



Co-Development Workshop on Quality Assurance in Digital Learning Environments (EQAVET) – Final Report

Report published: October 3, 2025

Organised by: Finnish National Agency for Education (NRP Finland)

Authors: Tomi Ahokas, Riikka Vacker (EDUFI)

Invited experts from the following countries participated in the project:

Austria, Czech Republic, Denmark, Estonia, Finland, Spain and Sweden.



Project 101124634 - EQAVET-NRP-FI-2023
Topic: ERASMUS-EDU-2023-EQAVET-IBA
EQAVET - European Quality Assurance in
Vocational Education and Training
NRP Finland

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.

Content

Introduction	3
Quality Assurance in Digital Environments	4
Preparatory Webinar – March 3, 2025	4
First Workshop – May 14, 2025, Finland	5
Presentations	5
Assignment for Small Group Exercise 1	5
Summary of Outcomes – Small Group Exercise 1	8
Virtual Reality (VR) Training Solution	8
Augmented Reality (AR) Training Solution	8
Digital Simulations	9
Physical Simulator with Controls	9
Chatbot Solutions for Simulating Customer Service Scenarios	10
Additional Observations from Group Discussions	10
Second Workshop – May 15, 2025, Finland	12
Visit to Education Provider and Presentations	12
Assignment for Small Group Exercise 2	12
Summary of Outcomes – Small Group Exercise 2	13
Concluding Remarks	15
Workshop Focus and Scope	15
Small Group Outcomes	15
General Observations from the Workshop	16
Main Findings and Recommendations	16
Working Methods and Next Steps	17
Appendices	18
Programme: Co-Development Workshop on Quality Assurance in Digital Learning Environments (EQAVET project) - PART I: Online Webinar on 3 March 2025", from 9:00 to 12:00 CET	18
Programme: Co-Development Workshop on Quality Assurance in Digital Learning Environments (EQAVET project), May 14–15, 2025	19
Referenced Materials from Presentations, Group Exercises and Discussions	21

Introduction

As digitalisation reshapes teaching and learning, it is vital to ensure that digital learning environments are designed to support meaningful and high-quality learning experiences. These environments are increasingly tailored to individual learners and are becoming more diverse and complex. This growing need highlights the importance of developing shared understanding and approaches to quality assurance in digital learning environments across countries.

To address this common challenge, the Finnish National Agency for Education (EDUFI) organised a two-day international co-development workshop on 14–15 May 2025 in Finland, as part of the national EQAVET project (2023–2026). The project aims to enhance the quality of vocational education and training (VET) in line with the EQAVET framework and European education policy objectives, particularly in the context of dynamic and evolving digital learning environments. The workshop brought together experts from seven countries, selected based on their active engagement in developing digital solutions in VET. Participants represented both system-level actors and educational institutions. All invited experts who participated in the project are listed in Table 1.

Table 1. Project participants

Country	Name	Organisation
Austria	Jouko Luomi	OeAD Austria's Agency for Education and Internationalisation
Czech Republic	Irena Fričová	National Pedagogical Institute of the Czech Republic
Denmark	Bjarne Andersen	Styrelsen for Undervisning og Kvalitet
Estonia	Kai Hermann	Estonian Quality Agency for Education
Finland	Tomi Ahokas	Finnish National Agency for Education
Finland	Oona Haapakorpi	Omnia
Finland	Paula Kaukorinne	Etelä-Savon Koulutus Oy
Finland	Sanna Laiho	Finnish National Agency for Education
Finland	Iikka Upanne	Omnia Education Partnerships
Finland	Riikka Vacker	Finnish National Agency for Education
Spain	José Ángel Del Pozo Florez	Ministry of Education, VET and Sports
Sweden	Gunilla Rooke	Skolverket

Quality Assurance in Digital Environments

The theme of digital learning environments in VET is broad, covering everything from technological solutions and teaching methods to how learning connects with working life. This makes it difficult to evaluate quality, as digital learning environments are used in various ways across occupations and local practices and they continuously evolve due to rapid technological advancements. Quality requirements for digital learning environments also vary depending on the phase of the learning process. For example, requirements are much stricter for competence assessment than for practicing individual components of a skill.

Quality in digital learning environments does not have a single definitive answer. It should be understood as a combination of factors, including pedagogical usability, accessibility, reliability and connection to authentic vocational practices. From a vocational education perspective, quality assessment also involves critically evaluating when digital environments provide sufficient added value relative to the investments required. The workshop highlighted key points for stakeholders to consider when planning, implementing or investing in digital solutions.

