Co-funded by the Erasmus+ Programme of the European Union

IO5 Policy recommendations / Guidelines

A2 Final report

Q4EDU
QUALITY FOR DIGITAL EDUCATION READINESS IN VET

Author:

LUKASIEWICZ RESEARCH NETOWRK – INTITUTE FOR SUSTAINABLE TECHNOLOGIES (Łukasiewicz - ITeE)
Centre for Vocational Education Research and Innovation Management

All Partners contributed

This project has been funded with support from the European Commission. This communication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.
«Quality for Digital Education Readiness in VET» Project number: 2020-1-PL01-KA226-VET-095343.

Co-funded by the
Erasmus+ Programme
of the European Union

POLICY RECOMMENDATIONS/ GUIDELINES

PROJECT INFORMATION

Project acronym:

Q4EDU

Project title:

Quality for Digital Education Readiness in VET Project

Project Number:

2020-1-PL01-KA226-VET-095343

Sub-programme or KA:

KA2 - Cooperation for innovation and the exchange of good practices

KA226 - Partnerships for Digital Education Readiness

Website:

https://q4edu.eu

CONSORTIUM:

- Coordinator:
  - UNIWERSYTET LODZKI - UoL (Poland): www.uni.lodz.pl
- Partners:
  - EUROPEAN DIGITAL LEARNING NETWORK (Italy) – www.dlearn.eu
  - SIEC BADAWCZA LUKASIEWICZ - ITeE (Poland): https://www.itee.lukasiewicz.gov.pl/
  - CITY COLLEGE (Greece): https://york.citycollege.eu
  - EMPHASYS CENTRE (Cyprus): www.emphasyscentre.com
  - ATLANTIS ENGINEERING (Greece): www.abe.gr

TABLE OF CONTENTS

1. Introduction

The need for a rapid, unexpected shift to remote learning was the challenge faced by vocational education and training systems in all countries affected by the pandemic in the face of COVID-19. In this exceptional situation, the digitization of both didactic and organizational processes in institutions of continuing education and vocational training have significantly accelerated and the need to ensure the quality of these processes has become even more urgent.

Many VET institutions were not ready for these new conditions and many did not cope with them. The opportunities resulting from the availability of a wide range of digital tools for conducting online classes, e-learning platforms, digital educational resources did not protect participants and organizers of didactic processes from numerous challenges. These included the level of digital competences of teachers and students, online teaching methodology, technological equipment of institutions, availability of equipment and the Internet at home, and above all a number of social issues related to distance education[1].

On the other hand, the experience of the COVID-19 crisis has shown that education and training systems and institutions that had previously invested in their digital capacities were better prepared and better able to keep learners engaged and continue education and training[2].

In these conditions, the idea of supporting VET institutions in digital transformation processes, thanks to methodology for assessing and improvement of their digital readiness was born and implemented.

2. What actually is the result of Q4EDU project?

The proposed Digital Readiness Evaluation Methodological Framework is a complex and comprehensive solution for assessing and improvement of the readiness of VET institutions to digitize their activities, based on the European Framework for Digitally – Competent Educational Organization (DigCompOrg)[3].

Digital learning technologies are a key enabler for educational organizations that can support their efforts to realize their specific mission and vision of quality education. Deep, as opposed to superficial, integration of digital technologies requires significant educational innovation and implies a process of planning changes in three basic dimensions: pedagogical, technological and organizational. Our solution provides a comprehensive and general conceptual framework that reflects aspects of the process of systematic integration of digital learning in educational organizations and is consistent with overall EU learning strategy in the digital age, in particular with:

- European Education Area by 2025
- Digital education action plan for 2021-2027

[1] Plebańska M., Szyller A., Sieńczewska M.: Raport – Edukacja zdalna w czasach COVID-19; Uniwersytet Warszawski, 2020
[2] Communication from the commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Digital Education Action Plan 2021-2027 Resetting education and training for the digital age; https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0624&from=EN
[3] Kampylis, P., Punie, Y. & Devine, J. (2015); Promoting Effective Digital-Age Learning - A European Framework for Digitally-Competent Educational Organisations; EUR 27599 EN; doi:10.2791/54070

- DigComp - European Digital Competence Framework for Citizens
- DigCompEdu –Digital Competence Framework for Educators.

The core elements of Q4EDU methodology are following:

2.1. **IT tool (DigiRAsT)** enabling the self-assessment of the readiness of VET institution to digitize its activities (pedagogical, technological, organizational). It gives the opportunity to register the organization and take part in a self-assessment test in seven subject areas (corresponding to the structure of the DigCompOrg framework). The tool allows you to quickly assess digital readiness at the organization level, based on information from different users. The self-assessment questionnaires for each area are based on a series of descriptors defining digitally competent educational organizations. It refers to the management of the VET institutions and is in line with identification of areas for improvement how to manage the organisation better towards digital transformation.

