



Wilton Park



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Report

Building a skilled workforce in South East Asia: harnessing partnerships for success

Wednesday 16 - Thursday 17 November 2016 | WP1507



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Executive summary

The world of work is changing rapidly and training for the future workforce needs to reflect this. Thought-leaders from across ASEAN and the UK came together to discuss these challenges, share innovations and consider how to build successful partnerships. This report highlights the differences between the different country contexts but also the opportunities for sharing learnings.

A key issue was where the responsibility lies for building a new skilled workforce and how to encourage dialogue between Governments, Education Institutions, Industry, Employers, Parents and Students. Building successful partnerships between these stakeholders was seen as key to rising to future challenges especially around raising the profile of Technical and Vocational Education and Training (TVET) and changing the perception of students studying STEM subjects (Science, Technology, Engineering, Mathematics) to address future skills gaps.

Key recommendations include the need for Governments to first understand the problem and collect data to identify and plan for future skill gaps. Governments should also act as catalysts to overcome infrastructure challenges and increase access to training in more rural areas. Government regulation, such as the introduction of employer levies to fund apprenticeship schemes, can provide incentives for skills development. Employers and universities also need space for innovation to develop skills frameworks and align TVET pathways with academic pathways. There are opportunities to develop “portable qualifications” across the ASEAN region and more widely to provide quality assurance and enable workers to travel.

University programmes which include extended work-placed learning, such as Malaysia’s 2U2i plans (Two Years University; Two Years Industry), can support the development of soft skills, increase employability and raise the profile of TVET routes.

Employers also need to engage earlier with schools so that pupils and parents are aware of exciting future careers and the need for STEM subjects. A shift in perception with parents and students is also needed to raise the profile of TVET; countries such as the Philippines and Brunei are addressing this through different strategies.

There are wide-ranging opportunities for sharing ideas and harnessing new partnerships, both across this dynamic region and with the UK. The ASEAN region is well placed to lead the way in developing this skilled future workforce.

Introduction

Technology is revolutionising the way we work. A U.S. Department of Labour report estimates that 65 percent of today’s children entering primary school will be employed in jobs that do not yet exist.

Thought leaders from government, education institutions and business from the ASEAN region and the UK came together in November 2016 for a one-day dialogue to discuss how

countries can best prepare to address the challenge of educating and training the ASEAN region's future workforce for jobs that have not yet been created.

The Wilton Park dialogue was held in collaboration with the Bett Asia Leadership summit. The dialogue formed part of the UK's Education is GREAT campaign in Malaysia and was organised with the British High Commission in Malaysia in partnership with the Department for International Trade.

The objectives of the dialogue were to:

- Bring together thought-leaders from ASEAN and the UK to share innovative practice and ideas in equipping the future workforce
- Explore ways to encourage collaboration between schools, universities and private industry in a whole-of-education approach through the development and promotion of STEM subjects (science, technology, engineering & mathematics) and TVET (technology, vocational education & training)
- Identify innovative approaches to providing broader skills for employability
- Provide an opportunity for all stakeholders (political leaders, government policy makers, skills and training providers and others) to explore and develop future strategies.
- Identify opportunities to maximise partnerships to provide the skilled workforce of tomorrow.
- Link Malaysia's chairmanship of ASEAN Education (till 2017) with the UK Education is GREAT campaign

The discussion was in line with the Sustainable Development Goal 4 'Ensure inclusive and quality education for all and promote lifelong learning' which every country is committed to, and the outcomes of the Ninth ASEAN Education Ministers meeting on education in the ASEAN region.

ASEAN is set to be the 4th largest economy by 2030, however in order to achieve this economic goal the region needs to rectify the current skills mismatch and champion skills development, life skills and lifelong learning.

This report highlights:

- The importance of considering both the global and the local context when understanding the challenges of the future workforce needed in ASEAN countries and how to plan for this.
- Outlines ideas around what education should look like to prepare the future workforce.
- Different stakeholder's responsibilities.
- Recommendations and actions.

Context

The world of work is changing rapidly and the future is very unknown. With technological advances there could be 40 million new jobs by 2030 and these so called 'horizon jobs' are still to be generated. Coupled with the arrival of the 4th Industrial Revolution, technological advances and Artificial Intelligence, many jobs will also cease to exist (in America alone 40% of jobs will no longer exist by 2030) and jobs that are easier to digitise are the easiest to outsource. This will further increase the gap between "winners and losers" as those with poor skills are unable to access well paid and rewarding jobs and also more likely to see themselves as political objects rather than actors in the system.