The workshop aimed to share examples and best practices and reflect on how to assure the quality of digital learning environments in VET. Key themes included the use of digital environments in teaching and learning, elements that define quality, collaboration with working life and situations where digital tools are particularly beneficial. In VET quality is linked to how well digital solutions can simulate real work tasks and their different phases. Therefore, the workshop focused particularly on the specific features of vocational education and how practical work can be effectively simulated in digital environments.

The workshop provided opportunities to share experiences, identify good practices and reflect on improving digital learning environments in VET. The outcomes were published online in English, shared with the participants and disseminated through EDUFI's website and the National Quality Network for VET in Finland, supporting continued development and collaboration.

Preparatory Webinar – March 3, 2025

Before the workshop a preparatory webinar was held on 3 March 2025 to introduce the key themes and to allow each participating country to present current developments in digitalisation within VET and examples of digital learning environments. Another key objective was to save time for small group work and focused discussions during the workshops by delivering general presentations before the actual workshop. The webinar also helped participants become familiar with one another, creating a more collaborative atmosphere for the upcoming sessions.

The following themes were highlighted in the webinar presentations and discussions:

- Brief overviews of each country's VET system, including different study pathways and the responsibilities of various stakeholders. This background information was essential for understanding how and by whom digital learning environments are developed in each country.
- Summary of themes from country presentations:
 - National digital strategies and long-term plans for advancing digitalisation.
 - Examples of digital learning environments used in each country.
 - Digital competence of students and teachers.

- Critical media literacy.
- The impact of artificial intelligence (AI) development on education and working life and the growing need for related skills.
- Digital wellbeing.
- Significant variation between education providers and students in terms of digital readiness and practices.
- Challenges related to the use of students' personal digital devices in educational institutions.
- The themes and discussions from the webinar were used to refine and finalise the agenda for the workshop days on 14–15 May 2025.

First Workshop – May 14, 2025, Finland

Presentations

On the first workshop day, experts from different countries gathered at the EDUFI office in Helsinki. During the workshop programme, participants heard presentations covering current national and European themes related to the digitalisation of education. One example was the DigiTourism project by South Savo Vocational College (Esedu), presented by Project Manager Paula Kaukorinne. The project aims to strengthen the digital and AI-related skills of micro and solo entrepreneurs in tourism, events and creative industries, while also enhancing business operations through digital tools and networking. It contributes to the development of online training and teacher competence in the tourism sector.

Director Jarkko Niiranen from the Finnish National Agency for Education (EDUFI) gave a presentation on the agency's current priorities related to digitalisation in education, including the recently published national recommendations on the use of AI in education. The discussion also covered other current priorities of the agency, offering a broader perspective on national efforts in digitalisation and quality assurance in vocational education.

Education Outreach Expert Kari Kivinen from the European Union Intellectual Property Office gave an online presentation on AI literacy and digitalisation in education. He provided a comprehensive overview of several EU-level initiatives and projects aimed at developing the knowledge, skills and attitudes needed to engage with AI critically and ethically. These initiatives address key themes such as the pedagogical use of AI, its societal impacts and the importance of fostering critical thinking. The presentation also addressed high-risk AI applications in education, such as student selection and assessment and the challenges caused by the absence of clear common guidelines due to the rapid development of AI. Teachers have also expressed a strong need for training on AI to be able to use it effectively and safely in their work.

Assignment for Small Group Exercise 1

On the first day of the workshop, participants worked in two small groups facilitated by EDUFI experts. Using the Miro platform, they focused on a set of predefined digital solutions relevant to vocational education (see Table 2). The discussion was limited to tools designed to simulate professional work processes in various occupations.

While digital tools are widely used for teaching and assessing general skills (e.g., mathematics and other subjects included in vocational qualifications), developing solutions for occupation-specific skills is often more challenging. In these cases, the goal is to replicate actual work processes or parts of them as realistically as possible. This focus was considered a useful limitation, as it allowed the discussion to concentrate on vocational education and its specific pedagogical and practical challenges.

Participants were also encouraged to add their own examples alongside the predefined ones. Each solution was examined from multiple evaluation perspectives (see Table 3). These perspectives included both broad and open-ended aspects (e.g. the main strength of the solution) as well as more specific criteria (e.g., how easy the materials are to use and update).

Table 2. Small Group Exercise 1: Digital Solutions and Descriptions

Digital solution	Description
Virtual reality (VR) training solution	A training tool where learners wear VR headsets to practice tasks in a fully virtual environment, such as operating machinery or handling customer situations, safely and realistically.
Augmented reality (AR) training solution	A tool that adds digital information (like instructions or images) to the real world through devices like smartphones or AR glasses, helping learners practice tasks step by step.
Digital simulations (e.g., on a computer screen or interactive display)	Simulations on a computer, tablet, or interactive screen that allow learners to practice tasks like using software or handling machines without the need for VR equipment.
Physical simulator with controls (e.g., screen, steering wheel, control stick, pedals, or control panel)	Physical simulators that enable users to practice tasks such as operating machinery or driving vehicles.
Chatbot solutions for simulating customer service scenarios	AI chatbot tool for practicing customer service interactions through realistic, simulated conversations.
Other	Each small group can add a digital solution they believe could be included in the list of digital solutions.

