



Digitization of training content and development of hybrid training in VET (HYBVET)

Promising Practice

Implemented by:

Vilnius Technology and Engineering Training Centre

Where:

Lithuania

Status:

Started in March 2021

Summary:

Introducing and developing hybrid-simulation training, which is proven and widely used in higher education and vocational education and training.

Overview

TECHIN, the Vilnius Technology and Engineering Training Centre, is based in Vilnius, Lithuania. It is dedicated to providing comprehensive vocational training and qualification development services. Focusing on IT and engineering specialities, TECHIN employs modern technologies and the latest practical knowledge in the business sector to deliver initial and continuing professional training.

Description

International research

The research and case studies were conducted in partner countries Lithuania, Latvia, Estonia, Spain, and Portugal to prepare and develop a specific VET new programme or module through hybrid simulation training. These case studies formed the basis of an agreement between the project partners on the project's next phase and for assigning specific responsibilities to each partner. The information gathered during the round table discussion reinforced the assumptions and arguments of the case study conducted and, at the same time, served as a dissemination tool to inform national stakeholders about the project being implemented.

Hybrid training

It was essential to develop a training methodology and interactive materials for VET trainers that would allow future trainers to design hybrid-simulation training content for any profession and manage the hybrid-simulation training process. This material was needed to understand and quickly adapt to the level of the proficient user, even without exceptional computer literacy or the ability to work with IT systems. Vocational teachers in partner institutions developed and piloted specific vocational programmes using a hybrid-simulation training approach.

Six hybrid programmes/modules

Representatives from each country were expected to be leaders in designing a hybrid-simulation training programme or modules unique to a particular area of education while contributing to the design of programmes assigned to other countries. It was important for each country to try out a programme of its own, which would be provided through hybrid simulation training.

Certificates of Hybrid Training Professionals were issued after summarizing the results of their theoretical and practical training, the quality of the programmes they developed and how they worked with students.

Objectives

HYBVET project aimed to introduce and develop hybrid-simulation training, which is proven and widely used in higher VET education (especially in medical studies). Medical studies have demonstrated that this training method can successfully apply to students' soft and technical skills.

The objectives of the project are:

- To prepare a feasibility study on applying hybrid-simulation training in VET, identifying areas for piloting this training method in VET.
- To develop a VET teacher training programme that would provide teachers with the skills to digitize and adapt the teaching content through hybrid simulation training and the management of the hybrid-simulation training process.
- To carry out pilot adaptation/conversion of selected VET programmes or modules for training using a hybrid-simulation training method – which combines learning situated in an educational environment with a workplace environment.

The results generated by this project are used by the participating training institutions. The project was aimed at VET teachers and students trained in piloting curricula or modules within the project's scope. The indirect target group was other VET institutions and their students, who were introduced to a hybrid-simulation approach at the end of the project. After the end of the initiative, teachers from VET institutions were also trained and provided with a hybrid simulation training management platform.

Developing a hybrid simulation programme to digitize the teaching content

In the context of the fourth industrial revolution and the rapid change of technologies in various sectors of the economy, those who are already working and want to work need the most effective training or retraining. Robots are already heavily employed in industry and must be serviced and executed.

At the same time, it becomes clear that the concept of professional qualifications will change over the next few years, with workers in specific jobs no longer needing the same set of skills but rather a set of skills attributable to different professional qualifications. Workers at all levels of the world will continue to need new skills, which they want to acquire in a very targeted, effective and timely manner. Understanding the complexity and importance of the project, partner institutions selected staff with excellent research and analytical skills. These were individuals working in the Strategic Development / Project Departments who also had a deep knowledge of the national VET system and a broad understanding of the context that influences it.

The leading performer of the analytical phase was KTC (Lithuania), which brought together professionals with extensive experience in hybrid simulation training. All trainers had degrees and were practising scientists and lecturers at Lithuanian and foreign universities. Each training institution selected and delegated four individuals to the training, depending on whether their professional specialization matched the training programmes chosen to be adapted and implemented by the hybrid-simulation training method. The project partners had to agree that the entire team of trained trainers (24 in total) specialized in all selected areas of VET and could contribute to developing hybrid simulation training methodology, training material and other project results. Trainers involved in the project were chosen from the existing staff. Fifteen students attended full-time training and successful hybrid simulation training sessions and received Hybrid Simulation Training Professional Certificates. Moreover, ninety students took part in hybrid simulation training sessions as listeners.

Outcomes and impact

If one is short on time and seeking to learn quickly, fast and straightforward training is necessary to guarantee a high level of effectiveness and mastery of knowledge. This project has made it possible to adapt and develop simulation/hybrid training within the VET system in search of practical solutions to meet the needs and expectations of prospective students.

Innovative practices in a digital era

HYBVET was unprecedented among the partner institutions as it enhanced access to training and qualifications for all and supported the uptake of innovative approaches and digital technologies for teaching and learning. The project created a new generation of training content adapted to be delivered innovatively – hybrid simulation training – using information and video technologies in the training process.

A new direction of VET functioning

Today, pedagogues who participated in the training and are recognized as specialists can independently prepare new quality training programmes and lead the hybrid simulation training process.

Future of European VET education

The project results were evaluated positively in the meetings of the project partners with the interested parties. Therefore, at the national level in their country, each partner will continue to spread best practices from the project. Meanwhile, it is too early to assess the project's impact at the European level, but there is a clear ambition to continue.

Challenges and insights

Creating a hybrid learning environment can be pretty challenging, starting with analysing the professional tasks that make up the content of the learning environment. These tasks can be broken down into smaller units. An essential part of the powerful learning environments model is the “authentic task,” which involves planning, organization and arrangement skills. These tasks should be performed in realistic contexts and taken from vocational practice.

However, they may need to be adapted to make them accessible to learners by dividing them into sub-tasks. The authentic tasks of a learning environment come from a professional domain, such as process technology, the hospitality industry or sports and leisure. A learning environment can be unravelled into separate authentic tasks for analytical purposes but must remain part of an intact whole. Authentic tasks must be sequenced and connected to weave together the realistic work processes and learning processes that are the fabric of a hybrid learning environment.

Learn more

Vytautė Vasiliauskienė, Project Manager from Vilnius Technology and Engineering Training Centre, helped to compile this document.

For more information, please contact:
vytaute.vasiliauskiene@techin.lt

To learn more about Vilnius Technology and Engineering Training Centre, visit:
<https://www.techin.lt>

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Next steps

The institution plans to implement 2BecomeVETT: ‘Training retired professionals as VET teachers using a hybrid training method and an apprenticeship training model’. The project was prepared under the Erasmus+ scheme ‘Cooperation partnerships for VET’. The project partners are looking for further funding opportunities to develop and apply HYBVET results.

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