There is also expected to be a significant increase in self-employment and with people no longer having a "cradle to grave career" there is concern that current and future students

are not going to be “workplace ready”. Employers are now looking much more at soft skills, including speaking English, in addition to knowledge and professional skills. There is also a need to foster resilience, agility and curious minds. Skills such as communication, creativity and critical thinking are not new, however the increased spread, reliance on and opportunities offered by ICT are changing the dynamic.

It is therefore vital to invest in the upskilling of current and future workers in these so-called ‘21st century skills’. The ASEAN region has the opportunity to rise to this challenge. This will require addressing the whole education system, especially at higher education level. A perception shift is needed so that TVET education routes are as equally valued and respected as academic routes. This change needs to happen across all stakeholders with students, parents, teachers, employers and governments all having a role to play. Students and parents also need to have more information when making education choices. In the past STEM subjects have been dropped in preference to arts that are seen as easier subjects to pass and achieve high grades in, however this closes off a raft of future career choices that are, and will be, in high demand in society.

Why context matters

Global

- There is no single solution to overcoming future skills and education challenges and neither is there one country that has the answer.
- Whilst there are some similarities across the ASEAN region, such as a strong commitment to education by both governments and parents, ASEAN is made up of ten very different countries with differing levels of economic advancement.
- It is therefore important that each country takes overall ownership for developing their own strategy and does not simply adopt a ‘copy and paste’ approach to new ideas and innovations.
- With the wider global context changing there is a rise of what can be termed ‘unconventionalism’. However, the recent political shift to the right with more nationalist policies could actually push individuals to take a more global outlook. Due to the continued spread of globalisation, there are other issues to consider that influence the skills and education agenda. One example is the role of migrant workers and its effect on immigration numbers. There are currently 250 million people moving around the world for work purposes. ASEAN countries need to address how to support the upskilling of foreign workers whilst also ensuring that industry and governments invest in training their local workforce.

National

- Countries need to fully **understand the nature of the problem** before deciding how to tackle this challenge. Without a clear picture of what the current and future skills shortages are, it is difficult for governments, industry and educationalists to respond effectively.
- The UK skills survey is one successful example used to gather information about the skills needs for the economy. This is administered through an independent body on behalf of the UK government to 90,000 business leaders every two years.
- A similar approach could be undertaken in ASEAN countries where it has not already been introduced. This would also contribute to a skills development ‘roadmap’.
- There are multiple **Political** influences that need to be addressed. Often education and skills are the responsibilities of different ministries which makes collaboration difficult; equally when ministers change with each new government. For example, in the UK in the past 60 years there have been 65 ministers responsible for skills, 30 acts of parliament to support skills and 11 complete changes in policy direction.
- Sometimes the main barrier to progress is the government. For example, it was noted that in Thailand the large civil service may be a key reason for inefficiencies in

education policy.

- Whilst many countries have developed progressive and supportive policies to meet the needs for the future workforce, there is often a gap between the policy and how it is then implemented.
- Courageous leadership is needed by government and business leaders to navigate the fast-changing landscape of a future workforce and address future skills gaps. This may require unpopular decisions by governments.
- Whilst the political will may be present to introduce new technology and find innovating training methods, the required **infrastructure may be lacking**. This is especially the case in some of the most rural areas in the ASEAN region where a lack of good roads, electricity and internet connectivity mean that the necessary training and education cannot reach everyone. This will further increase the rural-urban divide as those in more remote areas do not receive the training needed to upskill them for future jobs.
- In order to overcome national challenges it will be vital to develop and build on successful national as well as international partnerships between governments, employers and educators. Working in partnership is hard but needs to be a priority.

Key recommendations

- Countries should collect an evidence base and establish a system to regularly find out what skills employers want. This could be done through the formation of an independent but government funded body, like UK Skills survey.
- Governments should act as catalysts to improve infrastructure and expand access to technology and training in more rural areas.
- The different stakeholders (students, parents, teachers, employers and government) need to be more joined up, with increased information and knowledge sharing including examples of best practice, especially in terms of correcting commonly held misperceptions.
- Partnerships between government, industry and educators can then ensure equitable distribution of training through new technology and blended learning.
- At a global level there needs to be continued collaboration across the ASEAN region in addition to building on the learnings from other countries such as the UK

What should education look like for the future workforce?

- With so many unknowns for the future world of work, Governments, Educators, Employers and Students need to be prepared to constantly revise and adapt learning and training.
- It is time to say goodbye to the idea of a “graduation” and instead call it “welcome to life-long learning”. As technology and the world of work will change quickly, individuals will need to be upskilling constantly to meet the changing demands of the workplace.
- There is also a need to meet individuals’ needs by providing opportunities for flexible learning. By viewing training as ‘juke box delivery’ it allows individuals to develop specific skills and take ownership of their own development.
- Technology can be a positive enabler for flexible learning especially through blended learning. Students who might live in more remote areas will need to have access to more training opportunities through innovations such as hologram teachers and video courses such as MOOCs.
- However, the role of face to face learning must not be forgotten as bringing people together to share ideas is a very powerful tool and especially important for developing soft skills.
- With employers asking for more soft skills, universities need to embed these further into courses, for example through greater focus on placements in industry as well as

developing interview skills and English language support.