Table 3. Small Group Exercise 1: Assessment perspectives

Assessment perspectives
Suitability for different qualifications and work processes (ideal for)
Suitability for different qualifications and work processes (less suitable for)
The solution's main advantage (choose 1)
The solution's main weakness (choose 1)
Key factors to consider for ensuring the quality of the learning solution
Learner experience (motivation and engagement)
Accessibility and usability (How accessible and intuitive the solution is for all users, considering special needs and varying digital skills)
Content management (ease of creating, updating, organising and sharing learning content)
Costs (hardware, software, required licenses, updates, space, etc.)
Scalability and flexibility (scaling across users, institutions and use cases and qualifications)
Each small group can introduce a new assessment perspective they believe is relevant for evaluating digital learning solutions.

Summary of Outcomes – Small Group Exercise 1

Virtual Reality (VR) Training Solution

Advantages

- Well-suited for tasks that require repetition.
- Ideal for simulating scenarios that cannot be practiced in real life due to safety or production risks.
- Excellent for introducing new professions and showing what the work looks like from the worker's perspective. Also useful as preparation before entering real environments.
- Not dependent on time or location. Saves on travel and implementation costs.
- Gamification can increase learner motivation.

Disadvantages

- Focuses heavily on visuals. Achieving a realistic sense of physical interaction is more difficult than visual realism.
- Not suitable for everyone (e.g., some users may experience motion sickness in VR environments).
- High equipment costs and content development demands specialised skills and time.

Other Considerations

- It is important to evaluate whether the investment is worthwhile and whether the benefits are sufficient.
- Expensive, so it must be used wisely.
- Sometimes a cheaper, practical alternative may be more effective.
- Emphasises the importance of shared use of materials.
- Students may vary significantly in how engaging or useful they find VR solutions.
- Requires teacher expertise, especially if teachers are creating the content themselves.
- Close cooperation with working life is essential to ensure solutions reflect real-world practices.

Augmented Reality (AR) Training Solution

Advantages

- Can be applied across all fields.
- Suitable for a wide range of different use cases.
- Very low barrier to entry, making it easy to test with small-scale pilots and inexpensive options (e.g., using just a smartphone).
- Cost-effective for simple implementations.
- Simple to use and accessible to most students.
- Students can be engaged in content creation.
- A key benefit is the ability to integrate with the real world.

Disadvantages

- Costs can rise quickly when scaling up from small pilots to larger solutions.

Other Considerations

- Based on the workshop discussions, only a few practical examples of AR solutions were mentioned, indicating that experts have limited experience with AR.
- Can be integrated into real-world tasks (e.g., projecting installation instructions onto smart glasses).
- In the future AR glasses/helmets may become more common tools in various job tasks.

Digital Simulations

Advantages

- Excellent cost-effectiveness.
- A great way to introduce users to a field or specific job tasks.
- Easy to take into use in vocational education contexts.
- Effective for simulating and studying dangerous scenarios (e.g. power plant malfunctions).
- Enables data collection to support the development of teaching methods.
- Applicable across all fields and suitable for a wide variety of tasks.
- Well-suited for self-paced learning.

Disadvantages

- Difficult to create sufficiently realistic scenarios.

Other Considerations

- Teacher competence is crucial for effective use.

Physical Simulator with Controls

Advantages

- With physical simulators in certain fields and high-quality setups, it is possible to closely replicate real-life situations.
- Excellent tool for introducing students to a profession.
- Provides visual and physical interaction (e.g., through screen and controllers).
- Motivates students by allowing them to experience skill development through simulation.

Disadvantages

- Expensive to acquire.
- May become outdated faster than digital simulations.
- Difficult to relocate.

- Updating the simulator can be challenging.

Other Considerations

- Collaboration with industry is essential.

Chatbot Solutions for Simulating Customer Service Scenarios

Advantages

- Suitable for industries involving customer interaction.
- Cost-effective.
- Well-suited for online courses.
- Capable of producing unlimited and varied training materials.
- Effective for self-paced learning.
- Extremely user-friendly from the student's perspective.

Disadvantages

- Not fully reliable and requires guidance.
- Maintaining engaging conversations over time can be challenging.

