



The TVET Industry Centre

Promising Practice

Implemented by: Shaanxi Polytechnic Institute (SXPI)

Where: China

Status: Ongoing since July 2010

Summary: The unique blend of teaching and learning at the TVET Industry Centre provides an authentic workplace experience, enhances “onsite diagnosis” and offers close collaboration between China and Japan.

Overview

Shaanxi Polytechnic Institute (SXPI) was founded in 1950 and provides a three-year college diploma for its more than 22,000 on-campus students. SXPI provides 65 specialties including Equipment Manufacturing, Electronics and Electrical Engineering, Mechanical Engineering, Information Technology, Business Administration, Public Service, Automotive Technology, Logistics, Civil Works, Textile and Clothing Arts.

Description

Bridging the gap between education supply and industry demand

An adaptable, highly skilled and knowledgeable workforce is needed to meet the competitive challenges of an increasingly global economy. The Ministry of Education in China has developed TVET policies encouraging institutions to deliver outcomes-driven learning that provides students with the foundational competencies to successfully participate in the workforce. A critical component of these initiatives is institute – industry collaboration and their joint commitment to workforce development. The aim of these centres is to develop work-ready graduates bridging the gap between institutional education supply and industry demand.

Collaborating with Omron Corporation

In 2010, SXPI initiated discussion with Omron Corporation, a Japanese multi-national company, where two key drivers emerged. First, Omron needed to be assured that graduates from the centre would achieve the core standards and competencies required and be familiar with their workplace culture. Second, SXPI needed to be better able to respond efficiently and effectively to industry demand.

Setting up the training centre

SXPI teachers and Omron trainers co-developed a suite of educational programmes focused on the knowledge, skills and competencies associated with Omron's 5S standards - Seiri, Seiton, Seiso, Seiketsu, Shitsuke. These 5S standards underpin the "spirit" of the Japanese entrepreneurial management approach. Following this, a training centre was established within the institute for over 1000 students. After completing the training, students are equipped with the necessary skills for employment in Omron branch companies in China or to other companies in the Xi'an area.

Objectives

The objective of the initiative was to create a centre which would replicate both industry and vocational training and provide close links between the Japanese electronics company, Omron, and the education institution, SXPI, in a way that brings cooperation, world class teaching practices, industrial know-how, developmental principles, problem-solving skills and the ability to be able to identify areas for growth and knowledge for future generations of students. This centre provides:

- Learners with core knowledge, skills and attitudes required by industry;
- SXPI teachers with an authentic experience in industry approaches to vocational training while enabling Omron trainers to gain insight into authentic experiences in vocational education; and
- Graduates with identified pathways to employment and further study.

A mismatch between the graduates' knowledge, skills, and competencies and industry demands was noticed. SXPI wanted to ensure that its students graduated with professional skills and that they were ready for the world of work, instead of requiring continuous upskilling at the place of work as this comes at a cost for the employers and industry in general.



Students participating in practical training at the TVET Industry Centre

Equipping students with the necessary knowledge, skills and competencies for employment

Two outcomes were identified. Firstly, the programme broadens the student's international vision by ensuring that they become familiar with the Japanese language and learning about the cultural aspects and society in another country. Secondly, entrepreneurial learning is incorporated and integrated into SXPI's teaching and training practices, ensuring that students have a high level of work-ready soft skills, such as the ability to communicate effectively, be able to work within a team, as well as critical thinking and problem solving.

Through the creation and development of a close industry-institution relationship between SXPI and Omron, the design, development, assessment and delivery of teaching and learning activities, supported by and facilitated through government policy, allows these outcomes to be achieved.

Outcomes and impact

The joint Omron-SXPI training centre has identified both short-term and long-term outcomes. In the short-term, it enables Omron to use its full range of technical skills, knowledge, and training packages so that SXPI students and teachers use learning activities and a holistic approach. Omron and SXPI have jointly developed 13 customized programmes in quality management, production processes, quality improvement, equipment management and other areas. They have also established educational scholarships for learners who wish to study at the centre and in Japan. In the longer time frame, more professional development programmes for educational leaders in the establishment of Industry Training Centres will be launched together with greater exposure of teachers to overseas establishments. Ultimately, the close relationship that will evolve ensures that continuous quality improvement will be built into any programme that is developed by the training centre.

The major points that highlight the impact of the initiative are:

- The establishment of centres, jointly managed by industry and the institution, will ensure that a consistent approach and the necessary standardization in teaching and training are achieved.
- Teachers and learners will benefit and learn from the experience gained in the centres. By enabling students to have a key role in the development of programmes, they will become well-rounded and better qualified.

- The impact of assessments will result in evidence-based practices that lead to quality improvement, in particular within industrial practices. To date, there are 976 skilled graduates from the SXPI-Omron training centre that have been directly employed by Omron.

Challenges

Bridging the gap between national and regional governments

The main challenges that the company and institution faced were the mechanisms and systems of TVET both at national and regional level. These needed changes due to the gap between what the students knew and what they were capable of doing. This was addressed through the national government's commitment to establish regional training centres which would bridge the gap between national and regional governments.

Adapting the teaching material for SXPI

Another challenge was that the training and teaching material was very much 'Omron-based' for those who worked in the company but not for students without experience. This challenge was overcome by establishing a Programme Officer to work collaboratively with Omron to redesign material. This helped to meet the needs of the students as well as training and teaching staff.

Preparing students for employment

Another challenge was the initial lack of support needed to ensure that students would be 'work-ready' and competent to join any large company. Students wanted to study in the centre, but the main employment option for them was in another province some 1000 km away. This challenge was addressed through a Career Planning Training Programme to enhance the students' awareness of employment opportunities while the company employed an advisor to take charge of the day-to-day management of their corporate identity.

Insights

Industry requires its workforce from TVET institutions to be “work-ready”. Traditional methods of teaching and learning are now being challenged with a curriculum based on enterprise. Centres should be created using identified, replicable workable plans that deliver quality vocational education. The SXPI-Omron Centre clearly defines the specific roles and responsibilities of all participants involved and its success has been demonstrated by the quality of the students completing the programme. The knowledge, skills and attitudes of trainers, teachers and students has matured significantly resulting in the enhanced profile of the company and SXPI in Japan and China. The key to overcoming existing challenges is the working relationship between the TVET institution and the collaborating company.

Next steps

This initiative will continue by setting standards that the company and institution wanted from the start, where every Omron student commits to the spirit of the 5S standards of Seiri, Seiton, Seiso, Seiketsu and Shitsuke. This means that graduate students can move from centre to centre and be properly upskilled and competent, irrespective of where they studied.

Learn more

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