see page 18 of Annex A “Full responses to E-Discussion”.
(20) G. S. Sethi, see page 50 of Annex A “Full responses to E-Discussion”.
(21) Hari Pada Das, see page 35 of Annex A “Full responses to E-Discussion”.
(22) Bolormaa Tumurchurduk-Klok, see page 27 of Annex A “Full responses to E-Discussion”.
(23) Con Gregg, see page 16 of Annex A “Full responses to E-Discussion”.
(24) Cocoy Sardaña, see page 16 of Annex A “Full responses to E-Discussion”.
(25), Naomy Litini, see page 27 of Annex A “Full responses to E-Discussion”.
(26) G. S. Sethi, see page 50 of Annex A “Full responses to E-Discussion”.
(27) Hari Pada Das, see page 55 of Annex A “Full responses to E-Discussion”.
Annex A

Conversation thread: E-Discussion on “Providing the right skills at the right time: The role of sectoral skills development in contributing to productive and competitive economies”, hosted on the Skills Knowledge Sharing Platform, 3 to 14 October

Bolormaa Tumurchudur Klok * 3 days ago

Dear All,

We have reached the end of our discussion on effective models of employer engagement for sectoral skills development and the role of tripartite skills councils. We would like to thank you all for your active participation and sharing your experiences and good practices. We trust that you enjoyed the discussion and that you found the different inputs as informative as we did. If you have any further questions or comments concerning this E-discussion, please kindly contact us at: knowledge@skillsforemployment.org.

Regards,
Naomy and Bolormaa

SkillsforEmployment * 2 minutes ago

Mohamed Nayef A. Rahman of Jordan posted the following:

Based on the experience of the ILO STED Project (Skills for Trade and Economic Diversification), which worked on sectoral level, there is a strong need for skills development programs, on the different level of the organization.

Designing a skills development program on the sectoral level is more efficient than designing it on the general skills profile of a group of sectors.

Based on our experience, I think that the followings are the advantages of sectoral level skills development:

1. More Accurate. As in the design phase, close and deep discussions should be held with the sector's experts, to express the actual skills needs according to their practical and operational experience.
2. More Relevant. The sectoral level skills development programs will provide an analysis of the actual skill needs (current), and will give sufficient information to forecast future skill needs, so the design of the skills development programs will fit the actual current and future needs.
3. More efficient, cost effective methodology. Working on a sectoral level will limit the fragmentation in discussion, planning, and result. As long as we can use a very specific and narrow (scope) in defining the skill needs, that will give more efficient outputs to be used in the designing phase of any skills development. This will also cut the time and the cost needed in the analytical phase and will give a better needs assessment result. Broad discussion line that is used in general skills profiling will take a longer time and cost more, and will lead to general results.

4. Comprehensive. Designing a skills development program on the sectoral level will help in bridging the gap of skills in all levels in the sector and the organization. This approach will link the management level skill needs with the production level and other levels inside the organization. On the other hand, with the participation of all stakeholders (sector companies, employers’ associations, employee associations, the government, educational institutions at all levels, and others) will help the whole education and TVET system to plan better for the future, and will lead to a comprehensive result, and everyone in all sides will be a winner.

Regards,

SkillsforEmployment

As we begin to close our discussion on “Providing the right skills at the right time” we just want to remind participants about some of the topics covered which included: a look at existing skills development systems with a view to improving the system’s responsiveness to labour market demands; ways to strengthen skills systems to avoid skills mismatches that contribute to unemployment; industry-led/employer led approaches to sectoral skills development, highlighting the ILO’s quality apprenticeship programme as an example; the role of industry skills councils in anticipating the needs of a sector for current and future skills training; and, good practice examples of forward-looking strategies for developing skills in a particular sector that will improve the performance of enterprises and keep the skills of workers up-to-date, focusing attention on the ILO’s Skills for Trade and Economic Diversification (STED) methodology.

Current demographics trends bring 40 million people to the labour market each year, meaning that between now and the year 2030 the world economy needs to create over 600 million new jobs, (Source: Report of the ILO’s Director-General: The future of work centenary initiative, http://www.iло.org/wcmsp5/grou... )

Global dialogues such as these provide an important platform to review and examine together studies and data available as well as share new analyses and innovative skills initiatives that help facilitate knowledge and experience to meet jobs and skills demands for the future. We hope that you will continue to contribute to our next global conversation and help to shape the current thinking, agenda and strategies for skills development for meeting future skills needs.

For more information about the ILO’s Future of Work Century Initiative (video link):
Dear Colleagues,

Sorry for joining the discussion at this late stage. Last week, ILO co-hosted a Skills/TVET Forum (jointly with Government of Korea) titled “Jobs, Skills and Strategies for the Future: Perspectives from Asia-Pacific”. The sector-approach to skills was one of the main themes that the Forum addressed.

While the importance of engaging industry in skills development is widely recognized, the level of actual engagement of industry is still low, or at least at the early stage of development, in many parts of Asia and the Pacific region. Industry skills bodies, such as sector skills councils and industry skills councils, are increasingly seen as effective mechanisms to engage industry. The presentations and panel discussions at the Forum shared the experiences and/or perspectives from Australia, India, Bangladesh, Cambodia and Indonesia. In general, the panelists expressed a positive view towards this type of institutional mechanism (e.g. SSCs) and felt that it has contributed to enabling industry to gain experience, provide a place to voice their demands and become a significant player in the skills system. However, they also felt that the sustainability of such an institutional structure remains an issue. Financing was highlighted as another major issue for some developing countries, where investing in skills is still seen as an additional cost. Such an institutional mechanism tends to be heavily, in some cases entirely, financed by the government. This may be needed initially as an incentive for engaging industry, however, skills development of the workforce should be a joint investment by the public and private sectors and a gradual shift towards cost-sharing is necessary. Australia shared, for example, its recent shift from institutional-based to proposal-based funding. In the same session, Malaysia shared the experience of its levy-based Human Resource Development Fund as a mechanism for facilitating greater industry engagement in skills development.

Akiko Sakamoto and Amy Torres, ILO Skills Specialist, Asia-Pacific

As we come up to the end of the e-discussion, I want to share a little on the ILO’s Skills for Trade and Economic Diversification programme. The programme supports member countries in identifying and anticipating the skills that they most need to enable the future success of economically important tradable sectors, with a view to increasing decent employment through successful participation in trade.

When the programme first started, we focused chiefly on analysis. As it has developed, the emphasis on working closely with national and sector partners, and on developing their capacity to do this work themselves, has increased. The programme also now aims to support partners in
implementation, through a combination of work under the programme, through work by national and sector partners themselves, and through partnering with other ILO programmes and with other development partners.

So far, the STED programme has worked in a total of eleven countries, in a total of nineteen sectors. Cocoy and Naomy have just introduced the work done in Malawi, Cambodia and Myanmar. More information is available here: http://www.skillsforemployment...

Cocoy Sardaña  *  4 days ago
I'd like to share here some ongoing experiences under the ILO's STED (Skills for Trade and Economic Diversification) Project in Cambodia and Myanmar, which is being implemented with SIDA support.

Cambodia has adopted the National Employment Policy (NEP) 2015-2025, which recognizes that investing in skills development is necessary to diversify the economic base and produce high-value outputs. Under the NEP, one of the strategies is the development of sector-based approaches in education and TVET for higher-level skills in priority sectors. In line with the NEP, ILO is working closely with the Directorate General of Technical Vocational Education and Training (DGTVET) and the National Employment Agency (NEA) in implementing a STED approach in two sectors - light manufacturing and food processing, both of which are among the priority export sectors identified under the Cambodia Trade Integration Strategy (CTIS) 2014-2018.

Assessments of the two sectors using the STED methodology in early 2016 indicate a positive outlook among firms in both sectors. However, the studies also informed that skills shortages reflected in recruitment difficulties and skills gaps among existing workers are among the main challenges of light manufacturing and food processing firms, including exporters. To support the economic development of the light manufacturing and food processing sectors, DGTVET is now leading the development of competency standards for priority occupations under the STED project. Technical working groups made up of industry specialists from companies, workers, and technical institutes are being involved in the competency standards development process.

In Myanmar, the STED Project is contributing to the development of the Tourism HRD Strategic Action Plan with the incorporation of specific strategies on tourist guides. Acting on a recommendation from the STED assessment of the tourist guides in Myanmar, the Ministry of Hotels and Tourism (MOHT) and the National Skills Standards Authority (NSSA) are collaborating with ILO support in the development of competency standards for tourist guides. The MOHT is engaging Industry stakeholders, including associations of tour guides and tour operators, in the review of the proposed competency standards which will be aligned with international standards, particularly of ASEAN, to support the bid of Myanmar for a bigger share of the international tourism market.

Con Gregg  Cocoy Sardaña  *  3 days ago
Just to add to Cocoy’s description of the STED work in Cambodia, shortages of mid-level skills form a constraint on the ability of Cambodia’s exporting economy to diversify, and on the ability of its exporting sectors to move into higher value-added activities. The work on competency standards, undertaken in collaboration with national and sector partners, is targeted on improving the ability of Cambodia’s TVET providers to supply more skills of suitable quality in mid-level occupations identified by the analysis as being of high priority to targeted exporting sectors.

Dear colleagues,

Let me share with you a link to a short write up on the launch of the Work integrated Learning pilot in Malawi.

http://www.ilo.org/addisababa/...

This value chain based Work Integrated Learning pilot which is a response to the findings of the STED analysis undertaken in 2016, has proved quite popular among employers who have been hosting the learners, while the Ministry of Labour has been coordinating the learners’ participation. We have, however, struggled to establish how to effectively involve the workers’ organization in this intervention. After various tripartite discussions, however, the stakeholders agreed that the Union should undertake an assessment of the outcomes of the work integrated learning approach, particularly to establish to what extent the approach helps to improve the employability and occupational mobility of workers. We anticipate that the results of the assessment will help to improve the approach as we plan for the institutionalization into the main stream TVET system.

Naomy

I would now like to focus our attention on the remaining questions for this week’s discussion. I kindly invite you to share with us your views and experiences on the following:

- What are some effective examples of forward-looking strategies for developing skills in a particular sector that will improve the performance of enterprises and keep the skills of workers up-to-date?

- To what extent are countries considering the specific needs of their key sectors when developing national level skills development policies/TVET strategies?
And finally, I would like share with you a new video featuring ILO Skills Specialist Olga Striecka-Ilna who provides a response to what is skills needs anticipation, and also shares good practice examples of ILO work at the sectoral level in Viet Nam and Cambodia. This work is done under the framework of the ILO’s Skills for Trade and Economic Diversification (STED) programme which provides a platform for partnerships for anticipating and responding to the skills needs in tradable sectors of developing countries. For case stories, view the portion of the video starting from 12:15 to 14:23. Link to video:

Looking forward to hearing from you all,
Regards,
Bolormaa

Bolormaa Tumurchudur Klok * 5 days ago
Dear All,
As a further contribution to the question raised on sectoral skills development approaches that have proven useful in engaging employers, I would like to highlight the ILO’s programme on quality apprenticeship. Under this model, employers articulate their skills needs and identify skills mismatches in selected sectors with job creation potential. Next, the ILO starts working with employers and representatives of trade unions and government. The employers are in the driver’s seat, however, during the entire consultation process. The result is a quality apprenticeship scheme that directly addresses the skills that employers need, while growing a committed, engaged workforce and opening up pathways for new talent into their organizations, occupations and sectors. For more information on quality apprenticeships:

Why demand-driven apprenticeships make sense in increasing the employment prospects of young people and in closing skills gaps, http://www.skillsforemployment...
Feasibility study for a global business network on apprenticeship, http://www.skillsforemployment...
Overview of apprenticeship systems and issues, http://www.skillsforemployment...
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Looking forward to hearing from you all,
Regards,
Bolormaa

SkillsforEmployment
The following contribution was received from T. Damian Boyle:

Colleagues,

My observations from being involved with the development and piloting of the Youth Apprenticeship Program in Alberta, around 2003 -2005, is that the greatest problems arose when “Teachers” with no trades apprenticeship experience themselves were put in charge in the K-12 schools.

