EVALUATION OF eLEARNING PLATFORMS FOR ENHANCING DIGITAL COMPETENCIES OF VOCATIONAL EDUCATION AND TRAINING (VET) EDUCATORS: A COMPARATIVE STUDY

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Abstract

This paper explores the integration of eLearning platforms in Vocational Education and Training (VET), focusing on enhancing digital competencies among educators. Through systematic evaluation using a developed rubric, three eLearning platforms were assessed for their alignment with pedagogical goals and learner needs. Findings revealed strengths and areas for improvement in course design, learning objectives, assessment strategies, and accessibility. Recommendations were provided for VET teachers, institutions, and policymakers to leverage technology effectively for educational enhancement. Overall, the study emphasizes the importance of informed decision-making and continuous improvement in fostering engaging and inclusive digital learning environments in VET settings.

Introduction

In the digital age, the role of educators, particularly those in Vocational Education and Training (VET), has undergone significant evolution. With the rapid integration of digital technologies into everyday life and work, VET educators are tasked not only with keeping pace with technological advancements but also with nurturing the digital skills of their students. However, this transition is not without its challenges. VET teachers often grapple with varying levels of digital literacy, limited access to technology infrastructure and resources, and the constant need for professional development to remain adept in an ever-changing technological landscape.

Despite these challenges, digital competence frameworks emerge as indispensable tools in equipping VET educators with the necessary skills and knowledge to navigate the digitalized educational landscape effectively. These frameworks offer structured guidelines for skill development and provide avenues for continuous professional growth. By addressing the specific needs and challenges faced by VET educators, digital competence frameworks play a pivotal role in ensuring the delivery of high-quality, future-oriented education.

The purpose of this paper is to critically evaluate the effectiveness of eLearning platforms in developing digital competencies among VET educators. Drawing upon

the Quality Matters standards and the DigCompEdu framework, a comprehensive rubric has been developed to assess the alignment of eLearning platforms with the digital competence needs of VET educators. Through this evaluation, the paper aims to provide insights into the strengths and limitations of eLearning platforms in fostering digital competencies, offering valuable implications for practice and policy.

Importance of Digital Competence Frameworks for VET Educators

Digital competence frameworks serve as indispensable tools for VET educators, offering a multitude of benefits:

Guidance on Skill Development: These frameworks provide clear guidelines on the digital skills and competencies essential for effective teaching in the digital age. For example, frameworks like DigCompEdu (Redecker, 2017) outline specific competencies such as digital content creation and communication, guiding educators on the skills they need to acquire and develop to enhance their teaching practices.

Standardization and Benchmarking: By establishing a standardized set of competencies, digital competence frameworks enable educators to benchmark their skills against established criteria. This promotes consistency in digital education across different contexts and regions, facilitating the exchange of best practices and ensuring quality assurance in digital teaching methods.

Support for Continuous Professional Development: Digital competence frameworks play a crucial role in supporting educators' ongoing professional development. They identify areas for improvement based on evolving technological trends and pedagogical needs, providing educators with targeted pathways for skill enhancement. For instance, frameworks like the UNESCO-UNEVOC framework (UNESCO-UNEVOC, 2022) offer toolkits and resources to help VET educators assess their digital skills and access relevant training opportunities.

Enhancement of Teaching and Learning: By integrating digital tools and methodologies, these frameworks empower educators to enhance their teaching strategies, making learning more engaging and effective for students. For example, frameworks like the UNICEF Digital Competency Framework (UNICEF Regional Office for Europe and Central Asia (EACARO), 2022). for Teachers emphasize the use of innovative digital technologies to promote active learning and critical thinking skills among students.

In summary, digital competence frameworks serve as invaluable resources for VET educators, offering guidance, standardization, support for professional development, and opportunities for enhancing teaching and learning in the digital era.

Digital Competence Frameworks

Several notable frameworks have been developed to support the digital competence of VET educators.

DigCompEdu (European Commission)

The Digital Competence Framework for Educators (DigCompEdu) is a scientifically validated framework developed by the European Commission. It describes what it means for educators to be digitally competent and provides a comprehensive reference for supporting the development of digital competences in educators across Europe. DigCompEdu addresses educators at all levels, from early childhood education to higher education and adult learning, encompassing general and vocational education and training, special needs education, and non-formal learning contexts. The framework organizes digital competences into 22 competencies across six key areas (Redecker, 2017).