Other Considerations

- Can be integrated with other solutions and this trend is expected to grow.
- Because content creation is easy, it may be overused and this makes careful application really important.
- Students might be more familiar with chatbot tools than teachers, which could complicate the integration of chatbots into teaching.
- Demands strong critical reading skills from students.

Additional Observations from Group Discussions

General Observations

- For all digital solutions covered in the exercise, a use can be found across different fields, although in some areas practical applications may be limited to a small part of a specific work process.
- An ideal learning path may progress through different phases from digital models to simulators and finally to real-world use (e.g., operating a machine or driving a car).
- Effective feedback and a sense of success are crucial elements in digital learning environments.
- Realistic experiences are essential, especially in vocational training. Simulating fine motor skills and hands-on work remains a major challenge despite progress in digital learning environments.
- National legislation in different countries affects the implementation of digital solutions. For example Finland's vocational education system uses local optional modules that offer significant adaptability.
- Combining multiple technologies into a broader digital solution can enhance learning experiences.

- Shared challenges exist across Europe in digital learning environments and their use, creating a strong need for collaboration and collective efforts.
- The suitability of the digital solution for competence assessment was proposed as a new assessment perspective.

Teacher Competence

- Teacher competence is a critical factor for the effective use of digital learning environments.
- Lack of competence can lead to resistance or rejection of digital methods.
- Teacher training is a major concern. There is a pressing need to prepare educators for the era of AI.

Artificial Intelligence (AI)

- AI is a highly topical, transformative and rapidly evolving technology that is changing education and working life.
- Educational administrations in various countries are developing guidelines, support materials and training programs to support the use of AI in education.
- There are significant differences in AI competence among teachers and students.
- Teachers' attitudes toward AI vary widely. Some are highly engaged, while others have not yet tried it and do not consider it relevant to their work.

Second Workshop – May 15, 2025, Finland

Visit to Education Provider and Presentations

The second workshop day was held at one of Omnia's campuses in Espoo, one of the largest VET providers in Finland. On the second workshop day, the work continued with a focus on practical collaboration, peer learning and the development of high-quality digital learning environments.

The day began with a campus tour and an introduction to Omnia's operations by Iikka Upanne, COO of Omnia Education Partnerships Ltd. Participants explored various learning spaces and digital tools used in Omnia's training programs. Oona Haapakorpi, Project Manager of the international VET2Sustain initiative, presented insights from the project's recent findings on the current and future use of AI and extended reality (XR) in VET. She also showcased examples of Omnia's digital learning environments, including immersive virtual materials and gamified learning experiences in the restaurant sector.

Assignment for Small Group Exercise 2

The objective of the second small group exercise was to support the widespread adoption of digital learning environments and to ensure the quality of their implementation over the next three years by identifying concrete actions to promote this goal. All participants were first asked to individually reflect on the issue, using the assessment perspectives presented in Table 4.

Table 4. Small Group Exercise 2: Digital Solutions

Assessment perspectives
How can education providers promote the issue?
How can education administration promote the issue?
How can working life promote the issue?
How can other stakeholders promote the issue?
What are the other important factors for achieving the objective?

Summary of Outcomes – Small Group Exercise 2

Education Providers

- Strengthen cooperation between education providers and promote the shared use of technical solutions.
- High-quality use of digital learning environments requires integration into the education provider's strategy. All teachers and students should be sufficiently engaged with this theme.
- Providers must allocate time for teachers to develop their skills and create an environment that supports the continuous improvement of both personal competencies and learning environments.
- Regular assessment of digital skills for both teachers and students is essential.
- Increased cooperation across different fields is encouraged, as there is much to learn from one another.
- Ensure teachers have adequate skills to adopt and use technical solutions effectively.

Teachers

- Teachers should be aware of the tools and technologies used in their respective industries.
- Teaching methods must be regularly reviewed due to rapid technological advancements.
- Teachers should critically assess the strengths and weaknesses of various digital learning environments and solutions.
- Some teachers may feel they lack time to develop their skills due to workload. While some engage through projects, others may not be connected to this theme at all.

Administration

- Increase funding for the implementation and development of modern technologies, both nationally and through EU support.
- Consider organising external evaluations to ensure quality and effectiveness.
- Support teacher competence by providing relevant training.
- Build and maintain networks between education providers and the working life.
- Encourage teachers to update their skills and adopt new technologies.
- Ensure clear legal frameworks, especially regarding the use of AI.
- Develop national strategies, frameworks, guidelines and recommendations for the use of digital learning environments.
- Investments are essential for progress but finding approaches that lead to lasting and scalable impact remains a challenge.

Working Life

- Employers are expected to collaborate with local education providers, as they expect graduates to be proficient in the latest technologies.
- Leverage workplace networks to support the development and implementation of digital learning environments.
- Promote shared learning environments between education providers and workplaces.
- The labor market defines the required digital competencies.