As an outcome of this experience, my dinosaur brain still believes that administrators at all levels MUST have substantial experience in the field in order to be effective at cultivating growth and improvements in the workforce and the industry.

I am a strong believer in the Apprenticeship Model, for any occupation. I have posted some links relating to this at: https://edunorth.wordpress.com...

For the purposes of developing “Teachers” who are incompetent in TVET in a quick, easy, and inexpensive way, I have proposed this approach: https://edunorth.wordpress.com...

Below are some links for those interested in fostering Industry or Sector Councils.

Sector Council Information for Employers
http://www.workforceinnovation...oration%20for%20Employers.pdf

List of International Sector Skill Councils
http://www.sscnasscom.com/ssc...

Sector Councils in Canada
http://www.newcomersuccess.ca/...

Association of Industry Sector Councils (Canada) http://www.aisc.ca/
Sector Initiatives Fund (Canada) https://www.ic.gc.ca/eic/site/...
Sector Councils & Industry Associations (Manitoba) http://www.gov.mb.ca/wd/ites/i...
Mining Industry Human Resources Council https://www.mihr.ca/
Thank you very much for the interesting contribution!

All the information, especially about Sector Skills Councils, is very useful and relevant to the discussion.

Regards,

Bolormaa

The following contribution was received from Joseph Hegarty:

Hi All ,

This is an interesting discussion, and one I've been involved in for twenty years when I first became involved in evaluating the Professional Cookery Apprenticeship Courses at my school, and developed a perspective along the following lines.

In the traditional craft-based, apprentice vocational training in professional cookery, the emphasis has traditionally been on instrumental task- (or task-element) performance, with heavy reliance on behavioural or instructional objectives delivered in a didactic form to demonstrate unspecified competence(s).

Amongst the most persistent critics of the competence approach are Gleeson and Hodkinson (1999), Bates (1995, 1999) and Hyland (1994). Gleeson and Hodkinson (1999, p. 158) following a review of numerous studies, point out that such education and training lags behind equivalent systems in most developed countries, and that there is a consensus that vocational training provision has not worked, either for a majority of young school leavers, or in meeting the perceived needs for a better workforce. Bates (1999, p. 112) criticises competence-based education on the grounds that it runs counter to the “spirit of education”. She emphasises the importance of the individual in the construction of meanings, and the need for education to treat learning as a creative process in which the outcomes are, to some extent, unpredictable. Hyland (1994, p. 235) argues that competence-based education atomises and fragments learning into measurable chunks, rather than a valuing process and experience. It is concerned only with performance outcomes, and most importantly, instead of encouraging critical reflection on alternative perspectives, it offers a mono-cultural view based on the satisfaction of narrow
performance criteria directed towards fixed and predetermined ends. In professional cookery, the competence-based curriculum has come to be regarded as mechanistic and reductionist, and unlikely to foster the fullest possible potential of human development. For an undergraduate curriculum in professional cookery, the emphasis needs to be placed on recognising and fostering the intellectual development of the students.

Slán go foillín,

Joseph

Inaugural Fellow Dublin Gastronomy Symposium 2016
International Consultant in Culinary & Hospitality Education,
Research Coaching Consultant

T. Damian Boyle  SkillsforEmployment + 6 days ago
Colleagues,

My own situation may serve as a useful example for the present topics.

The Workplace Education Program has evolved from the Surface Lease Agreement and the Human Resource Development Agreement requirements legally articulated between the Government of Saskatchewan and a Mining Company. I provide support to the Mining Company with the development and delivery of education and training materials, and support to Workers with the development of the knowledge and skills requisite for their present jobs as well as for career development interests. Funding for this program has come from the taxpayers of Saskatchewan, the Mining Company, and the Mineral Resources Sector Council. The program operates only at the Mine Site, which is the campus. More information about this situation is posted at:

Workplace Education (EduNorth)
https://edunorth.wordpress.com...

To answer the question about forward looking strategies, I will point to some materials and recommendations that I have generated for exactly this purpose:

Training Mine Trainers with Experiential and Reflective Learning Practices
https://www.academia.edu/80924...

An Ancient Approach to Managing Intellectual Capital: "Know Thy Self"
https://www.academia.edu/92048...

Point of View Technology for Technical & Vocational Education & Training
https://www.academia.edu/14955...

Special Thanks today to Joseph Hegarty for his comments on this topic. Joseph spoke about tacit and wholistic learnings and synthetic understandings, which cannot be acquired without deep experiences and reflections. Maslow said that a good soup has
more art in it than a mediocre painting. Those who have not developed their craft to the level of art cannot understand the experience, and so are actually unqualified to comment upon that aspect of experience. I wonder: were Gleeson, Hodkinson & Hyland truly well informed in their criticism?

As a graduate of the first cohort of Competency Based Apprenticeship Training done in Alberta (Carpentry, 1992), I am persuaded that this is a superior approach in terms of efficiency and effectiveness, for all concerned. Employable skills pay the bills. Reflection on the craft and the art happens according to my interests in that process, forever after the entry level skills have been acquired. “You can send a Worker to school, but you can’t make them think.” Expediency, in my judgement, dictates that skills be explicitly taught, and that reflections be tacitly encouraged. Beauty may be laid over utility, as time permits.

Yours,

Damian

Con

Gregg

T. Damian Boyle * 5 days ago

Dear Damian,

Thank you very much for your thoughtful contribution, and for the links both to EduNorth Workplace Education and to your three articles. I can foresee myself referencing the EduNorth model in future, and the articles make for useful reflection.

Con

Naomy Lintini

SkillsforEmployment * 6 days ago

Dear Joseph,

Thank you for this insight. As you have rightly pointed out " an undergraduate curriculum must indeed foster intellectual development of students". I also believe that this is important because practical performance in any skill is enhanced when undertaken from a position of knowledge. When workers or learners have a good understanding of the underpinning conceptual knowledge of the activities they are involved in, they are more likely to be innovative in the way they do and work. Of course, this does not necessarily mean that the other approaches are not useful. The level of basic education of the learners should ideally also be taken into consideration.
Con Gregg  SkillsforEmployment * 6 days ago
Dia dhuit a Ollamh Uí hÉigceartaigh,

Thank you very much for this interesting contribution. It is a little off to one side of our intended topic, but is a most important issue. A lack of proper reflection is certainly a potential hazard in the design competency-based frameworks for learning, and I am sure many of us have seen cases where programmes of learning have the flaws that you reference. Even so, I think the tendency is now for competency-based frameworks to build in elements of critical reflection, and to mainstream the development and demonstration of core work skills in areas like problem solving and communication. I think that in principle these aim to address the issues you mention. I would be very much interested in hearing your views as to how extensively these strategies have been applied in your field, and as to how successful they have been.

As you are focused specifically on professional cookery, I would be interested in any reflections you may have on the related topic of the emergence of higher education courses in culinary arts, how they interact with professional apprenticeships in cookery, and how their role in meeting the skills needs of restaurant and other hospitality sectors is differentiated from the role of apprenticeships.

All the best, Con

Moustafa Wahba  * 6 days ago
Dear All

Let me start by indicating my special thanks to all the contributors to this interesting E-discussion. Now I wish to highlight that the best model of employer engagement in sectoral skills development which I have identified during my long experience working in different sectors of industry including oil and gas industry is the application of both “Competency Based Education and Training CBET System” for Technical and Vocational Education and Training TVET as well as “Competency Assurance Management System CAMS” for Competency Based Workers / Trainees / Students Assessment and Verification.

The CBET is applied by the management of Enterprises and TVET Institutions with a view to effectively train their workers / trainees / students to achieve particular competencies (Awareness, Knowledge, Skills and Attitude / Behavior) via a Competency Based Approach.

The CAMS as an approach for Job Knowledge Assessment is applied by the management of an Enterprise or TVET Institution with a view to have reasonable assurance of meeting the
Enterprise / Oil & Gas Company / TVET Institution business objectives by assuring that their workers / trainees / students are well assessed, verified and certified as competent. The CAMS is a quality-assured structural process used to determine the qualification level (standard) of the workers / trainees and students belonging to different Enterprises, Oil & Gas Companies and TVET Institutions as well as giving them recognition of the attainment of particular competencies (Awareness, Knowledge, Skills and Attitude / Behavior) according to their occupations / professions.

The corporate management of an Enterprise or TVET Institution has to clearly state the mission of their Competency Based Education and Training CBET System & Competency Assurance Management System CAMS and which are generally derived from the following Mission Statement:

The purpose of the Competency Based Education and Training CBET System & Competency Assurance Management System CAMS is to provide guidelines that will enable the management of Enterprises, Oil & Gas Companies and TVET Institutions to set valid and reliable controls in place with a view to have reasonable assurance that their workers / trainees / students are well trained, acquired the required awareness, knowledge, skill and attitude competencies, provided evidences, assessed, verified and certified to be competent to effectively perform all tasks assigned to them, including Health Safety and Environmental Protection HSEP (Occupational Health and Safety OHS) and Business Critical Tasks (known simply as Critical Tasks), up to the required Minimum Competency Level (Standard) at Work Location.

For full details of the above two essential Competency Based Training and Assessment Systems, you can contact me.

Eng. Moustafa Wahba
Competency Assurance & TVET Consultant
Scottish Qualification Authority SQA Qualified Internal Verifier

Nasyitah Nasir  Moustafa Wahba * 5 days ago
Dear Moustafa,

Thanks for your response, what do you think about dual VET system in Germany? Does it works to decrease the competency gaps among instructors?

Moustafa Wahba  Nasyitah Nasir * 5 days ago
Dear Nasyitah
The dual VET system is an integral part of the general education and training
system in Germany. There are six different “levels of teaching certification” and accordingly there is no such thing as “a German system” of teacher training. The project “Monitor Lehrer-bildung” closes this gap and presents an overview over the dissimilar structure elements.

Dear Moustafa, thank you for your contribution again. I think you, once again, reinforce the widely-held understanding that competency-based frameworks for skills, designed based on industry needs, have an important role to play in the provision of high quality relevant training. I think oil and gas is one of the sectors in which competency assurance is a high stakes issue for enterprises, and provides an interesting case study.

All the best, Con

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Dear Moustafa,

These are very interesting approaches for employer engagement. What do you think the role of worker organizations would be in such engagement modalities?

Naomy

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Dear Naomy

As I stated, the main role of Organizations, Enterprises or TVET Institutions is to clearly state the mission of their Competency Based Education and Training CBET System & Competency Assurance Management System CAMS and which are generally derived from the following Mission Statement:

The purpose of the Competency Based Education and Training CBET System & Competency Assurance Management System CAMS is to provide guidelines that will enable the management of Organizations, Enterprises and TVET Institutions to set valid and reliable controls in place with a view to have reasonable assurance that their workers / trainees / students are well trained, acquired the required awareness, knowledge, skill and attitude competencies, provided evidences, assessed, verified and certified to be competent to effectively perform all tasks assigned to them, including Health Safety and
Bonjour tous, je crois que l'approche sectorielle mérite être discutée dans tous les pays, voir les points forts/faibles afin de voir toutes les implications. Surtout la participation active des acteurs sociaux comme les employeurs et les syndicats des travailleurs permettrait de répondre à la demande (plutôt que l'offre) en ETFP. Souvent on me dit que la taille du pays permet oui/non une approche sectorielle. Personnellement je crois que cette approche est valable pour tous les pays. Avoir une taxe/prélèvement/subsides/... par secteur en appui à l'ETFP par ces acteurs sociaux obligerait à obtenir des résultats réels. Quid pro quo. Davantage si ces acteurs sociaux soient vraiment en charge des fonds disponibles au bénéfice de l'ETFP. Ou commencer ? Par des secteurs porteurs comme le secteur minière, tourisme... Exemple à étudier, le système S au Brésil .....approche sectorielle.