- TVET routes need to be valued and mapped so they are seen as equal to academic routes. In the past some vocations such as being a chef were not well regarded. However, a change in image (perhaps due to celebrity chefs and popular TV shows) has changed peoples' perception of this career choice. In the UK a Skills Academy specific to the rail industry has been established, the National Skills Academy for Rail, which has mapped the TVET and academic routes via its 'Apprenticeship to Fellowship' programme. This means that students can seamlessly cross from one educational route to another in either direction. This approach could be useful for ASEAN countries.
- In order to successfully increase the popularity of STEM and TVET, the education system as a whole needs to be considered so that the awareness of these routes and subjects as well as a change in perception starts from early years education rather than waiting until Higher Education.
- Apprenticeships, if used successfully, are one way to foster a stronger link between relevant training and the workplace. The UK's rejuvenated apprenticeship scheme, including the introduction of an Employers Pay Levy system, is a useful example to share¹.
- Cambodia is championing apprenticeships, setting the target in its labour law of 10% of workers following apprenticeship schemes. However, once workers complete their apprenticeships they do not receive any higher salary and so there are few incentives (apart from a legal requirement) to promote this route.
- In Malaysia there are some tax incentives for employers to provide apprenticeships.
- There is currently not enough standardisation of skills across many industries. In the future workers will need to be more mobile. To enable this workers will need "portable qualifications" which are quality assured against globally recognised standards. This framework will provide a benchmark for training providers.

Key recommendations

- The perception of STEM and TVET needs to change so that students holding these qualifications appreciate they lead to "fun, cool, sexy and high paid" careers.
- Draw on successful examples from similar areas where perceptions and mind-sets have shifted, for example MasterChef TV programme. Or in Malaysia a programme run by Pearson to encourage girls into STEM subjects called "gorgeous girls".
- Develop common international standards for some professions to allow for 'portable qualifications'. This means that the professions become internationally recognised and with appropriate quality assurance, allowing the flow of skills around the world. ASEAN could work towards building a common accredited skills curriculum and competencies for some professions.

Who is responsible for preparing the future workforce?

Governments

- A balanced approach is needed so that governments act as regulators, ensuring industries and trainers comply with rules, whilst supporting innovations. Governments need to be a stabilising influence and create space for employers to be catalysts for change.
- There is also a tension between the short term nature of politics and the commercial needs of industry. This means that constantly changing policies and structures prevent sustainable long term planning.
- The Philippines are dismantling any stigma around TVET through creating a qualifications framework that links together basic education, skills education and higher

¹ <https://www.gov.uk/topic/further-education-skills/apprenticeships>

education. This maps out TVET as a career path and raises its status. [TESDA](#) (Technical Education Skills Development Authority) have a two pronged strategy to poverty reduction which recognises the role of TVET for both social equity and for global competitiveness.

- Governments can encourage international partnerships to boost the quality of higher education. The [British Council Global Gauge](#) provides an assessment of the openness of higher education policy's to international partnerships. Malaysia is ranked "very high" and Indonesia, Thailand, Philippines and Vietnam are ranked "high" overall across measures looking at openness, quality assurance and recognition and access and sustainability.

Employers

- Business needs to engage with both schools and universities to ensure that the profile of STEM and TVET are raised and also to start this process as early as possible in schools.
- However, the majority of businesses are SMEs which makes it harder for them to commit the required time and resources to do this. It also creates challenges for how governments and universities reach out to and work with smaller businesses.
- Employers have a key role to play in lifelong learning and upskilling their workers. This should not be limited to providing training as part of Higher Education but should include ongoing training for the whole workforce such as mid-careerists and part-time workers
- Some countries, for example UK and Malaysia, have training levies which mandates employers to invest in training their workers.
- In Vietnam, there are examples of industries setting up laboratories within the universities. This means that students can engage with the world of work whilst employers can provide more bespoke training for possible future employees.
- In Malaysia, industry CEOs work closely with universities to support curriculum design to ensure it is relevant to the needs of industry and future employers.

Universities/Education and training providers

- Higher Education (HE) providers need to create and communicate clear career pathways. One example is Brunei which underwent a transformation of technical education in 2014 where 5 technical colleges were brought together under 1 umbrella which created a career path for entrepreneurship.
- Some countries have opened up their international higher education sector. Germany and Malaysia have been ranked as "top performers" according to a recent British Council research report which considered quality assurance and degree recognition alongside access and sustainability in international higher education.
- The role of universities in creating "work-ready" graduates was questioned. Whilst it was acknowledged that students need to gain knowledge, skills and soft skills to adapt to an ever-changing workforce, employers still have a part to play. Universities still expect employers to provide training for new recruits but need to work closely with employers to ensure that curriculum design and future training is joined up.
- University lecturers should spend more time in industry so that their skills and knowledge of the workplace remains current.

