

Promoting Digital Transformation in Technical and Vocational Education and Training (TVET)

Programme “Reform of TVET in Viet Nam”

Context

The Digital Transformation (DX) has become an inevitable trend and triggers comprehensive changes in organisations and in everyday life. An increasingly digital environment creates new ways of working, communicating and living. The Vietnamese Government therefore attaches great importance to DX in government, society and economy. Due to impacts of the changing world of work, the 4th Industrial Revolution (Industry 4.0), the increased autonomy and competitiveness in education and training, and more recently, the COVID-19 pandemic, vocational training urgently needs DX to become more flexible, open, adaptive and responsive.

Viet Nam currently has 56 million people in the working age, but only 26% of the workforce has a professional qualification (General Statistics Office 2021). The TVET system in Viet Nam is providing training for 2.2 million learners per year. Meanwhile, the Directorate of Vocational Education and Training (DVET) under the Vietnamese Ministry of Labour, Invalids and Social Affairs forecasts a significant increase in the demand for vocationally trained workers in the coming years, especially for highly skilled workers.

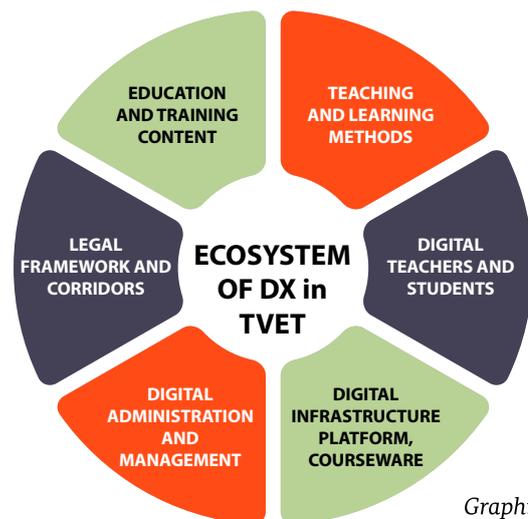
The given context shows great needs, opportunities, and potentials that DX can bring to TVET in Viet Nam. Scaling up TVET training can be achieved through digital platform solutions such as digital learning offers and open educational resources. Big data, artificial intelligence, internet of things, and cloud solutions will form a strong foundation for digital governance and administration of TVET. They can be a basis for online or blended teaching and learning activities as well as learning analytics to inform TVET policies, innovation of training contents and student services.

Approach

The Programme “Reform of TVET in Viet Nam”, is financed by the German Ministry for Economic Cooperation and Development (BMZ) and implemented by Deutsche Gesellschaft fuer Internationale Zusammenarbeit (GIZ) together with the Vietnamese Directorate of Vocational Education and Training (DVET). It promotes a holistic and comprehensive approach to DX in TVET by adopting the DX ecosystem. The DX ecosystem has six key components including 1) training contents adapted to Industry 4.0, 2) digital teaching and learning methods, 3) digital teachers, trainers and students, 4) digital infrastructure, platforms and learning resources, 5) digital administration and management, and 6) the regulatory framework that enables DX. These components are interconnected and closely aligned with each other. The DX process encourages the involvement of relevant key stakeholders, including leaders, managers, staff, teachers, in-company trainers, students, and workers from TVET management organizations, colleges, enterprises, and professional associations.

At the macro level, the Programme supports DVET, eleven partner TVET colleges and other relevant stakeholders with strategic and policy advice on DX. The Programme provides capacity development for senior leaders, line managers and other TVET stakeholders. These activities are based on results of scientific research and fact-finding missions. The Programme will also further support DVET for the development of an Open Educational Resources (OER) platform, a policy review on DX, the improvement of the regulatory framework on distance training, and the promotion of e-teaching through a national competition for TVET teachers.

Ecosystem of DX in TVET supported by TVET Programme



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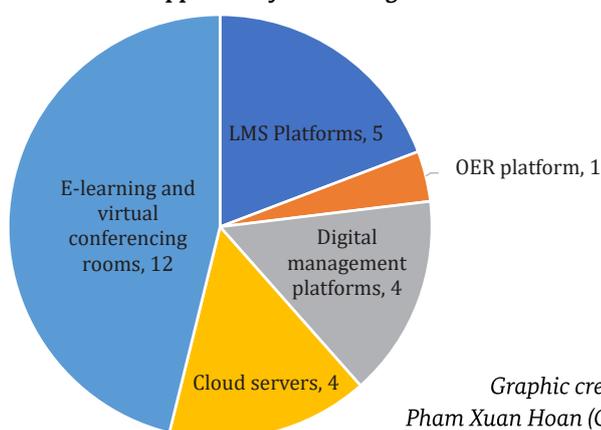
At the meso level, the Programme promotes the involvement of representatives from provincial authorities, Sector Skills Councils, Provincial TVET Councils, as well as industry associations in the DX process in TVET. These key stakeholders play a critical role in contributing to the six DX components, especially training contents, the regulatory framework, digital administration and management of TVET.

