

Sven Schulte (TU Dortmund University), **Niwat Moonpa** (Rajamangala University of Technology Lanna), **Lai Chee Sern** (Universiti Tun Hussein Onn Malaysia), **Siriphorn Phalasoorn** (TU Dortmund University)

Editorial TVET@Asia Issue 15:

TVET research as a central factor for the development of TVET systems

TVET research is an essential factor in the development of TVET systems. Research provides information and advice on TVET policy depending on the needs, focusses and research areas. In addition, TVET research contributes to innovation and the transfer of knowledge in cooperation with TVET practitioners. TVET research always has to take the changes in work and the analysis and design of vocational education and training as well as qualification and learning processes into consideration. Thus, TVET research aims to contribute to the further development of the vocational education and training system.

Despite the relevance of TVET for social and economic development worldwide, the international TVET research community is at the beginning and still has much potential for development. International TVET research also presents itself to be an interdisciplinary approach and addresses a wide range of issues and development tasks at various levels.

The current issues stresses the importance of an international established community and discipline of TVET research. The main task of this research discipline is based on analyzing the situation of the TVET system within the country in order to come to evidence-based conclusions for development processes and reform steps. Malaysia is one example in the ASEAN-region for the impact and success of an established TVET research discipline for the enhancement of their education system (especially for TVET). The following topics can be identified as central challenges for TVET research: first, the methodological-empirical approaches of vocational training research; second, the integration of the results into the advisory services for vocational training policy and finally the establishment of corresponding research competences and structures within and outside the universities. As an interdisciplinary approach, VET research is thus active at various levels, from the macro-level (e.g. conducting and shaping the VET system), the meso level (e.g. the organization of VET courses and institutions) and the micro level (e.g. the analysis and design of education and learning processes).

The present 15th Issue of TVET@Asia links to some of the conference's major topics. It comprises five excellent papers addressing a range of the most relevant topics regarding various approaches to TVET research as a central condition for the development of international TVET systems. These papers offer different theoretical settings of work-based learning, concepts of trainings for specific target groups and various approaches of evaluating the current developments of enhancing the TVET system within the countries. The following authors and topics present the potentials of TVET research:

LEE MING FOONG, TEE TZE KIONG, MARINA IBRAHIM MUKHTAR, JAILANI MD

YUNOS and MAIZAM ALIAS (Universiti Tun Hussein Onn Malaysia, Malaysia) are exploring the practice of vocational pedagogies among the engineering TVET teachers in Malaysia. By using a cross-sectional survey, the paper describes different teaching strategies of engineering TVET teachers when conducting the teaching and learning session for theory, practical and drawing. Based on the findings, a framework was developed to provide basic vocation pedagogy approaches among Malaysian engineering TVET teachers.

SUREEWAN RAJCHASOM, KANYAPORN CHAIWONG and KITJANAT TANGJITNUSORN (Rajmangala University of Technology Lanna) put the focus of research on the determination of Program Learning Outcomes (PLOs) based on the Work Process learning concept in the field of bio-fuel industry. Specifically, the authors conducted a case study in which a total of 13 students were involved in work-integrated learning program under the program of Bachelor Degree in Agricultural and Biological Engineering. The PLOs were formulated in accordance to the manufacturing processes of a palm oil company. The case study has identified six PLOs that fulfill the ability and skills required in the entire work process, such as maintenance management, engineering design, and engineering problem solving.

SAMIKSHA NEROORKAR & PERUMULA GOPINATH (Tata Institute of Social Sciences) are clarifying on the concept and components of employability and the factors that can effectively enhance the employability of vocational graduates in India. The paper describes a conceptual framework to understand and analyze the employability of Indian vocational graduates. By using qualitative data collection, which includes interviews, focus group discussions, questionnaires and anecdotal data logs, the framework for employability suitable for Indian VET graduates was developed. This framework consists of four components - individual factors, personal circumstances, external factors and institutional factors.

WAN HANIM NADRAH BINTI WAN MUDA, PUTERI NUR IZAZI BINTI BURHANUDDIN, MOHD HAFIZUL HANIF BIN RAMLEE, and FAZLINDA BINTI AB HALIM (Universiti Tun Hussein Onn Malaysia, Malaysia) are describing a study that is focusing on identifying the relationship between the level of soft skills and the employability of the graduates at the Universiti Tun Hussein Onn Malaysia. The paper addresses the challenge of describing employability, which consists not only by academic or occupational skills, but also includes (even more for the country and target group mentioned in the paper) soft or social skills. By applying a quantitative questionnaire, the authors are examining the relationship between soft skills and employability among the UTHM engineering graduates. The findings show and interpret different social skills and their statistical correlation to the concept of employability. Finally, the conclusion shows how the issue of reaching employability by developing soft skills by university courses explains the behavior and objectives of engineering graduates.

GOUHAR PIRZADA (STEP Skills Development Foundation, Pakistan) is evaluating the progress and effect of a TVET Sector Support Program in Pakistan, focusing on a capacity-building by establishing a training for Human Resource Managers and TVET School principals. The paper describes a research study in order to identify success factors for the training and furthermore to analyze the impact of global trends (UNESCO Sustainable Development Goals) to the learning content/concept of the training. The results lead to

recommendations for the policy level to enhance the approach and the learning effects of the training. The results of the questionnaire used for the evaluation are indicating further needs for connecting the global perspectives (although they are acknowledged as very important) with regional demands for training. The interesting discussion shows how the author is recommending further steps for researching the learning effects and the level of acceptance of this training in more details.

All together, the papers are focusing on the countries of Thailand, Malaysia, India, and Pakistan so far. Thus, Issue 15 is showing some best-practices of TVET research activities that could be a starting point for further activities and for exchange of knowledge and experience through the well-established TVET@Asia community!

A very big thank you to all contributors – wishing you all great reading pleasure!

The editors of Issue 15

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