Hello to everyone. I believe sectoral approaches deserves to be discussed in all countries, observe the strengths / weaknesses in order to see all the implications. In particular, the active participation of social partners such as employers’ and workers' organizations will allow us to meet the demand for skills (rather than the supply) in TVET. I am often told that the country's size determines a yes / no decision for the implementation of a sectoral approach. However, I personally believe that this type of approach to skills development is valid for all countries. In addition, having a tax / levy / subsidy / .... by sector to support TVET is required to achieve real results. Quid pro quo. More if these social actors were to really be in charge of the funds available for the benefit of TVET. Where to start? On key sectors such as the mining sector, tourism ... An example of this is the “S system” in Brazil - sectoral approach.
means that the competencies developed through sectoral approaches address their specific needs.

Many sectors can benefit from sector based skills development approaches. In Malawi for example, the ILO is implementing a value chain based skills development programme for the horticulture sector. Both the design and implementation of the programme is being undertaken with the active participation of the Employer’s Consultative Association of Malawi who were instrumental in mobilizing the private sector companies to offer work based training for the learners.

Can you please say a bit more about the "S system" sectoral approach in Brazil?

Bolormaa Tumurchudur Klok  
SkillsforEmployment * 7 days ago

Dear Alexis,

Thank you very much for sharing your view on the importance of sectoral approaches to skills development, especially for raising the issue of the active participation of social partners such as employers and workers’ organizations as a key success factor in meeting skills demand.

Where to start? The ILO’s Skills for Trade and Economic Diversification (STED) Programme focuses on anticipating and responds to the skills needs of tradable sectors in developing countries. The STED methodology is designed to support growth and decent employment creation in sectors that have the potential to increase exports and to contribute to economic diversification. The underlying logic is that successful participation in trade is a key driver of development that can have big benefits for developing countries in terms of raising productivity and incomes, strengthening enterprise, and providing better employment opportunities both for women and for men. The potential benefits are not limited to exporting sectors. They can extend to sectors that supply them with goods and services too, like for example with agriculture getting access to export markets through food processing enterprises. The benefits can also extend to the wider economy, as people working in exporting sectors spend their earnings, and as technologies and working practices adopted by exporting businesses diffuse into the domestic economy too.

The ILO’s STED programme provides a framework for partnerships with labour ministries, trade ministries, national statistics offices, Technical and Vocational Education and Training (TVET) institutions, employers’ organizations and trade unions, and sector professional organizations to bring their individual perspectives and information together in order to integrate skills development in trade policy and to anticipate and prepare for emerging skill needs. Regards,

Bolormaa
Filipe Cassapo

Hello everybody. My name is Filipe Cassapo, and I am a manager at the Federation of Industries of the state of Paraná, in Brazil. I will be glad to contribute to discussion and share some experiences on how we have been driving industry-oriented skill development, and future-skill-needs-oriented strategies. Of course there is a lot to be said about the so-called Brazilian "S" System, but to the start with, and would like to invite you to read this quick introduction on the activities of our Industry Strategic Observatory, which main activites consist exactly on deepening the understanding of the present and future needs of our regional industries, in terms of skilled-people and Technologies, so that proper TVET strategy development can be put into place: http://www.fiepr.org.br/observ.... Sorry this material is in portuguese... I hope google translator may help. I will anyway get more material in English (or french if needed), and post them in the fórum. Hope to hear from you!

SkillsforEmployment

Caro Filipe

Muito obrigada por partilhar connosco a experiência dos Observatórios Sistema Fiep, que consideramos essenciais para antecipar as necessidades de competências estratégicas para o desenvolvimento de vários sectores da atividade económica e de áreas técnicas e tecnológicas inovadoras. Existem efetivamente vários sistemas de observação em todo o mundo, mas a vossa experiência é particularmente interessante porque agregam um conjunto muito significativo de parceiros nacionais públicos e privados mas também internacionais, para formulação de estratégias compartilhadas com representantes de diferentes setores na busca de soluções que atendam aos interesses coletivos da sociedade. Apreciamos também o forte envolvimento dos parceiros sociais nos vosso estudos de reflexão estratégica, bem como blogs por sector de atividade económica.

Encorajamo-lo a partilhar neste fórum material em inglês sobre a metodologia de Reflexão Estratégica que utilizam ou sobre alguns resultados dos estudos prospetivos sectoriais que lhe pareçam mais relevantes para disseminação.”
Unofficial translation

Dear Filipe,

Thank you for sharing with us the experiences of Observatories Fiep System, which we consider essential in anticipating the needs of strategic competencies for the development of various sectors of the economy and innovative techniques and technology. There are actually several observation systems around the world, however, your experience is particularly interesting because it adds a significant group of partners, not only at the national level, public and private, but also at the international level, for the formulation of shared strategies from different sectors, in the search of solutions that meet the collective interests of society. In addition, we appreciate the strong involvement of the social partners in your studies of strategic thinking as well as the blogs by sectors of economic activity.

We encourage you to share through this forum material in English on the methodology of Strategic Reflection using or about the results of sectoral prospective studies it deems most relevant for dissemination.”

Bolormaa Tumurchudur Klok
Filipe Cassapo * 5 days ago

Dear Filipe Cassapo,

Thank you very much for joining our E-discussion! Looking forward to hearing your experiences on how you have been driving industry oriented skills development and future skills needs strategies in your region in Brazil! It would be great if you could share with us some materials in English (or French) on the Brazilian “S” System.

Many thanks again,
Regards Bolormaa

Filipe Cassapo
Bolormaa Tumurchudur Klok * 3 days ago

Hello everybody. Thank you all for your feedback. As mentioned before, we would please like to share further information in English on the strategic professional skills development approach developed by our Observatory, now in English. I will be glad to deepen the aspects of this methodology
that are more important and interesting to you. Please find this information at https://we.tl/lqUq2WA5p7

Bolormaa Tumurchudur Klok * 7 days ago

Good morning,

Welcome to the second week of our E-discussion on the role of sectoral skills development in contributing to productive and competitive economies! Thank you all for your excellent contributions and participation in the E-discussion during last week. Naomy and I, we will be moderating the discussions and would like to focus more on practical and good practice interventions of sectoral skills development approaches. During the first half of the week, we would like to hear your views on the following questions:

1. Sectoral skills development approaches have proven useful in engaging employers, albeit they take different forms within different national contexts. What models of employer engagement have you identified as being effective when examining approaches to sectoral skills development?

2. What role can tripartite sectoral skills councils play in anticipating the needs of a sector for current and future skills training, assessing the quality and relevance of training programmes and improving relevance?

We invite you all to share your views and experiences on implementing sectoral skills development approaches!

Regards, Bolormaa

Moustafa Wahba

Dear Bolormaa

I have explained in brief the role of applying both “Competency Based Education and Training CBET System” for Technical and Vocational Education and Training (TVET) as well as “Competency Assurance Management System (CAMS)” for Competency Based Workers / Trainees / Students Assessment and Verification. This, in my moderate point of view, is the best model of employer engagement in sectoral skills development.

By applying the above two essential Competency Based Training and Assessment Systems, any tripartite sectoral skills council can play a strong role in anticipating the needs of a sector for current and future skills training, assessing the quality and relevance of training programmes and improving relevance.
The introduction of ‘quality management’ and ‘quality-related’ elements in TVET will ensure the following benefits to Society and Economy:

For Workers / Trainees / Students
1. Enough flexibility will be given to the Workers / Trainees to move from the TVET System and join another educational strand and the other way around
2. Standards are set and a minimum quality is guaranteed for every aspect of TVET
3. The workers / trainers benefit from sufficient theoretical and practical elements throughout the basic and on-the-job training
4. Learning programmes that meet their expectations as a result of their active involvement in the self-assessment process
5. Allow learners to enter gainful employment or pursue HE opportunities
6. Equal opportunities
7. Increase the capacity of employment and higher chances of employment for graduates
8. Good information about vocational educational and training offers
9. increased satisfaction of Workers / Trainers as beneficiaries

For Employers
1. Confidence in the quality of TVET and in the validity of the professional certificates
2. Enforcing the dependence of the TVET on the demand of the employers;
3. Adjusting the content of the training provision to the needs of the employers
4. increased satisfaction of Employers as beneficiaries

For TVET Institutions / Training Providers
1. Quality is being believable and trustworthy
2. Quality is monitored both at the TVET Institutions level and among the teaching and training staff
3. Curricula and Training Programmes are in line with the requirements of the labour market
4. Transparency of the TVET curriculum and programmes’ quality
5. Increasing TVET curriculum and programmes’ attractiveness
6. TVET Institutions / Providers interact closely with the world of work
7. Instructional and training staff are well-qualified, knowledgeable about the world of work, and available in sufficient numbers
8. Development of a culture of reflection and of continuous improvement for all staff members
9. improvement for all staff members
10. Delegating power, responsibility and greater autonomy to TVET Institutions / Providers
11. Greater public responsibility of TVET Institutions / Providers
12. Training Facilities correspond with latest requirements and technologies, are well-maintained and available in sufficient numbers
13. The training delivery methods allow for a maximum learning effect
14. Vocational counselling and guidance is available from the beginning of the learner’s training (the right choice of programme), during the training (learning matters, personal
problems, financial difficulties, etc.), and at the end of the training (finding employment)

15. Facilitation of inter institutional cooperation and distribution of good practice and experiences of success between TVET Institutions and Providers

For Governments / Community
1. Better coordination among the Ministries involved with TVET, because responsibilities for TVET are often split between Ministries of Trade and Industry, Ministry of Education and Ministry of Labour
2. Responsibility of TVET Institutions and Providers as key element in TVET quality assurance
3. Supporting the Decentralization process in TVET

Best regards
Eng. Moustafa Wahba
Competency Assurance & TVET Consultant
Scottish Qualification Authority SQA Qualified Internal Verifier

Bolormaa Tumurchudur Klok  Moustafa Wahba * 6 days ago
Dear Moustafa Wahba,
Thank you very much for covering comprehensively key benefits of applying both Competency Based Training and Assessment Systems in employer engagement in sectoral skills development. Regards, Bolormaa

Hari Pada Das * 10 days ago
Supply driven systems do not satisfy the demand of the labour market. We recently piloted a demand driven system and it has started growing. But we are facing challenges, particularly in industry engagement in training development and few stages in training delivery, technical upskilling of teachers/trainers to deliver industry driven competencies, upgrading the labs of the TVET institutions with require equipment and teacher training to deliver the competencies.

As HRDF is not yet established in Bangladesh, engaging industry in skills development is another challenge.

Mr. Mustafa Wahaba has mentioned about the requirement of strong commitment from all levels. But our understanding is that it takes time.

In Bangladesh, there are 22 ministries engaged in skills development training. Another challenge is the coordination among all the ministries engaged in skills development to adopt the new industry driven system.

Colleagues, will appreciate your experience in CBT implementation.
Rgds.

Bolormaa Tumurchudur Klok  

Dear Hari Pada Das,

Thank you very much for drawing our attention to the challenges that you are facing in your recent piloting of a demand driven system in Bangladesh. You are right to point out the importance of coordination among different ministries engaged in skills development.

At the ILO we often discuss with our constituents sectoral skills councils as a way to have a clear set of stakeholders that can come together at the sector level to spearhead demand-led sector skills needs. Having Industry Skills Councils established in Bangladesh, could you share with us your experiences and any important lessons in dealing with coordination issues that might be useful for other countries aiming to develop industry/sectoral skills councils themselves?

Hari Pada Das  

Dear Bolormaa and All,

Thanks. I am sharing our experience of demand driven curriculum development through Industry Skills Council (ISCs).

Formation of Industry Skills Council (ISC) was very challenging for Bangladesh. In last 6-7 years we were able to form 12 ISC’s and those were (1) Agro-food Sector, (2) Information Technology (IT), (3) Leather and Leather Goods, (4) Tourism and Hospitality, (5) Transport (Ship Building), (6) Light Engineering, (7) Ready Made Garments (RMG), (8) Ceramic, (9) Pharmaceuticals, (10) Informal economy, (11) Construction, (12) Furniture making.

ISC’s were formed on the basis of several study reports indicating skills demand for the priority industry sectors of the country’s economy. Formation was very challenging as every business has its sectoral competition. It was not very easy to gather the sector leader together. However, Bangladesh Employers Federation (BEF) and Federation of Bangladesh Chambers of Commerce and Industry (FBCCI) the apex industry bodies helped the formation of ISC’s.

