

Conference

on

“Digitalization and TVET”: Requirements and Approaches for Competence Development of TVET personnel (Managing Staff and Teaching Staff) in International and Development Cooperation

Background

Digitalization transforms economies and societies and triggers new policy challenges. Information and Communication Technologies (ICT), Artificial Intelligence (AI) and robotics are profoundly changing the world of work and the way people work and interact with one another. The preparedness of countries to seize the benefits of digital transformation is largely dependent on the acceptance and on the skills of their workforce and the range of appropriate policies put in place, along with skills-related policies as a cornerstone (*OECD, Skills Outlook 2019*).

Digitalization is reshaping millions of jobs globally, with digital technologies widely used in the workplace. Changing ways of work organizations are supporting the transformation process. Preparing learners for the rapidly changing digital world requires regular updates of curricula and training regulations to cover new skills and competences, as well as adjustments in the way these are taught. Accordingly, TVET teaching staff must be aware of new and evolving digital trends and tools and must also be able to effectively teach them to students, as they are preparing to enter the workforce of the future (UNESCO-UNEVOC).

Many teachers do not have the appropriate level of digital knowledge and digital skills. This has a direct impact on the potential of digitalized equipment in TVET to take root in curricula and classrooms. Teachers' digital knowledge and skills are a key limiting factor in the development of digitalization in TVET. Digitalizing TVET requires a broad range of professionals to be involved in its creation and shaping provision. It is necessary to overcome the domain of lone (even isolated) professionals attempting to provide high-quality digital TVET on their own because their efforts are unlikely to be effective or sustainable.

When implementing the national training programs offered to teachers, facilitators or supervisors, coordination and collaboration between the professionals working in the TVET sector must be ensured.

Didactical training on delivery, assessment, certification and work-process-based curriculum and continuous improvement of trainers needs to be established. Industry experience of teachers and trainers would help to develop vocational competences that are required by the industry. To ensure this, the training of TVET teachers and trainers must include the opportunity to gain experience in the industry.

The Covid pandemic created a global awareness of the need for digitalization and caused some upsurge in distance education approaches. At the same time, it became clear that due to the limitations of teachers in vocational education and related fields, there is a need to develop subject-related competences and implement appropriate approaches in the education and training of teachers.

Questions such as “What does it take to build high-quality TVET systems for an increasingly digitalized world of work?” were discussed in a GIZ Webinar in February 2021.

In one of the sessions aspects of demands of competence development of TVET personnel related to digitalization were intensively discussed.

A key outcome from this session was that unless there will be significant investments in the improvement of teacher quality, there will be no big payoff from integrating digital technology in TVET programs. A holistic approach that encompasses subject specific, vocational pedagogical, digital as well as transversal competences was seen as crucial.

In terms of the planned series of conferences/experts meetings and workshops, a holistic approach should encompass the “Change of Work” and “Future Expectations”, the “Chances of Shaping of Work” and “Future Requirements for TVET” with a focus on the development of subject specific and broad competences. The broad competences cover vocational and transversal competences and competences in operating with digital media by taking existing diverse pre- and frame conditions in national and regional dimensions into account. These plans must not only consider economic developments but also make them the central object of competence development.

A special role is given to representatives and "practitioners" of the industry. Thereby it is ensured that recommendations for TVET teacher training are developed that will also find acceptance among those who employ skilled workers who are trained in TVET. Nevertheless, the theoretical requirements for TVET teacher training are not neglected.

It is a common understanding that further deepening of investigations and exchange of experiences seems to be relevant for identifying strategies and implementation approaches for learning and teaching to develop appropriate competences of TVET personnel as a key enabling factor for transformation of TVET towards digitalization of work, production, economy and society. Based on findings as described in expected outcomes below projects, clients and partners in international TVET cooperation can be served in defining and implementing appropriate approaches for capacity and competence development as well as in initiating peer networks, etc.

Against that background the GIZ TVET Academy, the Sector Programme TVET, and the Competence Center Education, Vocational Education and Labour Markets agreed to take the initiative to continue further activities together with partners of the international development cooperation and TVET community for an exchange of demands and consequences of digitalization on the development of competences of TVET personnel.

Asian Development Bank (ADB), International Labour Organization (ILO) and the Swiss Federal University for Vocational Education and Training (SFUVET) agreed to join this initiative and contribute as co-organizers in preparation and implementation of related events.

Objectives

- Derivation of impacts in competence requirements of workforce in economy, production, work and business processes from digitalization
- Derivation of consequences in TVET teaching and management processes because of the changes in work and work organization caused by digitalization
- Clarification of competence requirements of teachers and trainers due to the changes in industry driven by digitalization
- Development of ideas and proposals for competence and capacity development for TVET personnel towards (pre- and in-service) education and training
- Initiation of exchange on existing approaches, developments and solutions regarding adjusting pre- and in-service training of TVET personnel with focus on digitalization

Audience / Target Group

- Representatives / Staff of Development Agencies, Development Banks
- Stakeholder of TVET institutions, related organizations and authorities of partner countries
- Representatives of TVET projects
- Representatives of TVET teacher institutions
- Representatives of business sector
- Representatives from international organizations, e.g. UNESCO-UNEVOC, ADB, ILO

Format / Structure

- Online Conference (Kick Off)
- Parallel online workshops
- Concluding session

Expected Outcomes

- Recommendations for development of TVET teacher training in a digitalized world of work, appropriate to the demand of the business sector
- Distribution of collected didactical concepts of TVET teaching in a digitalized world of work
- Collection of materials for training and training concepts for the implementation of digitalization in TVET
- Case descriptions for best practice approaches and models of pre- and in-service TVET teacher training by consideration of digitalization
- Recommendations for pre- and in-service training approaches for TVET teachers
- Tool Box(es), Materials
- Recommendations for strategies for the support of lower developed countries in integration of digitalization in TVET and skills development

Timeline

- Kickoff: Begin of September 2021 (September 8, 2021)
- Parallel Workshops: Mid. of October 2021 (October 19, 2021)
- Session on Final Conclusion / Presentation of Recommendations (Mid. of November / tentative)

Kick-off Conference

Digitalization is a „software-driven technology“ with an impact on all business areas as well as on private and individual communication and collaboration. One of the main consequences for the industry is the change of work-processes and business-processes leading areas such as production processes towards completely changed work requirements. The consequences for the labor market and for education and training have not yet conclusively been clarified and are still under deep discussion. The focus on the different argumentations is at a higher level with the main interest to make relevant labor market trends visible. Answers for TVET are not yet considered in these discussions. Efforts must be initiated to identify the impact and the changes relevant for TVET-approaches in order to prepare the workers-to-be for the new framework of work in changing work environments.

Panel Discussion

Based on the overall discussion of changes of work and labor market movements which have focused on TVET since several years, thoughts are now developed based on the following questions:

- How should TVET teachers be trained in the digital age?
- Is there a need to adapt curricula and training contents – which processes would support that?
- Are didactical concepts and training methods available which respond to the changing competence requirements caused by digitalization?
- Which role do digital resources play in the process of modernizing TVET?
- Do new co-operation mechanisms in terms of learning and training venues become more relevant of digitalization?

These questions underpin the need for fundamental work on different levels such as research, curriculum work, political units, media, companies, teacher training, management training in order to find convincing and sustainable answers for the direction of future TVET activities. The requirement to focus on a holistic concept of competence development needs to be specified to ensure the transfer to the working day routines of TVET staff in TVET institutions and companies. This leads to the question of how to develop appropriate competences of TVET teaching and management personnel.