- Ensure that workplace mentors are competent and supported in developing their skills.
- Employers should actively contribute ideas for the development of digital learning environments.

Other Stakeholders

- Developers of digital solutions should actively present their tools to education providers to increase awareness among teachers.
- Encourage collaboration between vocational institutions and other educational levels to support seamless learning paths, especially in digital skills.
- Explore the potential role of student representative organisations in supporting the development of digital learning environments.

Additional Considerations

- Evaluate risks such as overuse and misuse of digital tools, as well as the risk that tools may become outdated due to rapid technological change.
- It is important to pay attention to how teachers are trained to adopt and use digital learning environments.
- In some areas there may be intense competition among education providers for workplace partners.
- In the development of digital learning environments, it is important to carefully consider which aspects require national coordination and which are best addressed through local development.

Concluding Remarks

As a result of the presentations, discussions and small group exercises, we gathered valuable insights on current themes in the digitalisation of VET across different countries. These included comparisons of various digital solutions, key considerations for their use and development proposals for multiple stakeholders. The workshop did not provide final answers or guidelines on quality assurance but highlighted key points to consider when developing and implementing digital solutions in VET. This concluding section summarises the main findings from the small group exercises and workshop discussions.

Workshop Focus and Scope

The small group work focused on digital learning environments that are especially relevant in VET, particularly those that can simulate authentic work processes and real-world vocational tasks to support concrete and practical outcomes from the project. The presentations and workshop discussions also provided more space for exploring broader, more general themes related to digitalisation, such as the development of teachers' digital competences and the use of AI in education.

Small Group Outcomes

The small group discussions highlighted that each digital solution assessed during the group work has its own strengths, limitations and specific characteristics that need to be considered. Their effectiveness depends on the context of use, learning objectives and available resources. For example VR and physical simulators are valuable for tasks requiring realism or repetition, especially in safety-critical environments. AR and chatbot solutions offer flexible, low-barrier options that can be easily piloted and scaled, while digital simulations were recognised for their cost-effectiveness and wide usability.

The workshop also emphasised that digital tools should not be viewed merely as replacements for practical training or as cost-saving measures, as such a narrow perspective can limit the potential of digital learning environments. In an ideal scenario, digital tools are most effective when integrated as part of a broader learning process to prepare learners before moving on to practical training and real-life situations. In some professions digital tools can realistically simulate complex work tasks, while in others they are better suited for practicing specific parts of the work process, such as customer interaction scenarios in people-oriented fields. Digital environments can also support learning in situations that involve high health or financial risks for inexperienced students or where repetition is necessary.

To support the broader adoption and high-quality implementation of digital learning environments, experts in the small group discussions identified concrete proposals for different stakeholders. Education providers play a crucial role by integrating digital learning into their strategic planning, supporting collaboration and ensuring teacher commitment to this theme. Teachers need time, support and training to develop their digital competencies and to critically evaluate the tools they use. Motivation, time for planning and resources are essential for teachers to take an active role in advancing these themes.

From an administrative perspective, sustainable progress requires sufficient funding, clear national strategies and legal frameworks that enable the use of diverse learning environments. Stronger connections between education providers and working life are also essential, as employers define the digital skills needed in practice and can contribute to the development of relevant learning environments. Participants

also noted that competition between education providers for workplace partners can be a challenge, highlighting the need for shared environments and collaboration.

Overall, promoting digital learning environments requires coordinated efforts, continuous competence development and a shared understanding of both opportunities and risks.

General Observations from the Workshop

Despite differences in national legislation and VET systems, different European countries face surprisingly similar challenges in adopting digital learning environments. It is important to recognise that digital solutions are not only about technology. Regardless of the technology and tools used, successful implementation requires careful pedagogical planning, strong teacher competence and collaboration with working life to ensure authentic and meaningful learning experience. Participants also emphasised the importance of improving learning-to-learn skills and using technology to enhance the quality of both teaching and learning. When used appropriately, digital tools can support students in learning more efficiently. However, potential risks such as overuse, outdated tools or a lack of pedagogical perspective must be carefully considered.

The workshops also highlighted several broader themes linked to digital learning environments that could be explored further as independent topics. For example, themes such as the digital skills of students and teachers, as well as the impact of AI on education and working life, were frequently raised in presentations and discussions.

Main Findings and Recommendations

1. Strategic Integration

Strategic planning for digital learning environments should extend beyond individual education providers. A shared strategy involving education providers, employers, administration and different European and other countries is essential to ensure alignment with qualification requirements, teacher competence development and real-world relevance and quality of learning outcomes.