ISC leaders identified the priority occupations in demand for skill development of their sectors. ISC leaders along with the central body of Curriculum Development (BTEB) formed a Standard and Curriculum Development
Committee (SCDC) for each of the occupations. Industry experts for the specific occupations were nominated in the each SCDC by the ISC leaders.

Each SCDC identified the core competencies for the occupations, Sectoral competencies, competencies for necessary literacy and numeracy, necessary communication skills and Occupational Safety and Health (OSH). Curriculum experts along with the SCDC members package the competencies as per the skill levels. Competencies were piloted in few selected TVET institutions and Industry was involved in the overseeing the training programme and in assessment by Industry Assessors (3rd party assessment) at the end of the course. Each of the pilot institutes formed a advisory committee involving industry.

ISC helped those students for their industry attachment, which is a compulsory requirement for each level of the course. Competent graduates were recruited by the industry immediately after completion of the course.

ISCs are the best source who can provide information about the need of the sector. We conducted two "Demand and Supply of skills" surveys for few sectors through ISCs.

Challenge is to keep the ISC operational.

Dear Hari Pada Das,

Thank you very much for sharing your experience of the formation of 12 Industry Skills Councils (ISCs) in Bangladesh and their process of demand driven curriculum development. As you have pointed out, a key challenge is keeping the ISCs operational. It would be extremely interesting if you could share what are your priorities in mainstreaming the ISCs’ activities?

Dear Bolormaa,

As mentioned earlier, ISC’s engagement in industry driven skills development are to (i) Identify the skills demand for the sector, (ii) Select the priority occupations for training, (iii) Identify the competency standards (CS) for the selected occupations, (iv) Support BTEB (regulatory body) for packaging the
competencies as training courses, (v) Engage in the advisory committee at the institute level to oversee and confirm the quality of training delivery, (vi) Participate in assessment of the trainees, (vii) Support industry attachment programme for the trainees, and (viii) Support organisation of apprenticeship training/industry training programme.

In Bangladesh ISCs have just started growing. Till today ISCs are providing support voluntarily or supported by different projects. For the sustainability, a funding mechanism for the ISCs are under discussion. The Government through the National Skills Development Council (NSDC) Secretariat is trying to develop a funding model for the ISC. To receive any Govt. funding a formal registration is required. Currently, ISC registration process is in progress. Few DP (Development Partners) projects are supporting a few ISCs as of their own priority through some service contract. Govt. is also willing to support ISCs and work towards devising a policy to support ISCs. Looking for a mechanism. Others experiences for funding ISC would be helpful.

Dear Hari Pada Das,
Thank you very much for the additional information on the ISCs in Bangladesh! Industry Skills Councils need a good funding mechanism to be sustainable. More information on funding mechanisms can be found here: http://www.skillsforemployment...
Kind regards,
Bolormaa

Bolormaa Tumurchudur Klok
Hari Pada Das * 3 days ago

We have reached the end of the first week of the e-discussion, and have covered some very interesting ground. A big thanks to all those who have contributed so far.

Before we wrap up for the week, I want to say a few words about the publications linked at the top right of this page.
- I have already mentioned the “Working at Sectoral Level” Guide. Covering the wide variety in sectoral approaches to skills globally, this publication is intended for all concerned with skills
anticipation and matching, both as an introduction to technical work in the area, and as a source for policy-makers, employers, workers’ representatives, providers of education and training, and others concerned with anticipation and matching of skills.

- The “G20 Training Strategy” was prepared by the ILO on behalf of the Development Working Group of the G20. It provides important guidance on training strategies, emphasising the importance of sectoral approaches and skills anticipation as being among the important building blocks for strong training and skills development systems.

- “Skills for Trade and Economic Diversification – A Practical Guide” is the technical guide for the ILO’s STED Programme. Under the Programme, we work with national and sector partners in developing countries to identify and anticipate the skills needed for strategically important tradable sectors to succeed into the future, and to implement the findings. The Guide is aimed both at people doing technical work on skills anticipation and at national and sector level partners involved in sectoral skills anticipation processes.

Cocoy and I are taking off our moderating hats now, to hand them over to Bolormaa Tumurchudur (ILO Geneva) and Naomy Lintini (ILO Lusaka). The e-discussion questions for the first half of next week will be:

5. Sectoral skills development approaches have proven useful in engaging employers, albeit they take different forms within different national contexts. What models of employer engagement have you identified as being effective when examining approaches to sectoral skills development?

6. What role can tripartite sectoral skills councils play in anticipating the needs of a sector for current and future skills training, assessing the quality and relevance of training programmes and improving relevance?

Hoping to see you back next week to address these important questions.

Bon weekend. Con

Joseph David Magee  * 10 days ago

Given the unacceptably high levels of death, injuries and losses which occur to young people who newly enter into employment and training, especially within their first six months, there are obviously challenges for teachers, instructors and trainers in equipping new entrants to the labour market with the relevant occupational safety and health (OSH) literacy skills needed to safely transition from education to employment and training.

OSH comprises its own unique set of signs, symbols, colour-codes and meta-language. This literacy can become even more specialised depending on the industry sector. Therefore, OSH literacy fits all the criteria to be regarded as a specialist or discrete literacy in its own right along with other recognised special literacies such as: I.T; finance and health.

Schools put great time and effort into preparing young people for adult life and in teaching these other discrete literacies. However, through my research I have found that there is no recognition of OSH literacy as a specialised literacy in its own right. English is the lingua-franca of the global workplace and also of international OSH. Many TVET colleges, especially in the middle-east, but
also in Europe and Asia have foundation training programmes which are designed to give learners the requisite levels of English language, literacy and work-related learning skills needed to successfully undertake an internationally focused programme of vocational study. However, most of these vocational programmes start at Level 1. Most school and English language teachers have very little, if any, experience in teaching the subject of OSH. Conversely, most vocational and technical instructors have not had the training to identify and differentiate learning materials for persons who may have lower levels of language, literacy and learning ability.

Usually OSH is taught as an embedded subject. Most international vocational courses start at Level 1 and require a person to have a corresponding level of English (B1/intermediate/upper-intermediate). This is also the case for most induction training booklets and safety instructions. Although there is legislation which requires employers to give information at a suitable level, unfortunately there are ways to get around this which are exploited. For instance, self-conscious young people, people with special needs or those desperate for employment are very often given a brief safety talk on their first day and handed a piece of paper to sign which states that they have had, and clearly understood, their safety training. The vast majority do sign in-case they are thought of as stupid or in fear of losing their jobs. Thus taking liability away from employers. As the statistics show, this has disastrous consequences.

Therefore, there needs to be a recognition that OSH literacy is an important work and life functional literacy skill. Teachers need to be taught how to teach it as part of their teacher training and there needs to be initial assessments available to identify persons who may not have sufficient levels and easy-to-deliver resources need to be made available. The education to employment eco-system is closely inter-connected. The Québec City Protocol, the Berlin Declaration, and the Lisbon Charter are all inter-governmental pledges to share and promote best practices in health and safety education and training. They highlight a system that focuses on education about health and safety and prevention from an early age, making training related to occupational health and safety readily available and accessible, and by providing on-going support and coaching for young adults in their first jobs. All stakeholders have a duty-of-care to ensure that young people have the requisite levels of OSH literacy prior to them encountering it for the first time in work or training. Having it recognised as a key literacy will enable teachers to teach it as such and will make it more likely to be easily incorporated into mainstream curriculums. For more information on this subject visit www.oshliteracy.org.

David Magee, OSH Literacy.org

Con Gregg Joseph David Magee * 9 days ago

Dear Joseph David,

Thank you for this important post. I think you are right that OSH often does not get enough attention in education. There are some countries where it is encompassed explicitly by concepts of core skills, and perhaps there should be more: http://www.ilo.org/global/docs...

International Labour Standards relating to OSH can be found here: http://www.ilo.org/global/stand.... Links to sectoral information can be found here: http://www.ilo.org/safework/in...
The ILO provides a significant amount of technical assistance in OSH. Two of the ILO's five flagship programmes, the Global Action for Prevention on Occupational Safety and Health (GAP-OSH) and Better Work are directly connected to it, and there are elements of OSH across many ILO technical assistance projects, including skills projects.

Joseph David Magee  Con Gregg * 9 days ago

Hello Con, Thanks for the reply and interesting links. I am aware that OSH is taught as a 'core skill' embedded in other programmes and I think that this can be improved upon. In the context of this discussion and the questions posed - having OSH recognised and taught as a key literacy would enable it to be easily taught in schools. One of the big challenges is the total lack of teachers with experience in OSH. Another is the availability of good resources at entry level. Most teachers come from an academic background. Therefore when being taught, it is difficult to put it into context and for learners to conceptualise it. However, if it were recognised and taught as a 'stand-alone' key literacy or language, it would make it a lot easier to teach and incorporate into national curriculums. Prior to encountering the subject of OSH in 'real life' learners would have the basic OSH literacy skills to be able to engage with it. OSH literacy is a work/life literacy and can be found on electrical appliances, on the side of household cleaning products and in numerous other everyday instances. As things stand, when most people encounter this new language for the first time, especially if they are not native English speakers, it may as well be in Greek if they do not have the basics of this new literacy. It is a real challenge to tackle this issue. According to the ILO's own research: An estimated 2.3 million people die every year from [recorded] work-related accidents and diseases [three times the annual, global number of people who die from suicide, twice the number of people killed in road traffic accidents and more than the total number of deaths from Malaria and HIV combined!] More than 160 million people suffer from [recorded] occupational and work-related diseases, and there are 313 million [recorded] non-fatal accidents per year. The suffering caused by such accidents and illnesses to workers and their families is incalculable. In economic terms, the ILO has estimated that more than 4% of the world’s annual GDP is lost as a consequence of occupational accidents and diseases.’

(http://ilo.org/global/topics/s.... Some research shows that persons within their first six months of employment and training account for over 50% of the above statistics.

Recently, Mark Zuckerberg (the founder of Facebook) became the latest in a long line of multi-billionaires who have pledged their billions to reduce or eradicate the number of deaths caused by conventional diseases. I believe, that for all stakeholders involved with OSH and vocational education, that there is no greater challenge than to reduce these statistics and I also think that
recognising and teaching OSH literacy as a key life-skill functional literacy and giving young people the basic OSH literacy skills needed engage in training and communications and to make informed choices regarding safety at work, prior to them encountering it for the first time would be a good and easy place to start. Yours, Dave Magee

The following contribution was received from Samuel Thompson, COTVET/Ghana

Hello Jeannette,

Ensuring the optimum quality of training delivery in relation to technology is a task that cannot be underestimated. To achieve this, a lot of effort and commitment is required by government and all the other relevant stakeholders. It is this commitment that will influence the necessary resource allocation to the institutions, organizations and agencies that require it to enable them drive the process. This process requires putting in place the appropriate structures, mechanisms and personnel that will make imparting quality skills training effective and efficient. Governments, will always be constrained with resources, but will always have priority areas. So quality skills training, as considered as a critical to the development of the economy and recognized as a priority area or concern, then the issue of resources will be taken care of. The rewards and motivation for those responsible for quality assurance in skills training when packaged well, will also be very useful.

Thompson
COTVET
Ghana

Thank you very much for your useful contribution. One point to build on what you say. In our experience, inter-ministerial collaboration between ministries responsible for skills and education, and those responsible for economic and trade development, is helpful to allocating resources so as to respond to economically important skills needs.
Comment posted via Twitter in response to question on challenges faced by teachers and trainers in equipping new entrants to the labour market with the relevant skills:

Noreen
Our teachers and trainers are ill trained to deliver relevant and quality skills to their students.

