



Saudi students attend a class at the Technology College in Riyadh on 30 October 2010.

Are Vocational and Applied Training the Same Thing in a GCC Context? *by Annamarie Lawrence*

Any new expatriate to the Gulf will sooner or later hear about the apparent “skills gap” among nationals. This gap has been the subject of many regional studies and forms the basis of a number of government policies. With many jobs being filled by expatriate labor instead of nationals, there are concerns about the long-term sustainability of the labor market model in the region.

In Bahrain, this skills gap was confirmed in 2010 by an extensive nationwide study.¹ General math, English-language and problem-solving skills were shown to be lacking among nationals. The education, healthcare, insurance, hospitality and manufacturing industries were some of the sectors specifically identified as suffering from skills shortages. For this reason, a number of reforms and initiatives were set up including the national agency Tamkeen, which is responsible for up-skilling Bahrainis through an elaborate training scheme.

Understanding vocational training

Vocational training tends to be understood as a career-focused education that one might traditionally find in a technical college or polytechnic.² While there are examples of the traditional apprenticeship model

in some fields such as pearl diving and engineering, we don't see Gulf nationals in the same breadth of trades common in vocational institutes in Western countries. In Europe, for example, vocational training generally includes trades as diverse as hairdressing, carpentry and plumbing.³ But it is apparent from government documents that no one is proposing these same trades be included in vocational education in the Gulf states.

What then do we mean by vocational training? Gulf governments talk about “work-ready graduates,” “21st century skills” and a closer alignment between higher education and the labor market. In fact, this is at the core of Bahrain's National Higher Education Strategy, the UAE's National Agenda and National Innovation Strategy and Qatar's National Education Strategy 2011-2016. But if “vocational” means ensuring graduates learn skills that are more closely-aligned with the job market, then governments should be looking at taking a specific policy approach focused on industry integration, applied learning and industry-led teaching. Borrowing policies and models designed within a Western context of vocational training might not be relevant to the Gulf.⁴

In the case of Bahrain's National Higher Education Strategy, there is little mention of vocational training. But it's apparent that the policy approach has been interpreted as embedding applied “21st century skills.” That's what the Skills for the Future program is modelled on, and it's one of six strategic areas of focus in the National Higher Education Strategy.

In 2014, the Higher Education Council initiated a detailed study to build upon the previous 2010 skills gap analysis and identify from employers what specific skills they felt were needed in their industries. The findings were presented in 2015 at a well-attended national industry and education forum, and all higher education intuitions were given a copy of the results.⁵ Since then, closer alignment between higher education and industry has been included by the Bahrain Authority for Quality and Training (BQA) as a measurement indicator. Modelled on international standards, BQA is responsible for quality assurance across Bahrain's higher education sector. Institutes are now required to justify all new course development decisions based on labor market needs—in particular the skills requirements outlined by the Higher Education Council's research.

Mode 2 knowledge and Bahrain Polytechnic

There is a theoretical basis for this needs-based approach. The 1994 book, *The New Production of Knowledge*, by Gibbons and his colleagues refers to “Mode 2” knowledge production, arguing that modern societies need a different type of expertise than what's traditionally taught in higher education institutes. Mode 2 knowledge is defined as knowledge that is developed in context of its application, is problem-solving oriented and provides immediate benefit to industry.⁶ It differs from traditional academic research, which is based on scientific exploration and a discipline-specific focus (called Mode 1 knowledge).

One of the key Mode 2-type initiatives in Bahrain was the establishment of Bahrain Polytechnic in 2008. Bahrain Polytechnic's institutional research indicated that diploma-level qualifications—normally associated with the trades—were viewed unfavorably by Bahraini parents, prospective students and industry. In turn, Bahrain Polytechnic embedded the vocational approach into its degree programs by ensuring work-integrated learning occurred at every level. So-called “employability skills” were embedded into all programs, in particular critical thinking, problem-solving, communication and IT skills. As most instructors had an industry background, programs were naturally more closely-aligned to industry practices. Instructors at the Polytechnic use a Problem-Based Learning pedagogical methodology, which has been

II. Analysis

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proven to enhance critical thinking among students.⁷ Industry case studies are also developed by teaching staff—often in partnership with industry—and then used as a teaching tool. Students take a diagnostic

approach, and then put a theoretical framework around their proposed solutions.

One example is the final semester-long industry project. Students act as consultants and are expected to solve a problem that would add value to industry. Following a professional project management methodology, students undertake an agreed upon problem and deliver a specific pre-agreed output. Industry partners that hosted these students have said they added significant value to their organizations.⁸ In addition, they benefited from the expertise of industry-experienced teaching staff who at the time were supervising participating students.

In the first semester, sourcing projects was a challenge. While many industry partners were experienced in offering traditional-style internships to students, the project approach was unprecedented at the time in Bahrain. This took lengthy engagement with industry—either by teaching or industry liaison staff—in order to get them on board. It took close collaboration between teaching staff and industry to ensure the project approach was consistent and the students were able to meet the agreed upon deliverables. With seven batches of students having now completed their industry project, sourcing the projects has become a lot easier. The good reputation of the Polytechnic and the industry project program means that demand for students now outweighs the number of spots available.

It's apparent that the “Bahraini” model of vocational education found at Bahrain Polytechnic has been a success. The quality of Bahrain Polytechnic graduates has received significant acclaim from many industry leaders, the minister of education and international education experts. Compared to the national average, research has also demonstrated a high rate of employment for fresh graduates.⁹ This success highlights the value of Mode 2 knowledge production in the Gulf context.

Lessons learned

One of the key factors underpinning the Polytechnic's success is that it was created in response to specific labor market needs and done in consultation with employers. This deliberate alignment has provided a model for vocational education in Bahrain, and how higher education and industry can work together to further national economic development. The lessons learned from the Bahrain Polytechnic model can apply to the wider Gulf region.

So whether it's called “applied learning,” “Mode 2 knowledge production,” “professional education” or “vocational training,” it's clear that there is a lot to be gained when knowledge producers and users work together to make sure the needs of both students and the labor market are met.

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- ¹ Donn, Gari and Yahya Al Manthri. *Globalisation and Higher Education in the Arab Gulf States*. (Oxford: Symposium Books, 2010).
- ² Marope, P.T.M., Chakroun, B., and Holmes, K.P. *Unleashing the Potential: Transforming Technical and Vocational Education and Training*. (UNESCO Publishing, Paris, 2015).
- ³ “Rethinking Education: Investing in skills for better socio-economic outcomes.” European Commission, Strasbourg, 2012.
- ⁴ Donn, Gari and Yahya Al Manthri, *Globalisation and Higher Education in the Arab Gulf States*.
- ⁵ “Industry and Employers Graduate Skills Requirements.” Presentation at the Higher Education Council, city, country, date, 2015.
- ⁶ Leydesdorff, Loet. “The Triple Helix, Quadruple Helix, . . . , and an N-Tuple of Helices: Explanatory Models for Analyzing the Knowledge-Based Economy?” *Journal of Knowledge Economy*3 (2012): 25–35.
- ⁷ Dochy, Filip, Segers, Mien, Van den Bossche, Piet, and David Gijbels. “Effects of Problem-Based Learning: A Meta-Analysis From the Angle Assessment.” *Learning and Instruction*13 (2003): 533–568.
- ⁸ Lawrence, A. “Bahrain Polytechnic Business School Industry Based Projects: Views from industry.” Presentation at the Bahrain Polytechnic Business School, Manama, Bahrain, 2016.
- ⁹ “Alumni Project Report.” Bahrain Polytechnic, Bahrain, 2014.