2. Teacher Support and Competence Development

Teachers need sufficient time, training and resources to develop digital skills, critically evaluate tools and integrate technology effectively into teaching and learning. Motivation and planning time are crucial for active engagement.

3. Ensuring Students' Basic Digital Skills

Students need sufficient support to learn basic digital skills so that everyone entering vocational education and training, regardless of background or existing skills, has an equal opportunity to learn a profession that requires digital skills. The education provider must ensure this support is properly planned and implemented.

4. Purposeful Use of Digital Solutions

Digital tools should be used based on clearly defined learning objectives, careful pedagogical planning, the specific learning context and the resources available. VR, AR, simulators and digital platforms should support rather than replace practical training. Developers of these tools should

actively present solutions to teachers, enabling them to assess the pedagogical potential and relevance of these technologies.

5. Stakeholder Collaboration

Stronger connections between education providers, employers, administration, European partners and other stakeholders are essential. It is important to recognize the role and contribution of each actor to promote a common goal. Stronger collaboration with working life ensures digital learning environments reflect real work tasks and meet evolving industry needs. Also, when evaluating the capability of the workplace to act as a learning environment (e.g. apprenticeship and training agreements), education providers play a key role in identifying the workplace's digital capabilities and can have a significant role in developing the digital development of working life.

6. Continuous Evaluation and Improvement

Regular assessment of digital solutions is needed to ensure added value, pedagogical effectiveness, accessibility and alignment with professional practices. Feedback from learners, teachers and employers should guide ongoing development.

7. Sustainable Funding and Governance

National strategies, legal frameworks and adequate funding are necessary to support long-term, high-quality implementation of digital learning environments across VET systems.

8. International Collaboration and Knowledge Sharing

Continued cooperation among European VET systems can accelerate innovation, strengthen quality and promote mutual learning in developing digital learning environments.

Working Methods and Next Steps

Meeting face-to-face made it easier to have open and varied discussions and to share ideas quickly. Being in the same room helped participants explain things clearly and explore topics more freely than in virtual settings. The kickoff webinar created a shared understanding between participants, which supported active discussions and collaboration during the workshops. Individual presentations between small group sessions helped structure the programme and brought new perspectives to small group work and discussions. By clearly presenting the content, outcomes and structure of the workshop programme in this report, we hope it will inspire others to organise similar collaborative workshops.

Each country is encouraged to reflect the workshop outcomes against its national context to support national development. Although solutions may vary, continued collaboration among European countries is essential, as digitalisation in VET remains a shared priority. International cooperation can accelerate progress, strengthen quality and support mutual learning in developing digital learning environments. During the workshop, participants actively exchanged materials, which are included in the appendices of this report. The results of the project will be published on the EDUFI website and actively communicated to relevant stakeholders. A follow-up webinar was held in autumn 2025 with the workshop participants to discuss the report and how the themes addressed in the workshops have progressed in different countries.

Appendices

Programme: Co-Development Workshop on Quality Assurance in Digital Learning Environments (EQAVET project)- PART I: Online Webinar on 3 March 2025", from 9:00 to 12:00 CET

This webinar is part of Finland's EQAVET project (2023–2026), which aims to improve the quality of vocational education and training in line with the EQAVET framework and recommendations and in line with European educational policy objectives to ensure the quality of VET in dynamic digital learning environments.

The webinar serves as an introduction to the two-day workshop scheduled for 14.–15.5.2025. The aim of the webinar is to provide a **brief general introduction** to current country-specific themes related to the digitalisation of vocational education.

Agenda

08.45–9.00 (CET)	Welcome to test of the connections
09.00–09.30	Welcome and the aim of this webinar and the workshop project Getting to know each other
09.30–10.30	Brief reviews of country-specific situations and current challenges on the topic and a case example of a digital solution. Case examples from different countries, with a total presentation time of <u>15 minutes</u> , including questions and comments. - Finland - Spain - Czech Republic - Austria
10.30–10.40	Short break
10.40–11.55	Brief reviews of country-specific situations and current challenges on the topic and a case example of a digital solution. Case examples from different countries, with a total presentation time of <u>15 minutes</u> , including questions and comments. - Estonia - Denmark - Sweden
11.55–12.00	Final remarks and closing of the webinar

Programme: Co-Development Workshop on Quality Assurance in Digital Learning Environments (EQAVET project), May 14–15, 2025

This workshop is part of Finland's EQAVET project (2023–2026), where we improve the quality of vocational education and training in line with the EQAVET framework and recommendations and in line with European educational policy objectives to ensure the quality of VET in dynamic digital learning environments.