SkillsforEmployment @GlobalKSP
What particular challenges do teachers & trainers face in equipping new entrants to the labour market with the relevant skills? #TeachersDay

SkillsforEmployment @GlobalKSP
Comments posted via Twitter in response to question on challenges faced by teachers and trainers in equipping new entrants to the labour market with the relevant skills:

albert
Inadequate support on relevant methodologies and poor working conditions

SkillsforEmployment @GlobalKSP
What particular challenges do teachers & trainers face in equipping new entrants to the labour market with the relevant skills? #TeachersDay

Cocoy Sardaña SkillsforEmployment * 10 days ago
Dear Albert,

Thanks for your tweet! You can still join the conversion in the e-discussion. Several contributors have mentioned that teachers and trainers face the challenge of upgrading
their skills and learning new and updated methods that could help students be more prepared for work. Can you share your views on how this can be addressed?

**Con Gregg • 10 days ago**

Dear colleagues,

As we come towards the end of the first week of this e-discussion, I would like to draw your attention to the Guide to Anticipating and Matching Skills and Jobs – Working at Sectoral Level, a recently released joint publication of the ILO, ETF and CEDEFOP. This is a great resource to learn about the global diversity in sectoral approaches to skills anticipation and skills matching. It provides an overview of approaches and methods. It looks at institutional arrangements, including the role of sectoral bodies such as sector skills councils. It looks at a wide range of practical considerations in analysis. Valuably, it provides 22 country case studies, to help you see the diversity of sectoral approaches in context.

You can see the Guide linked under publications on the top right of this page. I would encourage you to download it and take a look. If you have any observations or questions, you are more than welcome to raise them here.

With best regards, Con

**SkillsforEmployment Mod • 11 days ago**

The following contribution was provided by Vinay Swarup Mehrotra ....

Greetings!

I would like to congratulate ILO for hosting the E-discussion on such an important topic "Providing the right skills at the right time: How sectoral skills development contributes to productive and competitive economies". Based on my experience, I have the following replies to the questions:

What particular challenges do governments face in imparting quality skills training?

Availability of master trainers is a major challenge that the governments face in providing quality skills training. The lack of provision for preparing master trainers, with suitable soft and technical/vocational skills, has been a major impediment in imparting quality skills training. People who possess “quality skills” prefer to do jobs in industry, rather than opting for a career as a trainer. This is more so because jobs in Industry are well paid as compared to the training institutions. Therefore, in order to attract talented and experienced trainers, it is imperative to provide better pay and incentives to the trainers as compared to the best paid jobs in the Industry.

What barriers do employers and the private sector confront in filling jobs?
Most of the studies have shown that the lack of employability skills, especially good communication skills and team work are the major factors that the employers and private sector confront in filling the jobs.

And, what obstacles do workers, in particular young people, face in obtaining the right skills to prosper in today’s labour market?

Entry level workers generally lack experience and therefore, face difficulty in adjusting to the work environment and rigorous work schedules. They need to be trained on soft skills, such as self-management, stress management, standard operating procedures, office procedures, etc.

What has been your experience in working with supply-driven models, and what can be done to accelerate the shift to a demand-driven approach?

Supply driven skill development model works well when there is a potential for creation of new jobs or self employment opportunities. Supply driven model is driven by innovation and new developments, whereas demand driven model is appropriate where jobs and the demand for the set of competencies already exists and are standardised. Imbalances between the demand and supply of skills occur when demand driven system is not based on the estimates of the labour market for the various jobs in the sector.

How can existing infrastructure for skills development – TVET institutions, universities, industry training institutions, secondary schools (in association with the private sector), etc.. – better adapt their services to the needs of the labour market?

The TVET institutions, universities, industry training institutions, secondary schools should work closely with the local industry to meet the demand for skilled manpower. Labour Market Information System (LMIS) should be utilized for assessing the manpower needs.

What particular challenges do teachers, instructors and trainers face in equipping new entrants to the labour market with the relevant skills?

Teachers, instructors and trainers face the difficulty of equipping the new entrants with soft skills, as it largely depends on the educational achievements of the person.

Con Gregg  SkillsforEmployment  11 days ago
Greetings Vinay Swarup Mehrotra,
Thank you for your most useful contribution. It is welcome that you have addressed the questions systematically.

Having education and training institutions work closely with local industry to meet the demand for a skilled workforce is an important part of the picture, and one that is often far weaker than it could be. Sometimes this works mainly through direct contact between institutions and industry, and sometimes it involves a sector level approach.
such as a sector skills council. Could you tell us more about your experience of what works well in this sort of collaboration?

On the difficulties faced by teachers, instructors and trainers, I think what you have said on availability of master trainers is a very important point. We frequently see teacher skills, and the challenges in staying up to date, as a key constraint in TVET systems, and other contributors to the e-discussion have also highlighted this. Access to high quality training seems to often be a key constraint. Have you any example of successful initiatives relating to master trainers?

You raise an interesting point about supply-driven provision. Where I have seen supply-driven approaches operating in practice, they are mostly not very forward looking, and the resulting skills mismatch causes problems. Good forward-looking approaches that I have seen in skills supply mostly pay close attention to industry demand, and work closely with industry to anticipate what skills are needed for new developments and innovation. I am very interested to hear of any good examples you have in this area.

Con Gregg • 12 days ago

Dear all,
If you have contributed so far, thank you very much for your engagement in this e-discussion. I think that we are bringing to the surface many important issues around the quality and relevance of education and training, building industry involvement, and the role that sectoral approaches can play. If you have just arrived, or are watching and waiting for your moment, a big welcome, and please join us.

As we reach the mid-point of the first week of our e-discussion, I would like, as facilitator, to ask you to move on to the next two questions.
- How can existing infrastructure for skills development – TVET institutions, universities, industry training institutions, secondary schools (in association with the private sector), etc. – better adapt their services to the needs of the labour market?
- What particular challenges do teachers, instructors and trainers face in equipping new entrants to the labour market with the relevant skills?

Looking forward to building on the good start we have made in mutual learning. Very interested in your views, and may the discussion continue to be lively and engaging! Regards, Con.

p.s. As my colleague and co-facilitator Cocoy Sardana has mentioned, today is an especially good day to raise the second question, being annual World Teachers’ Day, celebrating 5 October 1966, when a special intergovernmental conference convened by UNESCO in Paris adopted the UNESCO/ILO Recommendation concerning the Status of Teachers, in cooperation with the ILO. We also draw your attention to the recent ILO Employment Policy Working Paper on “Vocational teachers and trainers in a changing world: The imperative of high-quality teacher training systems”. See: http://www.skillsforemployment...
Bonjour,
Je crois que dans beaucoup de pays comme le Sénégal; la demande (c'est à dire le secteur qui emploie) et l'offre (c'est à dire le secteur qui forme) ne se connaissent pas. L'un et l'autre travaille chacun de son coté.Les formateurs certes très bon professionnellement ont souvent du mal à intégrer ce que font les entreprises parce que les ignorant royalement. En effet les réalités de l'entreprise ne pouvant pas être prises en compte par les formateurs, on aura un produit décalé qui ne correspond pas du tout aux évolutions actuelles des métiers et des compétences. Or pour les besoins de la compétitivité les entreprises ont besoins d'un produit (employé) qui s’intègre aussitôt car il n y plus de temps d'adaptation. De plus en plus l'apprentissage dans l'entreprise n'est plus de mise rendant indispensable les séjours en entreprise pendant la formation.

(Unofficial translation)
Hello,
I believe that in many countries such as Senegal, demand, (that is, the sector that employs) and supply (that is, the area that forms) do not know each other. Each one works on its own. The trainers are certainly very good, however, they often have difficulty integrating what the companies need because they don’t know what they (companies) need. Indeed, business realities cannot be taken into account by the trainers. Because of this, we will have a product that does not correspond at all to current developments in trades and skills (needed). Yet, for competitive business needs, the companies need a product (employees) that is able to immediately integrate because there is no longer time to adapt. More and more learning in the business becomes indispensable, making essential training while working.

Dear Sarr Souleymane,

Thank you very much for joining the discussion. A critical question is -- how can schools/universities and training institutions have better linkages with industry? Accurate and timely information on industry's needs (demand) is critical to help training institutions and schools/universities produce graduates (supply) with the skills needed when they're needed. How can they access such information to be able to adapt their services to the needs of industry and perhaps even provide career guidance to their students?
Your mentioning of trainers is very timely as we celebrate World Teachers’ Day today. See: [http://en.unesco.org/events/wo...](http://en.unesco.org/events/wo...). Kudos to all teachers and trainers for their work in shaping the minds and skills of generations.

Let me draw attention also to an ILO Employment Policy Working Paper (No. 177) on "Vocational teachers and trainers in a changing world: The imperative of high-quality teacher training systems". This paper provides a conceptual framework that government agencies and TVET institutions can use to examine the internal efficiency and coherence of their teacher preparation programmes, as well as assess the dynamic capability of the system to anticipate and respond to the needs of both employers and students. [http://www.skillsforemployment...](http://www.skillsforemployment...)

Colleagues,

Special thanks first to all those who have posted on this over the past several days. Good stuff!

My perspective is based on experiences in industry (light & heavy construction, oilfield, forestry, mining), government (hospital patient care, social work, training & development), NGO’s (social work), and community colleges (literacy, life skills, high-school completion, workplace education), and more, across the prairies, parkland, mountain, boreal forest, and tundra areas of western Canada, over the past 45 years.

Unless an employer is prepared to guarantee a job of a duration at least equal to the period of training and education required for entry level qualification, I counsel that government funded training & education be limited to generic (transferable) knowledge and skills only.

Generic employment related instruction and training could be done prior to departure from the K-12 (primary & secondary) school system. For example, a “Reading” curriculum based on OHS&E laws and cases rather than Shakespeare, and “Technical Climbing & Rappelling” training rather than Football, Basketball, and Weightlifting.

Sector (Industry) Councils can fund their own education and training programs and centers, rather than taxpayers doing this on their behalf. Cooperation with Trade Unions for these purposes would put the two parties most concerned together to develop and deliver the most appropriate and timely programs for their ongoing mutual benefits.

Six years ago the Oilfield and Mining sectors in this part of the world were crying for Competent Workers, and in the absence of such hired whoever was available and trained them on the job, or brought in competent workers from other countries. Every other sector was affected by this, and restaurants closed because they could not find dishwashers, servers, or cooks willing to work for the low wages being offered. Workers with nothing more than generic education and training
were earning more than university professors. Indeed, the greatest supply of cooks, servers, and dishwashers here became those with university degrees who were holding out for “decent work.”

During this boom time, individuals who had less than the requisite generic education and training continued to languish unemployed. Had our public policy been that employers were NOT permitted to import competent workers from around the world, what would have been the effect on the status of the generically incompetent unemployed? Would Sector Councils and employers have taken the trouble to develop these available unemployed workers to the minimum level necessary, for the benefit of society as a whole?

Now the Oilfield has crashed, Mining is weak, governments are laying off workers, and competition is strong for dishwashing, serving, and cooking jobs that pay little.

My observation of the one characteristic that most defines who has retained employment through this boom and bust cycle is this: ATTITUDE. No amount of education and training will preserve a nasty personality on a leaking lifeboat in a wild storm – they will be thrown overboard by the rest of the crew as a matter of self-preservation. https://edunorth.wordpress.com...

My recommendations to young workers here for career development include especially:

Safety Officer Certification. Various sectors. Approximately 21 days required, and about $1000 for associated costs. This program can be completed in one or two day blocks, distributed throughout the year if desired. (In a society that requires 200 days of school attendance during EACH YEAR of K-12, why has this not already been completed by every young person?)
http://www.worksafesask.ca/res...

Rappelling & Technical Climbing, and Rigging & Hoisting. Wind Turbines are being erected at large scale, and all of them require ongoing maintenance. Also, existing structures such as Oil Reservoir Tank can be inspected and maintained at much less cost by rappelling down than by building scaffolding from the ground up. Minimal time and cost for the relevant education and training, relatively high pay, and ongoing employment. (Alternatively, try finding employment as a Weightlifter.)
http://www.saskwind.ca/employm...
http://canwea.ca/

Non-Destructive Testing. While massive layoffs have occurred in the Oilfield, Mining, Government, and elsewhere, infrastructure must still be maintained. Manufacturing plant piping, tanks, cargo vessels, pipelines, water & sewer distribution & treatment plants, all require routine inspections. Those who do Non-Destructive Testing at Fort MacMurray have not skipped a beat during the recent oilfield downturn. About eight or nine years ago NDT work required only a one week course of preparation. It now requires about 12 weeks of preparation, but those who complete the program are still guaranteed an offer of employment – unless they have established a reputation as a nasty personality.
http://www.keyano.ca/Continuin...