Figure 1

The DigCompEdu framework (Redecker, 2017)
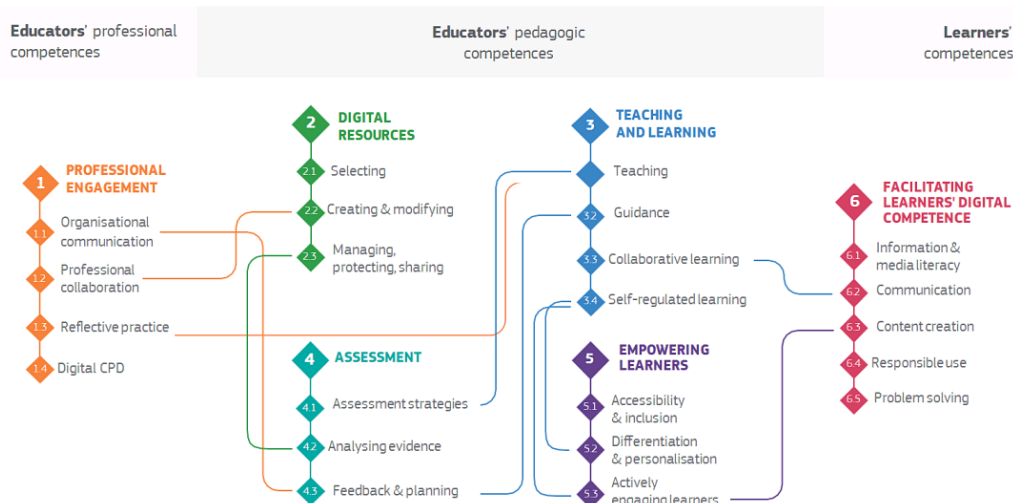
UNESCO-UNEVOC Framework

The UNESCO-UNEVOC framework focuses on the development of digital skills for VET teachers and trainers. It supports VET providers by addressing the impacts of digitalization on VET, identifying new digital skills and competencies required, and providing toolkits to help VET providers assess their needs and progress. This framework emphasizes the importance of equipping VET educators with the skills needed to effectively use digital tools and technologies in their teaching practices (UNESCO-UNEVOC, 2022).

UNICEF-ECARO Digital Competency Framework for Teachers

The UNICEF framework aims to empower teachers, improve online teaching, and promote innovation in education. It supports stakeholders in fostering educators' digital competences to ensure inclusive and quality education for all children, with a particular focus on the most vulnerable. The framework promotes the development of 21st-century digital skills and competencies necessary for professional growth, equity, and inclusion (UNICEF Regional Office for Europe and Central Asia (EACARO), 2022).

Significance of Digital Competence Frameworks

Collectively, these frameworks contribute to the digital transformation of education by providing VET educators with guidance and resources to navigate the challenges and opportunities of a digitalized world. By adhering to these frameworks, VET educators can enhance their teaching practices, better prepare their students for the future, and contribute to the overall improvement of the educational landscape.

Methodology

In today's dynamic educational environment, integrating digital tools and platforms is essential, particularly within the context of initiatives such as Erasmus+ that promote innovation and collaboration. This study aims to critically investigate the extent to which e-learning platforms, developed through Erasmus+ projects, align with the European Digital Competences for Teachers (DigCompEdu) (Redecker, 2017) framework in fostering the digital competences of VET teachers. To achieve these aims, the research adopts a descriptive comparative research design, focusing on the digital competences required by VET teachers.

Research Objectives

Objective 1: Evaluation of Alignment with the DigCompEdu Framework

- Assessment of Alignment: Evaluate the degree to which the e-learning platforms developed in Erasmus+ projects align with the DigCompEdu framework.
- Exploration of Responsiveness: Investigate how effectively these platforms address the key dimensions and standards described in DigCompEdu.

Objective 2: Development of an Analytical Alignment Rubric

- Creation of an Analytical Rubric: Develop a rubric based on Quality Matters standards, integrating relevant criteria from DigCompEdu to assess the alignment of e-learning platforms.
- Validation of the Rubric: Ensure the rubric is clear, systematic, and applicable to different types of e-learning content.

Objective 3: Analysis of the Evaluation Results and Identification of Positive and Negative Features

- Examination of Collected Data: Analyze data collected using the rubric to evaluate the alignment of e-learning platforms with DigCompEdu.
- Identification of Characteristics: Determine the positive and negative features of the evaluated platforms concerning their alignment with DigCompEdu standards.
- Utilization of Qualitative and Quantitative Techniques: Apply both qualitative and quantitative analysis techniques to accurately interpret the evaluation results.