The objectives are to share examples and best practices and to reflect on how to assure quality of digital learning environments in vocational education and training. The outcomes of the workshop will be published online in English and shared with the participants.

The following themes will be discussed, e.g.:

- How are digital learning environments utilised in teaching and learning?
- What kind of elements does the quality of digital learning environment consists of?
- How can we ensure the quality of teaching in digital environments?
- How is collaboration with working life considered in the design and implementation of digital learning environments?
- In which situations and for which content are digital learning environments particularly beneficial?

First Day of the Workshop (Wednesday, 14 May 2025)

Time	Content
08:45–08:55	Arrival at the Finnish National Agency for Education Hakaniemenranta 6, Helsinki
09:00–09:30	Welcome, opening and short introductions from participants Meeting Room OPH 3066 (3rd Floor)
09:30–10:00	South Savo Vocational College (Esedu) project in the tourism sector: DigiTourism: Digitalization and AI in Tourism Project Manager Paula Kaukorinne
10:00–11:45	Small Group Exercise (Part 1/2) Comparing the Use of Digital Solutions in Vocational Education
11:45–12:00	Greeting from Finnish National Agency for Education Director Jarkko Niiranen, Education, Training and Competence
12:00–13:00	Lunch Break Lunch at Lasiranta Restaurant (located on the 1st floor of the building)
13:00–14:00	Small Group Exercise (Part 2/2) Comparing the Use of Digital Solutions in Vocational Education
14:00–14:30	Discussion about the Small Group Exercise and Digital Learning Environments
14:30–15:00	Coffee and a Short Stretching Break

15:00–16:00	Current Developments in the Digitalisation of Education (online) Kari Kivinen, Education outreach expert, European Union Intellectual Property Office
16:00–16:30	Discussion about the Small Group Exercise and Digital Learning Environments
16:30–16:45	Closing of Day 1, open discussion and guidance for the evening and Day 2
18:25	We will meet at 18:25 and the ferry departs at 18:40 from Kauppatori (Helsinki's Market Square). The departure pier is on the eastern side of the square and is marked with HSL signs.
19:00–20:00	Guided Walking Tour, Suomenlinna
20:00–22:00	Dinner at the Restaurant Adlerfelt, Suomenlinna Ferry from Suomenlinna back to Kauppatori departs at 22:19

Second Day of the Workshop (Thursday, 15 May 2025)

08:30–08:45	Meeting at Scandic Paasi Hotel and Getting on the Taxi
08:45–09:15	Taxi Trip to the Vocational Education Provider Omnia in Espoo Kirkkokatu 16, Espoo
09:30–10:45	Vocational Education and Digital Environments at Omnia Representatives of Omnia • Campus tour • Demonstration of digital Nutrition and Bakery learning environments • Results of the VET2Sustain Erasmus+ project survey on using AI in VET
10:45–12:00	Workshop Session Widespread Adoption of Digital Environments and Ensuring Quality Implementation within the Next 3 Years Closing of Day two, Short Feedback Survey and Final Remarks of the Workshop
12:00–13:00	Lunch Break at OMNIA
13:00–	Participants Head Back Home A Shuttle Taxi from Omnia Directly to the Airport Will Be Arranged for the Participants (Journey Will Take Approximately 20–30 minutes).

Referenced Materials from Presentations, Group Exercises and Discussions

Austria, eEducation

Platform supporting teacher digital competence and school digital integration.

<https://eeducation.at/en/?fL=1&cHash=2a383d69d71c2b5d04071f37b044b890>

Austria, OeAD, Digital Skills Office

Support and training for digital skills in Austrian education.

<https://oead.at/en/education-digitisation/digital-skills-office>

Austria, OeAD, Quality control of learning apps

The quality assessment of learning apps supports teachers, students, guardians and others in choosing appropriate digital learning materials.

<https://oead.at/en/education-digitisation/learning-apps>

Czech Republic, Czech National Digital Framework

Digitalisation framework for Czech education curriculum.

<https://digitalizace.rvp.cz/sov>

Czech Republic, DigCompEdu cookbook

Inspiration for developing teachers' digital competencies

<https://digcompedu.npi.cz/>

Estonia, DIGIPädevus

Digital pedagogy development and material sharing platform.

<https://digipadevus.ee/>

Estonia, Education Estonia

Training and resources for digital skills of Estonian teachers.

<https://www.educationestonia.org/teachers-improve-digital-competence/>

Estonia, Haka.ee

Digital pedagogy ecourses platform for teachers.

<https://haka.ee/en/ecourse/>

Estonia, Haka.ee

Self-evaluation Criteria – Quality framework for digital pedagogy self-assessment.

<https://haka.ee/wp-content/uploads/Self-evaluation-quality-criteria-2024-2025.pdf>

Estonia, ProgeTiiger

Programming and robotics education project.