2.2. **Competence profile and training materials for Q4EDU expert** (an expert on assessing the digital readiness of VET institution). The areas of self-assessment (using DigiRAsT tool) are covered by seven training modules that help interested VET teachers/trainers to acquire the key competences for the effective implementation of digital learning technologies. These are: Module 1 Leadership and governance; Module 2 Teaching and learning; Module 3 Professional development; Module 4 Assessment; Module 5 Curriculum and Content; Module 6 Collaboration and networking; Module 7 Infrastructure.

The training content of the individual modules provides support to users (teachers/trainers) in their quest to achieve excellence for each of the key areas of the DigCompOrg standard.

The program and training materials are Open Educational Resources, available using Virtual Learning Environment technology to anyone interested in the issues of digitization of education and ensuring the quality of education.

3. Objectives of this document

The document aims to support the process of making the widest possible use of the results of the Q4EDU project. It contributes to raising awareness among European teachers/ trainers and managers of VET institutions on the potential benefits of implementing the methodological framework for assessing the digital readiness of education and training institutions in Europe, including assuring the quality of training delivered.

4. Target groups of this document

The document is addressed to a wide range of European VET institutions, national and international organizations associating professionals from the VET sector (umbrella organisations), institutions and organizations involved in the processes of ensuring the quality of teaching and learning processes in the digital age, government bodies and agencies responsible for education and training.

Through them, project Partnership wants to reach the widest possible range of teachers, trainers, managers of European VET institutions and decision-makers creating directions of development and investment in the VET sector.

5. What is the desired impact of the project results?

LOCAL/REGIONAL LEVEL
Local trainers receive high-quality, modular and well-structured training content among others for preparing their teaching processes, training materials, curricula. At the same time, local VET providers, that are informed on the project's results, incorporate the newly developed and validated VET course within their training portfolio and thus become more competitive. Additionally, VET providers adopt the Q4EDU methodology to assess the digital readiness of their own organisation and courses.

NATIONAL LEVEL
To achieve the impact at national level, the project provides its results to different national entities. The national VET associations become aware of the potential offered by the new Q4EDU methodology and its benefits so inform their members (VET centres) throughout their country. The newly developed methodology and the proposed course is being advertised and offered centrally from these associations or from relevant business associations, who organise dissemination and training events at national level.

EUROPEAN LEVEL
The project results are available as an Open Educational Resource and are be published in the Erasmus+ online platforms. Different European entities could make use of the produced outcomes.

Thanks to the functionalities of the DigiRAsT tool, it is possible to collect information about the evaluation of digital readiness in the VET sector in Europe and to compare the differences in different EU countries.

INTERNATIONAL LEVEL
Like in the European level, at international level the project's results could form new ideas, further improve the course and the assessment methodology and initiate debates among various stakeholders. The results will be interesting for the international associations, which are dedicated to the improvement of high-quality vocational education and training throughout the world. Project Partnership provided a solution for assessing digital readiness that contributes to the improvement of the VET agility and competitiveness.

6. Recommendations

Primary aim of the Q4EDU is to provide a unique opportunity to VET institutions to monitor and assess their digital readiness and its effect on the quality of the delivered training.

The Project Partnership recommends in this document a comprehensive approach reflecting all aspects of the process of systematic integration of digital technologies in educational organizations, in three basic dimensions: pedagogical, technological and organizational (deep digitalization).

The proposed DigiRAst tool and the digital readiness assessment expert training model ensure **complementarity with other strategic education activities** in the post-covid digital age (DigComp, DigCompEdu, DigCompOrg and others). Q4EDU solutions are the first to fully comply with the structure and subject areas of the European Standard of Digitally Competent Organizations DigCompOrg.

DigiRAsT is an on-line tool that allows for a **quick assessment** of the digital readiness of a VET institution based on the **self-reflection** of users representing various communities of the institution (employees, students). In order for the result of the assessment to be as reliable as possible, it is necessary to involve the widest possible spectrum of staff and pupils/students. Therefore, in accordance with the assumptions of the LEAN philosophy, it is necessary to build their awareness and sense of responsibility for the effective implementation of digital technologies in their VET institution in a comprehensive and long-term manner. For the effective use of the results of the assessment, it is particularly important to build **awareness and readiness for change** (including investments) among management.