Objective 4: Provide a Validated Quality Assurance Tool for the Evaluation of E-learning Platforms

- Development of a Comprehensive Rubric: Create a detailed rubric that includes key criteria for assessing the alignment of e-learning platforms with DigCompEdu.
- Ensuring Reliability and Validity: Conduct rigorous testing and validation procedures to ensure the rubric's reliability and validity.
- Dissemination of the Rubric: Share the validated rubric with the VET community, including teachers and institutions, to aid in informed decision-making when selecting appropriate e-learning platforms.
- Provision of Guidelines and Resources: Offer guidelines and resources for effectively using the rubric to assess platform suitability and inform digital skills training initiatives in the VET sector.

This research holds significant value for educators, platform developers, and policymakers involved in digital education. Its findings can guide the enhancement

of e-learning platforms, ensuring their effectiveness in promoting the digital competence of VET teachers. Additionally, the insights gained from this study can shape future strategies for designing and improving digital learning tools, thereby fostering a more inclusive and effective learning environment for VET educators.

Data Collection Process

For the purposes of this study, which focuses on eLearning platforms designed to enhance the digital competencies of VET educators in Greece, data collection was conducted using the Erasmus+ Results Platform (European Commission, Directorate-General for Education, Youth, Sport and Culture, 2017). The selection process was guided by the following criteria to ensure relevance and quality:

1. Project Status - Completed: Only completed projects were considered, as they have undergone a comprehensive three-stage evaluation process, including selection for funding, mid-term evaluation, and final evaluation. This ensures the quality and impact of the results.
2. Actions - Key Action 2: Cooperation among organizations and institutions, particularly those involved in the production of open educational resources, was prioritized for this study.
3. Type of Action - VET and Adult Education: Actions related to vocational education and training (VET) and adult education were chosen due to their focus on training for VET teachers, digital readiness initiatives, and strategic partnerships spanning multiple sectors.
4. Sector - VET: The VET sector was specifically targeted to align with the study's focus on vocational education and training.
5. Keywords: To refine the search results, keywords such as "Digital Competence" and "Digital Skills" were utilized.

Further processing of the search results was conducted manually in an Excel workbook, applying the following additional criteria:

1. Year of Project Approval: Projects approved in 2021 and 2022 were selected to ensure the relevance and currency of the data.
2. Participation of Greece: Projects involving Greek participation were prioritized to maintain the study's focus on enhancing digital competencies of VET educators in Greece.
3. Project Topic: Projects that included the terms "digital skills" or "digital competences" in their descriptions were retained. Additionally, projects related to the initial and in-service training of VET teachers were included to explore the training offered pertaining to digital skills.

In the final phase, projects were further narrowed down based on the availability of eLearning platforms in the Greek language.

Following this meticulous data collection methodology, the validation of the rubric was conducted by evaluating the identified eLearning platforms.

Platforms under Study

XR_SKILL: Enhancing Soft Skills through Extended Reality in the Post-COVID Era

The XR_SKILL learning platform utilizes Virtual Reality (VR) technology to provide self-paced learning modules focused on enhancing soft skills. With five modules, it addresses topics such as stress management, emotional intelligence, and game-based learning for skill development. Notably, it features a dedicated game to aid teachers and future educators in improving their time and stress management abilities (XR_Skill, 2023).

DigiREACT: Experience Brewing Assistant for Vocational Training

DigiREACT is an Employee Experience Platform (EXP) designed to facilitate digital transformation in corporate training. Through a blend of gamification and AI technologies, it offers personalized training pathways, progress tracking, and performance analytics. Aimed at enhancing workforce productivity, the platform empowers trainers to adapt training content to evolving learning needs and styles, facilitating change management within hybrid teams (DigiREACT, 2022).

GROOVE: Digital Transformation of the VET Sector

GROOVE serves as an online learning space and resource hub for VET providers, teachers, trainers, and stakeholders. It offers instant access to a diverse range of learning resources and Open Educational Resources (OERs) in a user-friendly format. Hosting training materials aligned with the DigComp framework, GROOVE aims to enhance the digital competence of VET educators and trainers through accessible and well-organized content (GROOVE, 2021).

Rubric Development

The rubric development process is based on the specifications with the relevant criteria developed by Quality Matters (2015) for its Continuing and Professional Development Rubric, chosen for their established rigor and applicability to digital education. These criteria were adapted for this study to align with the DigCompEdu framework, ensuring relevance to the specific context of VET educator digital competency assessment.

Data Analysis

To gauge the effectiveness of e-learning platforms in fostering digital competencies among VET educators, we embarked on a comprehensive analysis utilizing our custom-built rubric. Designed to assess various dimensions of each platform, the rubric delves into elements such as course organization, learning targets, assessment methods, educational materials, learner involvement, technology integration, support features, and accessibility. In the following sections, we offer a condensed overview of the main insights gleaned from the evaluation of the selected platforms, shedding light on their adherence to the rubric criteria.