At the micro-level, the Programme provides partner TVET institutes and enterprises with direct advice on developing DX strategies, updating training programmes based on the needs of DX, and developing and implementing digitally supported training programmes. Capacity development activities focus on managers, taskforces, key teachers as multipliers at TVET institutes and in-company trainers to raise their awareness of DX, and improve digital literacy, e-pedagogy, and blended learning methods. To promote digital solutions, TVET partners are supported with the development of digital management platforms, learning management systems (LMS), cloud servers and digital equipment and software to establish e-learning rooms.

Results

Since September 2020, the Programme has conducted fact finding visits to 16 TVET institutes to investigate the status of DX and to raise awareness of and provide initial advice on DX. Furthermore, the Programme has successfully conducted a study on the status of DX for the TVET system in Viet Nam, which received almost 20,000 survey responses from DVET, 17 provincial Departments of Labour, Invalids and Social Affairs (DoLISAs) and 123 TVET institutions. In addition, a policy review on DX and a study on distance learning were implemented. To promote digital learning resources, the Programme conducted a pre-feasibility study on the development of an OER platform for eleven partner TVET institutes. As a result, DVET and the partner TVET colleges have used research-based evidence for developing DX strategies during the period 2021-2025 with vision to 2030. The six components of the DX ecosystem form the structure of those strategies which significantly contributes to a holistic approach of DX in the whole TVET sector. Results of the policy review not only show a systematic view of the regulatory framework, but also recommendations of critical policy gaps to enable DX in TVET.

Digital Solutions supported by TVET Programme

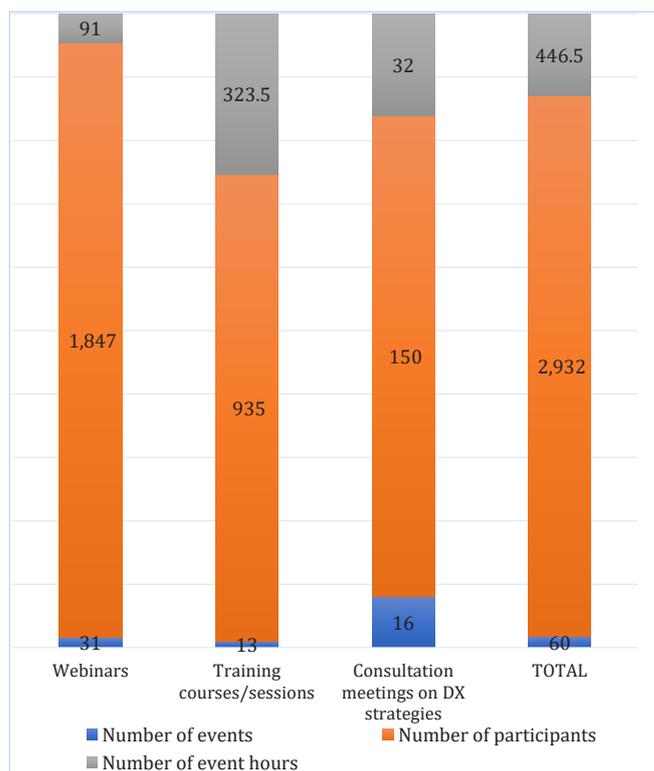


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In the area of capacity development, various forms of supported activities including workshops, training, group discussion, and strategic meetings have been implemented. Two intensive training workshops were organized to equip 160 senior leaders, rectors, key managers and DX taskforces from DVET and TVET institutes with a strong knowledge foundation and common approaches of DX in TVET. To support practice-based training for multipliers, five intensive training courses were conducted to qualify more than 100 core teachers in OER, 48 multipliers in e-pedagogies, 913 TVET teachers and IT staff in how to use LMS platforms (Atingi, Moodle). To raise awareness of DX and digital literacy, more than 30 workshops and group discussions were held for over 1.800 managers, teachers and staff from partner TVET organizations. International experts (Digital Ambassadors) advise and deliver training courses in digital literacy and e-pedagogies for teachers and staff from TVET colleges.

Regarding digital infrastructure, platforms and learning resources, partner TVET colleges have been supported with LMSs, digital management platforms and access to cloud servers. The development of DVET's operated OER platform has been completed. The Programme provided digital equipment and specialized software for the establishments of a modern virtual conference room for DVET and eleven e-learning rooms for TVET colleges. These e-learning rooms serve fundamental functions of producing digital teaching and learning resources, fostering technical exchange and knowledge transfer, initiating teaching and learning innovation, and promoting communication among DVET and TVET colleges and their partners.

DX events in 2021 supported by TVET Programme



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