Parents

- There are many exciting new future jobs and training routes available that need to be clearly explained to parents by teachers, universities and employers.
- At the moment parents are keen for their children to become professionals such as accountants and lawyers and see vocational education as a second class education

choice for pupils that cannot achieve an academic education. Parents need to understand the skills their children may need to secure the jobs of the future so they can support their children to make the best educational choices based on their child's abilities and interests. If this cannot be achieved parents will be a big barrier to having more students follow a vocational route.

- The stigma attached to vocational and skills training needs to be removed so that parents are more open to their children exploring other education options and career choices.

Teachers and schools

- Many students will have greater knowledge and awareness of technology than their teachers. As the use of technology in classrooms increases the role of the teacher will shift even further towards that of an enabler and a facilitator.
- Teachers have a role to inspire and guide students to study STEM subjects. However, teachers may not have the confidence to teach these subjects and schools may not be able to offer these subjects due to a shortage of STEM teachers in some countries. This creates a vicious cycle.
- Teaching aids such as text books will need to be constantly updated to fit in with a dynamic and rapidly changing world. In Myanmar, as in many other countries, there is a programme to shift towards digital material, and especially with STEM content, across to mobile phones. This also allows a greater reach to students in more remote places who have mobile phones.
- Intensive training sessions for teachers can be effective to develop teachers' confidence in English and to use more engaging, learner-centred techniques. One example is the "[Teacher boot camp](#)" in Thailand run by the Ministry of Education in partnership with the British Council. It also included a "master-trainer" course for Thai teachers who demonstrated the appropriate skills for teaching English and being reflective practitioners.
- With an increased focus on STEM subjects, teachers and schools still need to recognise the importance of a well-rounded education that also supports the development of soft skills.
- There is also significant variation between education systems in their ability to respond to future changes and the skills needed. Teachers are at the heart of this and to achieve a top future workforce the best graduates and business people need to enter the teaching profession.
- This requires far more investment including higher salaries and recognition of the teaching profession's importance. One of the reasons students in Singapore and Finland are topping world rankings is because teachers in these countries command far higher salaries than in other countries.
- School pupils should also be given more guidance on subject choices, careers and future employment opportunities via more joint working and events between schools and businesses. Teachers also need to engage with parents to explain careers of the future.

Key recommendations

- **Governments:** have a strong role to play in setting the policy framework, encouraging collaboration with higher education and skills providers, and employers, and providing the infrastructure (such as electricity and roads) so that everyone is able to access training opportunities. Governments also need to address the rural-urban divide specifically.
- **Employers:** need to engage with schools earlier for example from the early years stage so that students are aware of different career paths. They also need to do more to engage with parents to raise the profile of new and exciting careers of the future which

will require students to take TVET routes or require STEM subjects.

- **Universities:** need to work more closely with industry leaders to design relevant curriculums. This may include extended placement years working in industry during the course. One example is Malaysia's Two Universities and Two Industries (2U2i) programme which started in 2016. Students learn for two years at a university and then gain work experience for 2 years in an industry to increase their employability.
- **Parents:** support their children to look at other alternative education routes, for example by attending school and industry career events.
- The global ranking system for universities still focuses on publications rather than considering the overall university experience and the relevance of the training for the future workplace. This needs to be given greater weighting in future rankings.
- To consider how government and teaching staff can gain more industry experience or work on a part-time basis to ensure up to date understanding of key issues.

Building partnerships

- Partnerships will be key to developing the workforce of the future in ASEAN and fulfilling the recommendations made during the meeting.
- Dialogue between Government Ministries, Education institutions, skills providers, industry, students and parents is critical to address the employment skills gap. Mechanisms need to be developed to enable this to happen.
- Particular focus will be needed to support STEM subjects in schools, and advocate and build TVET. This will need new and dynamic national, regional and international partnerships.
- Across ASEAN countries there is also an increasing desire and opportunity for collaboration to share knowledge and expertise to increase the skills of the future workforce.
- In addition, there are opportunities for an ASEAN-wide skills Academy to be created, to tailor- make programmes for the region.
- The UK has expertise and experience to offer through its higher education institutions and TVET providers and is willing to support ASEAN's skills development.
- This Forum can continue to support ASEAN collaboration by bringing together thought leaders from across the region to share knowledge, champion policy development and support implementation. There is already consensus and support to ensure this Forum continues.

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