That’s about all of the wool that I can pull out of my head today.

Looking forward to reading more thoughts on this.

Yours,
Dear Mr Boyle,

Thank you for sharing your interesting insights (as well as career advice!) based on your experience in Canada. Your emphasis on generic knowledge and skills as well as the importance of "attitude" perhaps echo the emphasis of employers on the need for soft or core skills among new applicants and even among existing workers. This was also raised in some of the earlier contributions in this discussion.

Could you kindly share more information on the Sector Councils? Some developing countries are now just setting-up or planning to establish sector (skills) councils with the intention of supporting the development of specific priority sectors. What do you think should be taken in consideration when setting up sector skills councils?

Dear Friends

This discussion is most timely and important, I acknowledge the contributions thus far from our esteemed colleagues across the world and would like to contribute some comments briefly to the week 1 questions:

What particular challenges do governments face in imparting quality skills training?
Capability to partner and collaborate with stakeholders and partners
Lack of future skills needs preparedness and capacity
Fiscal limitations particularly in context of capital investment
Quality indicators not including employability, outcome and labour market type indicators
Limited investment in CPD of educators and supporting industry placement of educators
Catching up with pace of change in the marketplace, labour market, technology and expectations of citizens

What barriers do employers and the private sector confront in filling jobs?
Capability to partner and collaborate with stakeholders and partners (ditto)
Availability of suitably competent persons.
Under investment in continuing employee development
Attractiveness of employer compared to better Human Resource Development focused enterprises.
Lack of employability of prospective new entrants
Capability to identify needs that are both current and future oriented
And, what obstacles do workers, in particular young people, face in obtaining the right skills to prosper in today’s labour market?
Lack of work experience, low levels of awareness of employability and transversal skills.
Not being challenged or prepared for the World of Work
Falling through the cracks, employers not supporting skills development
The is it a cost or investment conundrum

Yours in Innovation, Skills & Sustainability

Rónán

Rónán Haughey MIITD; MInstLM; MIEP
Founder & Development Partner
Supporting People Develop their Skills, Innovatively for their Business and the World of Work

"It's been a great day when you've managed to exhaust your body and your mind. But not your ability to learn"

Cocoy Sardaña  Rónán Haughey * 13 days ago

Dear Mr Haughey,

Thanks for your succinct enumeration of the challenges faced by governments, employers/private sector and worker, especially young people. Would you say that these are global challenges, regardless of level of development of a country?

I noted that you mentioned "capability to partner and collaborate" as a challenge for both government and the private sector. What could be the important elements to address this two-way challenge? Perhaps still along partnership and collaboration, how could workers organizations have a more prominent role in promoting skills development?

G S Sethi  * 14 days ago
G. S. Sethi
TVET Consultant /India

INDIA: The Role of Sector Skills Development in Contributing to Productive and Competitive Economies

In India, general education and vocational education and training have been operating as separate verticals, with very little interaction between the two. This led to hesitation amongst the youth in opting for vocational education and training as it is assumed that this avenue will preclude the
concerned individual from being able to acquire higher degrees and qualifications. In order to facilitate mobility from vocational to general education and vice-versa, a qualification framework for India, i.e. the National Skill Qualification Framework (NSQF) is expected to help make qualifications more understandable and transparent.

In consideration of the above background and other related factors, Government of India issued a notification in December 2013 with regard to National Skill Qualification Framework (NSQF). Subsequently the Government directed technical education institutions and universities, schools and higher education departments providing technical education to get affiliated to NSQF in order to ensure that they continue getting funded by the Government.

An important aspect of NSQF notification is “Industry Engagement” which states:

"Since the NSQF is based on an outcome-based approach, participation of the industry and employers is a critical prerequisite for the success of NSQF. Vocational education, vocational training, general education and skill development courses will be designed, developed, delivered, and learners assessed and certified in accordance with the NSQF in consultation with SSCs (Sector Skill Councils), industry and employers. In addition to this the industry may also provide support in terms of providing training institutions”.

As is evident from the above, sectoral approach has come to occupy an important position. India has already established 38 Sector Skill Councils, which include Auto, Retail, IT/ITeS, Media and Entertainment, Healthcare, Gems & Jewelry, Leather, Electronics, BFSI, Logistics, Construction, Food Processing, Life Sciences, Hospitality, Textiles & Handlooms, Apparels, Handicraft, Power, Iron & Steel etc. among the priority sectors. Besides this there are Sector Skill Councils relating to Large Workforce Sector such as Telecom, Capital Goods, Agriculture, Mining etc. In addition there are Sector Skill Councils established for informal sectors like Security, Plumbing, Beauty & Wellness etc.

There are approximately 450 Corporate Representatives in the Governing Councils of these SSCs.

Sector Skill Councils (SSC) are set up as autonomous industry-led bodies for steering skill development and training. They

• Create Occupational Standards
• Develop competency framework
• Conduct Train the Trainer Programs
• Affiliate Vocational Training Institutes
• Conduct skill gap studies in their sector leading to a Labor Market Information System
• Assess and Certify trainees on the curriculum aligned to National Occupational Standards developed by them.

Presently sector skill councils as given in the box have been established.

Sector Skill Councils established in India
• Agriculture Sector Skill Council
• Apparel, Madeups & Home Furnishing Sector Skill Council
• Automotive Skills Development Council
• Aviation & Aerospace Sector Skill Council
• Beauty & wellness Sector Skill Council
• Banking, Financial Services & Insurance (BFSI) Sector Skill Council of India
• Capital Goods Sector Skill Council
• Construction Sector Skill Council
• Electronic Sector Skill Council of India
• Food Industry Capacity & Skill Initiative
• Gems & Jewellery Sector Skill Council of India
• Handicrafts Sector Skill Council
• Healthcare Sector Skill Council
• Earthmoving & Infrastructure Building Sector Skill Council
• Iron & Steel Sector Skill Council
• IT-ITeS Sector Skill Council
• Leather Sector Skill Council
• Life Sciences Sector Skill Council
• Logistics Sector Skill Council
• Media & Entertainment Skills Council
• Skill Council for Mining Sector
• Hydro Carbon Sector Skill Council
• Plumbing Skill Council of India
• Power Sector Skill Council
• Retailers Association’s Skill Council of India
• Rubber Skill Development Council
• Security Knowledge and Skill Development Council
• Sports, Physical Education, Fitness and Leisure Sector Skill Council
• Telecom Sector Skill Council of India
• Textiles & Handloom Sector Skill Council
• Tourism & Hospitality Sector Skill Council

Some of the highlights are:

• 38 Sector Skill Councils (SSC) approved in services, manufacturing, agriculture & allied services, and informal sectors. Sectors include 19 of 20 high priority sectors identified by the Government and 25 of the sectors under Make in India initiative.
• 1386 Qualification Packs with 6,744 unique National Occupational Standards (NOS). These have been validated by over 1000 companies.
• Vocational training introduced in 10 States, covering 2400+ schools, 2 Boards, benefitting over 0.25 million students. Curriculum based on National Occupational Standards (NOS) and SSC certification. Work is going on with 21 universities, Community Colleges for alignment of education and training to NSQF.
• Skill Development Management System (SDMS) with 1400 training partners, 28179 training
centres, 16479 trainers, 20 Job portals, 77 assessment agencies and 4983 empanelled assessors. Hosting infrastructure certified by ISO 20000/27000 supported by dedicated personnel.

As such India has taken rapid strides for large scale skill development with sectoral approach as its focus.

Dear Dr. Sethi,
Thank you for the information on India's TVET system reform. Understand the system is growing. May I request that you elaborate your contributions in the following areas?: (1) What is the impact of the new industry driven system? Is there any study regarding the employability of the graduates of the new system? What are the significant differences in respect of time in getting employed and increased income? (2) What about employers'/industry engagement in competency standards development and in assessment? (3) And, how are TVET institutes funded to adopt the new system, in respect of additional equipment, teachers training and to ensure industry engagement? Also, could you you please elaborate on how those sector skills councils are funded and what services they are providing?
Thank you.

Dear Mr. Sethi,
Thank you very much for drawing our collective attention to the developments in Sector Skills Councils in India, and to the role they have in setting occupational standards and strengthening skills development systems. They cover a huge range of important sectors, and the SSCs clearly have strong industry representation that should ensure relevance.

We often discuss sector skills councils with our constituents in other countries as offering a good model for sectoral approaches to skills. Are there any important lessons that you can draw from the Indian experience that might be useful to other countries aiming to develop SSCs themselves? What are some of the main barriers, and how have they been tackled in India?

Skills are key to boosting economic development. As such, Human Resources Development (HRD) emerged as one of nine pillars identified of the Seoul Multi-Year Action Plan (MYAP, 2010) for Development. This Plan committed G20 Member States and International
Organizations to supporting low-income countries in developing “employment-related skills that are better matched to the employer and market needs in order to attract investment and decent jobs.” In Mozambique, ILO is helping the Governments to adapt vocational education and training to the actual needs of the labour market and will support in the near future a specific project to adjust TVET institutions to the new law to govern Professional Education that was approved in September 2014. The Law establishes new standards and practices for state and non-state providers, encompassing both technical skills training and vocational training. It embraces public, semi-public and private TVET providers. The new legislation aims to modernise national training by making it more demand-driven and market-responsive, seeking a strong involvement of the private sector. To obtain central accreditation for a given qualification, a multi-step process is envisaged, driven by the private sector demands for skills and competences at the local level. Competence-Based Training (CBT) will be applied in all TVET institutions, to ensure market relevance of training offer and individual schools will have increased financial, administrative and pedagogical autonomy. The new law also intends enhancing private sector participation in: 1) school management through PPPs and specific powers to approve the School Activity Plan and to appoint the School Director; 2) curriculum and qualification design through participation in School Management Committee.

This Law is one more step in a reform process that began in 2006, when the World Bank and the Government embarked on a far-reaching reform of the country’s technical and vocational training architecture, through a dedicated programme that supported curricula reform to met CBT, teachers training and the purchase of equipment to address new curricula/programmes. After 10 years, the reform process is without any doubt a success in various areas, leading to more demand-driven curricula and skills, but there is also some scepticism about its impact on trainees employability and mainly on the sustainability of the reforms. TVET institutions claim that CBT is a far more expensive process and that the employers are not really engaged on school management and on the overall reform process. That’s why the new ILO project will address the question of TVET institutes sustainability very seriously and new approaches will be needed, in a country like Mozambique, that today is ranked 180th (out of 188) in the Human Development Index of 2015 and where state budget is facing tremendous pressures for austerity in the aftermath of a recent fiscal crisis that led among other things to a drastic depreciation of the local currency, plummeting Mozambicans’ purchasing power and leading to a rise in inflation rates and poverty levels.

**Con Gregg, Ana Paulo * 14 days ago**

Dear Ana Paulo, Thank you very much for your detailed contribution. Can you share any links with us on the future ILO project, or on existing projects?

I see from your contribution that the barriers to adopting new competency-based curricula have arisen in Mozambique. Hari Pada Das has already described similar barriers in Bangladesh. What do you think can be done to make it easier for institutions to overcome these barriers, especially in the context of pressure on budgets?
Would you say that employers have seen the efforts they have already made to engage in TVET system reform have a clear impact in ways that benefit them and their workers? How do you think it may be possible for the system to engage more deeply with employers?