The DigiRAsT tool allows you to **compare the level of digital readiness** of a given institution in relation to other institutions from specific country or abroad. **Benchmarking** can concern either the global result or individual **seven thematic areas** (Leadership and governance; Teaching and learning; Professional development; Assessment; Curriculum and Content; Collaboration and networking; Infrastructure). Analyses of data collected in the system (e.g. taking into account the criterion of the type of institution, size of the institution, country) should constitute an interesting area of research and the basis for inference, e.g. on possible similarities and/or differences or the effectiveness of support systems for the digitisation of education and vocational training used in different countries.

The effectiveness/(long-term) impact of the Q4EDU project results on the level of digitization of VET institutions should also become the subject of broader qualitative research.

In order to enable the institution to **continuously monitor** and observe trends in both the global assessment of the level of digital readiness and in relation to individual thematic areas, periodic repetition of the assessments made is necessary.

The system identifies **areas for improvement** and offers access to **relevant training content**. The development of competences of VET employees (including managerial staff) in the indicated thematic areas is recommended as a way and opportunity for effective implementation of corrective actions. They will allow to increase the **level of digital readiness** of the institution and obtain a better result on the occasion of subsequent research. It is worth emphasizing here that many potential corrective actions will be long-term and the expected results will be spread over time.

The seven areas of digitalisation assessment in DigiRAsT correspond to the same number of training modules (Module 1 Leadership and governance; Module 2 Teaching and learning; Module 3 Professional development; Module 4 Assessment; Module 5 Curriculum and Content; Module

6 Collaboration and networking; Module 7 Infrastructure), the content of which is recommended as a support in the pursuit of indicators describing the state of **excellence** for each of the key areas of the **DigCompOrg standard**. This content will help interested VET teachers/trainers to acquire the key competences for the effective **implementation of digital technologies** in **teaching and learning processes**.

The program and training materials are recommended both for use in self-study processes and during traditional stationary classes. They are **Open Educational Resources**, available to anyone interested in the issues of digitization of education and ensuring the quality of education.

The training content for each module, in addition to the original material, also contains references to attractive and professional **external sources** that can serve to achieve the objectives of the Q4EDU Expert training. These include, for example, **educational platforms** and **applications**, educational materials available on social media, and private Internet user resources, databases and more. Efforts have been made to gather tutorials, webinars, blogs recommended to CVT teachers/trainers by their colleagues – other teachers/trainers.

Access and use of the developed training materials does not require any special software from users. All you need is a computer (tablet, smartphone or other mobile device) connected to the Internet, with a web browser and an office software package.

Each module contains an element of **validation** of learning outcomes. According to the idea of micro credentials, training users can collect confirmations for each of the seven modules (step by step) and do not have to attend the entire course. To obtain the "**Q4Edu Expert**" certificate (according to the developed competency profile), a positive test result is required for each of the seven modules.

It is recommended to create in the minds of Q4EDU experts the mission that they have and will have in the future as "**ambassadors** of deep digitization of VET institutions".

Full availability in 4 EU languages (EN, PL, GR, IT) of both the DigiRAsT tool and the training content for the Q4EDU expert is a potential of the present (2023), which can be developed in the future with further language versions.

Due to the rapid technological development and the increasingly rich offer of tools, applications, materials supporting the digitization of teaching processes (including the organization and implementation of distance education and training), it **is required to update the training materials** offered to the VET digital readiness assessment expert.

7. What could be done?

Our aim is to start a capacity-building process to raise awareness of VET teachers/ trainers, decision-makers of the potential benefits of the diffusion of the Digital Readiness Evaluation Methodological Framework to VET institutions Europe-wide. For the purpose of spreading Q4EDU model and achieving desired impact on the competitiveness of VET institutions in the digital age, following activities should be taken:

1. **Local, national, European and international organisations associating groups of professionals from the VET sector (umbrella organisations), should be identified and informed about proposed methodology for assessing and improvement of the readiness of VET institutions to digitize their activities.**

   Chosen organisations/associations on European/international level:

   - European Centre for the Development of Vocational Training –CEDEFOP (https://www.cedefop.europa.eu/en)
   - European Distance and e-learning Network – EDEN (https://www.eden-online.org);
   - European Digital Learning Network – dLearn (http://dlearn.eu)
   - European Association of Institutes for Vocational Training – EVBB (https://evbb.eu)
   - Lifelong Learning Platform (https://lllplatform.eu)
   - DIGITALEUROPE (https://www.digitaleurope.org)
   - Digital Leadership Institute (http://www.dlii.org)
   - Centre for Research and European Studies (http://www.asscres.eu/)
   - DISCUSS – The European Community Practice on Lifelong learning (https://www.discuss-community.eu/)

   Chosen organisations/associations on national/regional level:

