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## **TVET@Asia Issue 13: Dual TVET systems, Employer Engagement and Modern Apprenticeship Schemes**

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The development of Technical and Vocational Education and Training (TVET) systems in Asia and worldwide increasingly aims at strengthening the cooperation between the formal TVET system, which is often represented by state-run vocational schools and colleges, and employers, who provide work-based learning at the in-company workplace, which is sometimes enhanced through work-oriented learning in practical training centers. Hence, the Dual System acts as a kind of meta-concept for the practical implementation of a variety of practical and systemic related programs in the TVET sector such as the new apprenticeship program that gained attention in recent years. As a consequence many different kinds of dual systems were established across countries, which sometimes even differ within one country as it is the case in Germany for example.

The common ground is that dualized systems facilitate an improved transition from school to work from the learners' perspective and an increased labor-market orientation from which the employers benefit. Learning and working are combined in one program, which includes more practice-oriented than traditional school-based learning settings and, therefore, provide a broader qualification than sole Skills Development programs that often mainly address the utilitarian interest of economy through short term trainings.

Dualization of TVET systems is a trend that even has entered Higher Education where the number of offered dual study programs is steadily increasing. This variety of existing dualized approaches in TVET and in Higher Education is raising quality of work and, therefore, its attractiveness; despite the systemic obstacles that follow the decision to introduce and to enhance the dualization of TVET systems such as the involvement of multiple stakeholders. Stakeholder involvement on a broad basis creates broad societal acceptance and lays a basis for sustaining the development. Internationally, most TVET systems appear to be challenged by the question of how to enhance employer engagement.

In order to contribute to the international discussion about Dual TVET, the dualization of TVET or programs in Higher Education and enhancement of employer engagement, based on research findings, best-praxis examples, educational philosophies and policies, Issue 13 of TVET@Asia is addressing arising challenges and sharing research results and best-practice examples in nine articles.

LUI CHEN, ZHIQUN ZHAO from Beijing Normal University & YUCI CHEN SKILL from the Internet of Things Association of Guangdong Province discuss a Chinese model of modern apprenticeship to address skill shortage. This includes development and status of modern apprenticeship with Chinese characteristics as well as the presentation of a case study and suggestions for future developments. SRI SUBJEKTI, ANA A, MOKHAMAD SYAOM BARLIANA, INDAH KHOERUNNISA, VINA DWIYANTI & SARAPUDIN S from

Universitas Pendidikan Indonesia deal with another way to increase employability skills by implementing a work-based learning-teaching factory. They focused on the development of employability skills in vocational high school students based on three types, namely communication, problem-solving and teamwork and how they can be obtained.

GEORG SPÖTTL & SVEN SCHULTE analyse whether the German dual TVET system and other European countries are prepared to face the challenges arising from Digitalization and Industry 4.0 in terms of a reorganization process of all industrial activities due to new options for communication, triggered by the Internet of Things, and b) a massive change of private living conditions influenced by an extensive use of Cyber-Physical-Systems (CPS).

Furthermore, NURSHADA MOHAMAD SARI, MOHD SAFIEE IDRIS & LATIFAH MD ARIFFIN from the University Tun Hussein Onn Malaysia reflect on the potential of dual TVET System Players in co-curricular activities - previously known as extracurriculum. A survey was conducted to identify the potential of dual TVET system players and their perception towards the potential of co-curricular activity and focused on four aspects that include the attendance, position held, involvement, and achievement.

XUAN TIEN VO from University of Technology and Education Ho Chi Minh City presents examples of companies in Vietnam that have implemented In-house-training or training at work for a short period of time, conducted right after recruitment and directly at the workplace, which tend to focus on functionality. TVET institutions in Vietnam built their training courses based on their perceptions of necessary skills and knowledge (without conducting the employers' skills demand). Therefore, his research findings reflect on actual state of the Vietnamese TVET and the concern about the development of curricula in Vietnam. FELINO JAVINES JR. & CRISTI ANN JACA from University of San Carlos, Philippines also conducted a study that aims to analyze the development and implementation of national standards for TVET personnel in the Philippine context towards the Development of Regional TVET Teacher Standard.

CHANDRASEKAR B & R MURUGESAN study attempts to review TVET, training systems and skills development systems by analyzing the structure of TVET related institutions. This includes a review of policy issues, best practice models for an enabling a systemic approach for skills training and vocational and technical education relevant for a nation like India.

VLADIMIR BLINOV & EKATERINA ESENINA from the Federal Institute for Development of Education discuss a project of the Agency for Strategic Initiatives (ASI) and best-practice examples of dual VET in Russia after 2016 and also include recommendations for further development. Another dual VET system has developed in Peru since 1985 referred to as SENATI dual learning program which is industry led and includes two learning venues is presented by ENRIQUE ANGLES & HANS-JÜRGEN LINDEMANN. Moreover, they introduce their new research project "Peru Dual" which will examine the factors that have led to a sustainable successful cooperation.

Thank you all for your contribution.

We hope Issue 13 will provide you with many relevant information and you enjoy reading it!

*The editors of Issue 13*

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