Dear Gregg,

New competence-based curricula demands more efforts from teachers/trainers and more financial resources invested in the learning and assessment processes. For example, the system implemented in Mozambique requires the establishment of an individual portfolio for each student, which should be evaluated by a jury that includes employers and should be organized and convened by TVET institutes. This implies costs that are difficult to be assumed by TVET institutes from a country with a very high poverty rate and where most of them do not hold the minimal operating conditions, in terms of facilities, equipment, electric power or even access to potable water. This is why education systems and learning and competence-based approaches should be deeply adapted to respond to the specific conditions of each country. Importing developed regions models is clearly not a solution! As for the involvement of employers, it will only be strong and committed if they perceive clear advantages and this can only be achieved if the graduates from competence-based programmes respond more effectively to the needs of companies than those trained by the traditional approach. This should be demonstrated in a very clear way, and what remains to be done still in Mozambique is a clear assessment of the impact and value added of the competence-based curricula in the productivity, quality and general achievements of companies. It’s also crucial not to forget soft skills, in the competence based approach. In Mozambique, in a very recent study, employers clearly stressed that the main obstacle in the recruitment of young Mozambicans are soft skills, like commitment to work, decision capacity, autonomy, communication skills, and not so much technical skills.

Dear Ano Paula,

Thank you. Your description of the challenges is illuminating. From your description of the assessment process, it seems very thorough, if resource-intensive. In advance of the assessment of the impact and value-added of the competency-based curricula, do you have any sense of the views of employers?
I have seen the gaps in soft skills that Mozambican employers identify as a barrier to employment echoed in many other countries at all levels of development.

The discussion thus far has tended to focus on competence in its operational mode, in its application and performance and not its latent form. Among those who advocate competence-based approaches to training and education there appears to be clear preference for programmes that enable students/trainees to act, to do things, to apply what they have learned in a social, occupational and material world and not merely to understand, to analyse, to discern, to reflect. Does this represent deviation from the values of a rounded education? At first sight maybe it does. Peters (1966) led the way in establishing an over-simple distinction between education and training. Education, according to Peters, is a non-instrumental and worthwhile for its own sake, and its aims are intrinsic rather than extrinsic. This may be contrasted with the utilitarian character of training - a contrast that could be extended to the kind of characterisation of competence based education. I believe there is something to be said against such a sharp antithesis and in favour of the liberating character of competence based education.

Dear Joseph H.,

I tend to agree, and I think the fact that we talk about Technical Vocational Education and Training (TVET) shows an appreciation that in practical terms boundaries drawn between education and training can be somewhat arbitrary. Employers and workers’ representatives tend to place a high priority on social and cognitive skills (or more precisely what we in the ILO usually call core work skills: http://www.ilo.org/wcmsp5/groups... as well as on technical skills. These include skills in areas like communication, problem solving, the ability to learn and adapt, and innovation (at a level appropriate to the level of the qualification) that should be characteristic of a rounded education.

What do commenters think about this? How relevant is delivering a “rounded education” within pre-employment training to the needs of employers and workers?

See: Integrating core work skills into TVET systems: Six country case studies. http://www.skillsforemployment...
To coin an old Irish expression, it's not a case of "one or the other, jam or butter!"

Rónán

Hari Pada Das • 17 days ago
Skills mismatch is a big concern for Bangladesh. TVET institutes produce graduates and in most of the cases they do not really meet the needs of industry. It is supply driven - trade or technology TVET institutes continue. Industry complains that they are losing business due to a shortage of the right kind of skilled workers, while on the other hand TVET graduates do not find the right jobs. It is general phenomenon.

To address the agenda, an industry driven curriculum development process has been developed and introduced in a few industry sectors under the Bangladesh Technical Education Board. This new initiative started in 2012 after the approval of a new National Skills Development Policy - 2011.

Industry Skills Councils (ISC) have been formed in few priority industry sectors and priority occupations were identified by the industry bodies. Competency Standards and Course Accreditation Documents for those priority occupations are developed and introduced in few institutes. Industry is involved in course development and also in assessment of graduates after completion of courses.

This new process is growing and few TVET institutions are trying to adopt to the new system, but the rate is very slow. It requires huge investment, specifically for teachers training, lab setting and assessor development.

The process is dynamic, ensures quality and industry involvement at all stages. Employment rate of these graduates is high and income is also higher.

But it takes time and requires lots of attention at all levels.

Con Gregg • 15 days ago
Dear Hari,
Thank you very much for updating us on the progress that Industry Skills Councils in Bangladesh are making in developing relevant curricula for priority occupations in Bangladesh. What you say about the barriers that TVET institutions face to adopting these new demand-driven curricula seems very important. What do you think can be done to make it easier for institutions to overcome them?
Dear All,

You are very welcome to this e-discussion on - Providing the right skills at the right time: How sectoral skill development contributes to productive and competitive economies. I will be moderating for the first week. The e-discussion is scheduled to run for two weeks, and full details are in the Guidance Note. The questions for this first week are shown above. I propose that we focus on the first two questions over the first half of the week, and then progress to the other two.

The first question is about the barriers and obstacles that governments, employers, workers and future workers face in developing and supplying the quality skills needed to prosper. Can we think about learning in education and training institutions and in the workplace, and indeed models that combine both? The second question is about your experiences with supply-driven models of education and training provision, and what you think can be done to strengthen demand-driven approaches.

Looking forward to this opportunity for mutual learning. Very interested in your views, and may the discussion be lively and engaging! Regards, Con.

Dear Con

Regarding your second question about my experiences with supply-driven models of education and training provision, and what you think can be done to strengthen demand-driven approaches.

Skilled human resources are amongst the most crucial inputs of a modern economy. All TVET learners once they are qualified respond by producing what consumers want, which, in turn, will assist in economic growth. The TVET System would deliver human resources according to labor market needs.

Quality of training has become priority and the emphasis is now on the right education and training for the right person at the right time from the perspective of the labor market. This concept is generally known as Demand Driven TVET. When TVET Systems match this demand, the competence of their students is characterized as appropriate.

The demand side of a TVET System is to be based on the Labor Market Information System and Policy. In its simplest form, demand-driven TVET may be defined as the minimum quantity of skilled labor required for achieving an output at a target level. The demand for appropriately educated and trained human resources will be estimated by:

1. Using forecasting models to predict the number of graduates required from vocational training institutes / schools / centres in terms of occupational categories
2. Determining to what extent the content of work is related to the learning programmes
presented at vocational training institutes / schools / centres.
3. Determining whether it is getting harder or easier to find work.
4. Determining how quickly graduates find their first work and how mobile they are thereafter.
5. Determining what kind of work graduates prefer and expect. Determining how the preference relates to the jobs into which they enter.
6. Determining what the obstacles are to setting up self-employment.
7. Determining to what extent non-educational factors such as family background, age and location are important in achieving success in school and in the labour market.

The supply side of a TVET System is related to the TVET Providers and Reform Policy. The supply of appropriately educated and trained human resources will be estimated by:
1. Forecasting the inflow, through flow and outflow of students and learners into and out of the (TVET System)
2. Summarizing education and learning programmes presented at preparatory and secondary education levels.
3. Describing the access and success variables associated with these learning programmes.
4. Determining to what extent the content of work is related to the education and learning programmes presented at preparatory and secondary education levels.
5. Establishing to what extent vocational training institutes / schools / centres help their students to find work or advise them about additional education.
6. Finding out how people get to know about the learning programmes presented at vocational training institutes / schools / centres and which they are going to enter and why they enter them?
7. Establishing to what extent education and training institutions help their students with occupational information, e.g. to know range of work types, the minimum level of earnings, find work, learn about opportunities or advise them about additional education.

Moustafa Wahba  Con Gregg  13 days ago

Dear Con

Regarding your first question about the barriers and obstacles that governments, employers, workers and future workers face in developing and supplying the quality skills needed to prosper, I would summarize such barriers and obstacles as:
1. Commitment to quality at all levels within any enterprise and especially at senior management level
2. Management structures have to be more consultative and less hierarchical
3. Identification of key areas of non-conformance and taking corrective actions
4. Standards are guides against which quality programmes can be defined, implemented, and audited. They are important in identifying, comparing, and making
continuous improvement in Quality Management QM of Technical and Vocational Education and Training TVET.

5. Internal or external standards or a combination could be used as part of the implementation of QM of TVET

6. Workers have to be empowered to be able to make decisions at all levels of the enterprise

7. Workers have to be trained and involved in the building of the philosophy for QM of TVET

8. The communication links between workers and management and between the enterprise and all aspects of the Enterprise Supply Chain must be excellent. The supply chain is the network of suppliers, manufacturers, wholesalers, distributors, and retailers, who turn raw materials into finished goods and services and deliver them to consumers. Supply chains are increasingly being seen as integrated entities, and closer relationships between the organizations throughout the chain and better aligning of the capabilities of supply chains can bring competitive advantage, reduce costs, and help to maintain a loyal customer base.

Con Gregg Moustafa Wahba * 13 days ago

Dear Moustafa,

Thank you for your thoughtful response to the question. It is especially interesting to see these issues from the perspective of what I think is mainly enterprise-based training, if I understand you correctly. Your focus on skills as contributing to the performance of the supply chain as an integrated entity, and as a driver of competitive advantage, is, I think, very useful.

Moustafa Wahba Con Gregg * 14 days ago

Dear Con

With regard to the ILO core work skills: http://www.ilo.org/skills/pubs, we generally categorize the different Key Competencies in oil and gas industry to be assessed in the following Key Assessment Subjects:

• Core Competencies
  These are the most important specific technical competencies required to be acquired by a particular discipline as core competencies to carry out the roles covered by the Competency Framework.

• Section B: Support Competencies
  These are the specific technical competencies required to be acquired by a particular discipline from other disciplines' competencies to carry out the roles covered by the Competency Framework.
• Section C: General Competencies
These are the general technical competencies required to be acquired by all disciplines during their training and development period.

• Section D: Personal / Behavioural Competencies
These are the non-technical competencies required to be acquired by all disciplines during their training and development period.

The above Key Assessment Subjects are further broken down into a number of Modules / Units which further are broken down into number of Elements / Tasks outlining the actual things that employees / trainees will need to know about.

Dear Eng. Moustafa,
Thank you very much for sharing that Oil and Gas sector competency framework, which emphasises the breadth of different types of skill required even in a single occupation in an industry if its members are to work effectively together and with other occupations in the industry. Could you possibly give us some background on the framework's role in the sector? Where it came from? What types of input stakeholders, including employers, have had in its development and maintenance? Where it is deployed - mainly within businesses, or at education and training providers? How universal it is within this very international sector? What you think other sectors might learn from all this?

Dear Con,
Initially, let me emphasize that the Competency Based Education and Training (CBET) System used for Technical and Vocational Education and Training (TVET) & Competency Assurance Management System (CAMS) used for Assessment and Verification within oil & gas industry can be also applied in any other sector of industry.

The competency approach to training and assessment is one which can be used in all sectors of industry, including oil & gas industry. Sectors of industry which are not applying such an approach can learn a lot from the Competency Based Skills Development approach used in oil & gas industry.

In the concept of competency-based approach to TVET, the progression and completion of education and training are aligned with the concept that progression through education and training should be based on the competencies (group of related awareness, knowledge, skills and
attitudes) attained rather than on the time served.
As per your request for description, the Competency Development Framework (CDF) for any occupation has to be established, related to real activities conducted in the work place and designed to meet the Required Minimum Competency Standards (Levels).
CDF can be understood to represent the language of performance in an Organization / Enterprise or TVET Institution articulating both the expected outcomes of an individual’s efforts and the manner in which these activities are carried out. The individual could be a company employee or apprentice / trainee within a TVET Institution.
In designing a framework, care should be taken that only measurable components are included. It is important to restrict the number of competencies required to be acquired for any particular role and arranging them into Modules or Units of Competency containing like (similar) topics to make the framework more flexible and accessible to the users (Modular Arrangement). The framework should contain definitions and/or examples of each competency/skill.
The Module or Unit of Competency is formed by a group of “Elements of Competency”; it has a clear meaning in the work process and, therefore, it has value for the work itself. The Module / Unit not only refers to the functions that are directly related to the job’s objective, it also includes any other requirement connected with health and safety, quality and relationships at work.
For further detailed information, I can be contacted via:
Eng. Moustafa Wahba
Competency Assurance & TVET Consultant
Scottish Qualification Authority SQA Qualified Internal Verifier

Dear Moustafa,
Thank you very much for the additional information. I think the elements of the systems you describe are present in many countries and sectors, but it is very interesting to hear about a sector that deploys them internationally.