   - Teacher training centres: Centre for Information Technology Education and Computer Applications (https://www.oeiizk.waw.pl); Mazovian Self-Government Teacher Training Centre (https://mscdn.pl); Lodz Centre for Teacher Training and Practical Training (https://www.wckp.lodz.pl)
   - European Forum of Technical and Vocational Education and Training (https://www.efvet.org)
   - Vocational Education and Training Association (iveta.org)
   - European Research Network Vocational Education and Training (VETNET) (https://vetnetsite.org/about/)
   - Cyprus Ministry of Education, Sport and Youth – Department of Secondary Technical, Vocational Education and Training (http://www.moec.gov.cy/dmteek/en/index.html)
   - EOPPEP – Greek National Organisation for the certification of organisations & Vocational Guidance (https://www.eoppep.gr/index.php/en/home-en)
   - Greek Federation of Secondary Education State School Teachers (https://www.olme.gr/)
   - Hellenic Educational Society (http://www.pee.gr/?lang=en)
   - Athens Institute for Education and Research (https://www.atiner.gr/)

2. **Government bodies and agencies (including European Commission) creating educational policy and responsible for VET systems, especially for digitalisation and quality assurance should be identified and informed.**
   - EAC Directorate –general Education, Youth and Culture
   - European Centre for the Development of Vocational Education (https://www.cedefop.europa.eu/en)
   - European Training Foundation – ETF (https://www.etf.europa.eu/en)
   - European Skills Council (http://www.europeancommerce.eu)
   - Digital Affairs Council at the Ministry of Digital Affairs (https://www.gov.pl/web/cyfryzacja/rada-do-spraw-cyfryzacji)
   - Centre for Education Development (https://www.ore.edu.pl)
   - Ministero dell'Istruzione e del Merito (https://miur.gov.it/istruzione-e-formazione-professionale)

Selected channels of reaching the above-mentioned target groups:

- cyclical conferences, seminars or other types of events organized, among others, by the above-mentioned entities, devoted to the subject of digitization of education / quality of online education, etc. for example:
  - International Congress of Education Quality (https://iceq.pl),
  - Congress of Future Competences (https://kometa.edu.pl)
  - Conferences and Seminars in Italy (https://www.miur.gov.it/conferenze-e-seminari)
  - Fiera Didacta Italia (https://fieradidacta.indire.it/it)

- Publications in professional journals, for example:
  - E-mentor – scientific quarterly (https://www.e-mentor.edu.pl/eng/).
  - Journal of Continuing Education - scientific quarterly (https://edukacjaustawicznadoroslych.eu/index.php/en).
  - TUTTOSCUOLA.COM (https://www.tuttoscuola.com)
  - The Journal for Educators, Teachers and Trainers (JETT) (https://jett.labosfor.com/index.php/jett)
  - New Educator (https://neospaidagogos.online/)
  - Athens Journal of Education (https://www.athensjournals.gr/aje)

- Presence and activity on learning platforms, for example:
  - EPALE (https://epale.ec.europa.eu)
  - Istituto Nazionale Documentazione Innovazione Ricerca Educativa – INDIRE (https://www.indire.it)
  - Eurocultura (https://www.eurocultura.it)
  - European School Education Platform (https://school-education.ec.europa.eu/en)

References

1. Baron Rodriguez M., Cobo C., Munoz-Najar A., Sanchez Ciarrusta I.: Remote learing during the global school lockdown: multicounty lessons. The World Bank Group. 2020
2. Communication from the commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Digital Education Action Plan 2021-2027 Resetting education and training for the digital age; https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0624&from=EN
3. Kampylis, P., Punie, Y. & Devine, J. (2015); Promoting Effective Digital-Age Learning - A European Framework for Digitally-Competent Educational Organisations; EUR 27599 EN.
4. Plebańska M., Szyller A., Sieńczewska M.: Raport – Edukacja zdalna w czasach COVID-19; Uniwersytet Warszawski, 2020
5. Raport Ministra Edukacji Narodowej Zapewnienie funkcjonowania jednostek systemu oświaty w okresie pandemii COVID-19; MEN, Warszawa 2020
6. Redecker, C. European Framework for the Digital Competence of Educators: DigCompEdu. Punie, Y. (ed). EUR 28775 EN. Publications Office of the European Union, Luxembourg, 2017.
7. Skills beyond School. Synthesis report. OCED 2014; https://www.oecd.org/education/skills-beyond-school/Skills-Beyond-School-Synthesis-Report.pdf
8. Vuorikari, R., Kluzer, S. and Punie, Y., DigComp 2.2: The Digital Competence Framework for Citizens - With new examples of knowledge, skills and attitudes, EUR 31006 EN, Publications Office of the European Union, Luxembourg, 2022.