<https://progetiiger.ee/>

Estonia, Sisuloome – E-Koolikott

Platform for creating educational content.

<https://sisuloome.e-koolikott.ee/>

Estonia, TIHUPE

AI programme for students and teachers.

<https://tihupe.ee/>

EU, Digital Education Action Plan

Guidelines for teachers and educators on tackling disinformation and promoting digital literacy through education and training.

<https://op.europa.eu/en/publication-detail/-/publication/a224c235-4843-11ed-92ed-01aa75ed71a1/language-en>

EU, Digital Strategy

AI regulatory framework

<https://digital-strategy.ec.europa.eu/en/policies/ai-talent-skills-and-literacy#1720699867912-1>

EU, Education Area

Launch and consultation of AI literacy framework.

<https://education.ec.europa.eu/event/empowering-learners-for-the-age-of-ai-launch-of-the-draft-ai-literacy-framework-and-stakeholder-consultations>

EU, SELFIE Tool

A tool to support learning in the digital age

<https://education.ec.europa.eu/es/selfie>

EU, VET2Sustain project

Project promoting sustainability in vocational education.

<https://vet2sustain.eu/>

EUIPO, Generative AI in Education

Copyright implications of generative AI in education.

https://euiipo.europa.eu/tunnel-web/secure/webdav/guest/document_library/observatory/documents/reports/2024_Generative_AI_in_Education_infographic/2024_Generative_AI_in_Education_Understanding_copyright_implications.en.pdf

Finland, AOE.fi

Library of Open Educational Resources.

<https://aoe.fi/#/etusivu>

Finland, ESEDU

AI Guide for Microentrepreneurs.

<https://esedu.fi/wp-content/uploads/2025/03/Tekoalyopas-mikroyrittajille-1.pdf>

Finland, ESEDU

Digital Tourism & AI – Project combining AI and digitalisation in tourism education.

<https://esedu.fi/tietoa-meista/hankkeet/digimatkailu-digitaalisuus-ja-tekoaly-matkailualalla/>

Finland, Faktabaari

What Should Teachers Know About the EU AI Act?

<https://faktabaari.fi/edu/what-should-a-teacher-know-about-the-eu-ai-act/>

Finland, Finnish National Agency for Education (EDUFI)

AI Recommendations – Guidelines for AI use in Finnish education.

<https://www.oph.fi/en/artificial-intelligence-education-legislation-and-recommendations>

Finland, SALTO Digital

Useful Materials on Digital Transformation

<https://www.oph.fi/en/salto-digital/materials-salto-digital>

OECD, PISA 2029

Developing AI and media literacy assessments.

<https://www.oecd.org/en/about/projects/pisa-2029-media-and-artificial-intelligence-literacy.html>

SAMR & Chatbots

Article on integrating AI chatbots in teaching.

<https://www.linkedin.com/pulse/samr-ai-chatbots-dr-nick-jackson/>

Spain, Ateca Classroom

Digital classroom pilot project at vocational school.

<https://cpifplosviveros.es/aula-ateca/>

Spain, Digital FP Plan

Digital strategy for vocational education in Spain

<https://espanadigital.gob.es/en/lines-action/digital-fp-plan>

Spain, Digital Plan

Madrid regional digital plan for schools.

<https://gestion3.madrid.org/bvirtual/BVCM051277.pdf>

Spain, INTEF

Best practices in Spanish schools.

<https://intef.es/tag/buenas-practicas/>

Spain, INTEF

Digital transformation plan for schools.

https://intef.es/wp-content/uploads/2020/07/2020_0707_Plan-Digital-de-Centro_-INTEF.pdf

Spain, Intef.es

Digital education and skills plan.

<https://intef.es/Noticias/plan-de-digitalizacion-y-competencias-digitales-del-sistema-educativo-plan-digedu/>

Spain, intef.es

Good digital education practices.

<https://intef.es/tag/buenas-practicas/>

Spain, Innovae

Reasons for using VR in vocational education.

<https://www.innovae.com/razones-realidad-virtual-formacion-profesional/>

Spain, Invelon

VR Simulators – Commercial VR simulators for professional training.

<https://invelon.com/en/vr-simuladors/>

Spain, MetaMedics

VR/AR medical training solutions.

<https://techmakers.es/metamedics>

Spain, VRFP

Platform for VR/AR simulators in vocational education.

<https://vrfp.es/>

Spain, VR/AR Video

VR/AR immersive learning tech for vocational training.

<https://www.youtube.com/watch?v=U6ZPBpLvTkQ>

TeachAI.org

Platform supporting teachers in AI integration.

<https://www.teachai.org/>