The social and economic trends predicate the need for reforming the TVET and Skills Development System with a view to have a new development pattern which holds a culture of economically, environmentally and socially Sustainable Development SD.
In my point of view as TVET Expert, the basic TVET and Skills Development System Reform Challenges and Priorities can be summarized in the following main issues:

A. Delivering a TVET and Skills Development Demand Approach
B. Delivering Quality Based Approach to TVET and Skills Development
C. Engaging Community as Significant Players in TVET and Skills Development
D. Systematic Professional Development of TVET and Skills Development Instructors / Trainers / Teachers
E. Keeping Pace with Technological Advancements and Using Technology Appropriates in TVET and Skills Development
F. Encouraging Continuing TVET, Skills Development and Lifelong Learning LLL
G. Vocationalisation of Higher Education HE in Developing Countries
The TVET and Skills Development should develop close interfaces with HE and other education sectors to facilitate seamless pathways for learners with an emphasis on relevant work experience and allow learners to enter gainful employment or pursue HE opportunities
There are some areas where HE and TVET could improve their collaboration such as:
1) Contribution of HE sector towards re-development and interpretation of TVET and Skills Development Packages (Curriculum & Training Programmes)
2) Contribution of HE sector towards Training of TVET and Skills Development Trainers / Instructors / Teachers
3) Research and Shared Vision between HE & TVET and Skills Development in Contribution to Sustainable Development SD
4) Joint development of resources and pedagogy that promotes Sustainable Development SD and encourages a culture of sustainability in TVET and Skills Development
H. Adequate Funding of TVET
I. Establishment of Monitoring and Evaluation M & E Systems in TVET and Skills Development Projects
J. Establishment of Management Information System MIS & Knowledge Management KM System
K. Engaging Industry as Significant Players in TVET and Skills Development
In order to convince and engage employers and enterprises (industry) to be significant players in TVET, we should ensure the implementation of all the above listed challenges issues.

Eng. Moustafa Wahba
Competency Assurance & TVET Consultant
Scottish Qualification Authority SQA Qualified Internal Verifier
E-mail address: mmm.wahba@gmail.com
Greetings, Eng. Moustafa,

Thank you very much for your detailed contribution, which introduces many points relevant to our e-discussion.

It is interesting that you highlight the scope for collaboration between universities and TVET. Do you think this could help make developing countries more self-sufficient in improving the quality and industry relevance of TVET provision, especially for priority sectors and occupations? How would you see that it might integrate with industry-driven sectoral approaches to anticipating, identifying and providing for skills needs?

Moustafa Wahba

Dear Con

The following are other thoughts about the second of your second week two questions mainly: The Knowledge / Skills / Experience Profile of TVET Institution Managers, Instructors / Trainers / Teachers. The TVET Institution Managers have overall responsibility not only in the running of their own TVET Institutions, but also in the overall business process. The main profile and sub profiles of TVET Centre Managers should be clearly described.

In-company TVET Centre Managers are full-time employees in a large company / enterprise in private and public sectors. Their main functions concern administrative, finance, human and technical resources management. They have to set up the training system, assessment tools and plan of the centre and its placement within the overall training strategy of the company / enterprise. The majority of In-company TVET Centre Managers has not only responsibility for training, but can remain still active in coaching and counseling.

Inter-company TVET Centre Managers are in charge of leading and developing their own TVET Centre. Their main functions concern general management, administration, finance, human resource, business strategy and marketing, planning of the educational system, staff recruitment and assessment, coaching and advising.

A grid for a competency framework of the profile of TVET Institution Manager must be designed and developed to identify the competencies that are necessary for carrying out the main functions of TVET Institution Manager.

One of the biggest challenges in an Instructor / Trainer / Teacher career is to efficiently conduct the training session. The ability to develop, design and, above all, deliver a training programme is a key factor for an Instructor / Trainer. The Instructor / Trainer is required to manage interpersonal relations within the classroom and be aware of coaching.
skills at a deep psychological level. Equipped with these, Instructors / Trainers will be able to develop productive training programs through their career. In the underlying theme for this course, a distinction is made between subject and pedagogical knowledge in the knowledge base of TVET Institution Instructors / Trainers / Teachers. This distinction is reflected in the Knowledge / Skills / Experience Profile of the TVET Institution Instructors / Trainers / Teachers.

Unlike the primary and secondary educational sectors, the TVET Institution Instructors / Trainers / Teachers are mostly not regulated; a pedagogical qualification (knowledge and skill) is often not a requirement for appointment as an Instructor or Trainer.

In the TVET sector, industry experience is considered important, in addition to subject matter knowledge. Therefore, the competency profile of the Institution Instructor / Trainer / Teacher must also include an industry experience component.

A distinction should be made between subject and pedagogical knowledge, and industry experience. Different routes generally exist in developing and acquiring the initial knowledge and experience required for proficiency as an Instructor / Trainer / Teacher. Such routes provide a useful framework, not only to distinguish between subject matter and pedagogical knowledge but also to enhance an understanding of pedagogical knowledge as a separate field of study of no lesser importance or value than subject knowledge. Subject matter knowledge represents the content that Instructors and Trainers have to work with.

Gaining industry experience enhances the utility and relevancy value of subject knowledge. Pedagogical knowledge, on the other hand, represents the human element in the instructional / training process. In order to conduct appropriate training / coaching, Instructors / Trainers / Teachers must be qualified and have attended at least a “Train the Trainer” Course. They could also gained different qualifications through an apprenticeship model, a Professional Train the Trainer Diploma or a Ph.D. in education. All these qualifications will assure the learning and training capabilities and roles of the Instructors / Trainers / Teachers.

Best regards.
Eng. Moustafa Wahba
Competency Assurance & TVET Consultant
Scottish Qualification Authority SQA Qualified Internal Verifier

Moustafa Wahba
Con Gregg * 9 days ago
Dear Con
The following are few thoughts about the first of your second week two questions mainly: The Institutional Development ID of TVET Institutions (TVET Institutes, Centres, Technical Schools, etc.)

It is very essential to explain how to enhance performance, learning and Institutional Development ID among the management staff of TVET Institutions by identifying and sharing practical experiences, Participatory methodologies and useful approaches and tools.

Institutional Development of a TVET Institution can be seen as an ongoing process originated from the Institution to raise the awareness of the Institution’s staff of the processes they are involved in and how the Institution can be autonomous (independent) and its performance improved. The new institutionalism for training that is becoming consolidated in some of the developed countries has also made evident the need for a new management approach.

It is also important to highlight the experiences that some institutions have tested, the trials they made for local management and the services utilized for the TVET Institution function and development either in an informal or formal manner as well as efforts made to raise the level of trainers and principals and improve the quality management in training within TVET Institutions.

Quality control of vocational training services is one of the challenges that TVET Institutions have to face in order to achieve higher levels of competitiveness.

In this important section of managing TVET, we need to emphasize on the design, implementation, and the follow-up and evaluation of high-level training programmes for those in charge of managing and implementing training activities in TVET Institutions. The responsibilities of TVET Institutions’ directors and teaching / instructional staff are the major factor in the Institutional Development ID of TVET Institutions.

In presenting certain tools and approaches used for performance improvement of TVET Institutions, we should not impose certain rationalities and tools on predefined schemes. On the contrary, we should share practices and open up tools and approaches used in ID processes to learning and reflection. The value of such tools lays not so much in their nature as in the way they are used. In other words, the key point is the attitude of the TVET Institution’s staff. Whilst tools may play a role as incentives for further thinking or in helping to analyze material, they can never replace a good TVET Institution’s staff. These tools and approaches seek to give credit to the need for taking the right attitude to facilitate and process management of TVET Institutions.
In general the TVET Institutions are those Vocational Training Institutions having responsible persons and set up of several units handling business activities concerning technical and vocational education and training, instruction, guidance, counselling, and technical services for training, general activities, human resources and accounting.

The In-company TVET Centres are those TVET Centres who manage and deliver the training by their own staff while the training in the Inter-company TVET Centres are managed and delivered by staff not belonging to a particular company (enterprise). In case of In-company TVET Centres, the training business activities may be handled simultaneously by the related units of the Company (Enterprise).

The TVET Institution is generally furnished with classrooms, workshops, facilities and equipment to be exclusively used for the purpose of technical and vocational education and training and it is manned by qualified and experienced vocational Instructors / Trainers / Teachers, Assessors and Verifiers, assigned and appointed to train, assess, verify and develop particular craftsmen and apprentices in accordance with established curriculum, training programmes and assessment / verification criteria.

As general policy, a TVET Institution has to ensure that the staffs of the Institution is fully committed to plan and develop the educational and training strategy and the Institution’s training system. The staff should ensure that trainees / students of the TVET Institution are fully trained, competent and equipped with the right combination of awareness, knowledge, skills and attitudes competencies to do their job.

A TVET Institution is committed to ensuring that:
A. The staff / workforce of the TVET Institution have received vocational training through work based learning / assessment and they are competent and equipped with the skills and knowledge they need to do their job
B. The Manager of the TVET Institution create an environment where staff feel motivated by their learning, and that achieving national vocational qualifications (if available) or higher vocational qualifications is supported, recognised, valued and systematically recorded and reported
C. Evaluation of the impact of vocational training on the competence of the workforce and services provided is continuously made
D. Assessment against identified competency standards (levels) is continuously made
E. Progress review is continuously done through the career development
of the TVET Institution’s staff
F. Frequent review of the TVET Institution’s Plan against key training service objectives
G. Different reports highlighting the out key learning investments and achievements are periodically issued

The responsibilities of the key players in achieving this policy; namely TVET Institution Managers, Instructors / Trainers, Assessors and Internal Verifiers should be clearly identified. The Assessors and Internal Verifiers must demonstrate their competence by gaining a recognized qualification in assessment and internal verification.

Best regards.
Eng. Moustafa Wahba
Competency Assurance & TVET Consultant
Scottish Qualification Authority SQA Qualified Internal Verifier

Hello.
Sectoral skills development, yes, I agree have proven to be very useful and have even worked much better where Sector Skills Councils are in place and working. The concern has always been that some practitioners believe in some of these approaches but are challenged implicitly and explicitly; more so, in an environment where people or the actors are discussing multi-skilling across sectors. This notwithstanding, we need to support the approaches that have been identified to be useful.

Conversation thread ends.
Annex B

Resource list from E-Discussion on “Providing the right skills at the right time: The role of sectoral skills development in contributing to productive and competitive economies”

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<thead>
<tr>
<th>Contributor (log-in name used for discussion)</th>
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<tr>
<td><strong>Good practices</strong></td>
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<tr>
<td>Alexis Hoyaux and Felipe Cassapo</td>
<td>Brazil “S System” /The Federation of Industries of the State of Paraná (FIEP). About FIEP <a href="https://we.tl/lqUq2WA5p">https://we.tl/lqUq2WA5p</a></td>
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<td>Moustafa Wahba</td>
<td>Monitor Lehrer-bildung (Teacher training in Germany): <a href="http://www.monitor-lehrerbildung.de/web/">http://www.monitor-lehrerbildung.de/web/</a></td>
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<tr>
<td><strong>Manuals/Tools</strong></td>
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<td><strong>Web-based resources</strong></td>
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<td><strong>Jobs if 20 percent Saskatchewan electricity generated with wind:</strong></td>
<td><a href="http://www.saskwind.ca/employment/">http://www.saskwind.ca/employment/</a></td>
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<td><strong>Mining Industry Human Resources Council</strong></td>
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<td><strong>Non-Destructive Testing training:</strong></td>
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<tr>
<td><strong>Wind is delivering clean, reliable and low-cost electricity:</strong></td>
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<td>FIEP About: <a href="https://we.tl/lqUq2WA5p7">https://we.tl/lqUq2WA5p7</a></td>
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**Publications**
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<td>Bolormaa Tumurchudur</td>
<td>Skills Needs Anticipation. Interview with ILO’s Olga Strietska-Iлина (Extended version)</td>
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