XR-Skills platform

Course Design and Navigation: The platform offers basic navigation features but lacks comprehensive instructions and clear statements of purpose, policies, and contact information, potentially causing confusion for learners.

Educational Content and Learning Objectives: The platform lacks clearly defined learning objectives, expected outcomes, and alignment with professional digital competences for teachers, indicating insufficient planning and preparation.

Assessment and Progress Tracking: Limited assessment options are available, with certificates issued without evaluating learners' progress. The absence of varied assessment methods hinders effective progress tracking.

Engagement and Interaction: Opportunities for learner interaction and collaboration are minimal, impacting the overall engagement and active learning experience.

Course Technology: The platform lacks integrated tools or technologies to support learning objectives, hindering effective use of technology for educational purposes.

Support Services: Clear instructions and descriptions of available technical support are missing, potentially impeding learners' access to necessary assistance and resources.

Accessibility and Usability: While navigation and readability are satisfactory, the platform lacks alternative access formats and multimedia support, limiting accessibility for diverse learners.

Summary of XR-Skills features. Overall, the XR-Skills platform exhibits strengths in design and usability but requires significant improvements in defining

learning objectives, assessment methods, promoting engagement, integrating technology, providing support services, and enhancing accessibility.

DigiREACT platform

Course Design and Structure: DigiREACT excels in presenting clear course objectives and structure, but lacks detailed policies, prerequisites, and clear communication channels with course leaders. The absence of instructions in Greek may pose challenges for non-English speakers.

Learning Objectives: While providing well-defined and measurable objectives, DigiREACT could improve alignment with learner perspectives and explicit linkage to course activities. There's a need to directly reference the DigCompEdu framework.

Assessment Strategies: DigiREACT offers various assessment tools but lacks specific criteria and feedback, potentially causing confusion about course completion requirements.

Educational Materials: The platform's educational materials effectively contribute to learning objectives, yet there's ambiguity in distinguishing mandatory and optional materials, and incomplete usage instructions may pose challenges for learners.

Learning Activities: DigiREACT includes diverse learning activities that promote interaction and active learning, supporting the achievement of learning objectives effectively.

Course Technology: While engaging learners through interactive and gamified activities, DigiREACT fails to provide privacy policy links for all external tools, raising concerns about data security and privacy.

Support Services: While offering clear instructions for accessing educational resources, DigiREACT lacks technical support and comprehensive referrals to external resources, potentially hindering learner success.

Accessibility and Usability: Although designed for ease of navigation and readability, the platform lacks sufficient accommodation for learners with disabilities and accessibility information for required technologies. Additionally, course guides are only available in English.

Summary of DigiREACT features. Overall, DigiREACT provides a comprehensive and interactive learning environment with clear course objectives,

diverse learning activities, and effective use of technology. While the platform excels in presenting course structure and educational materials, improvements are needed in providing detailed policies, clearer assessment criteria, better support services, and enhanced accessibility for learners with disabilities. Addressing these areas will ensure a more inclusive and supportive learning experience for all users.

The GROOVE Platform

Course Design and Learner Support: The GROOVE platform effectively introduces the structure and purpose of each chapter and includes a useful digital action planning function. However, it lacks clear instructions for starting the course and information on how learners can contact support staff, limiting its user-friendliness and effectiveness.

Learning Objectives: While the platform clearly articulates learning objectives at the chapter level, it needs to clarify course-level objectives and explicitly link these objectives to course activities to enhance the overall learning experience.

Assessment Strategies: The platform provides tools for monitoring learner progress and knowledge assessment through tests. However, it falls short in detailing learning objectives and competences, lacks specific assessment criteria, and offers a limited variety of assessment tools, reducing the effectiveness of the assessments.

Educational Materials: The GROOVE platform aligns learning materials with the stated objectives but needs improvement in explaining the purpose and use of materials, distinguishing between mandatory and optional content, and ensuring that teaching materials are properly referenced for transparency and reliability.

Learning Activities: The platform promotes learning objectives and active learning but lacks sufficient opportunities for interaction and engagement, which could enhance the overall learning experience and effectiveness.

Course Technology: The platform ensures access to required technologies and promotes active learning. However, it needs to diversify and update the technologies used and provide access to privacy policies to improve technological support and the overall quality of the learning experience.

Support Services: The GROOVE platform does not provide clear guidance on accessing technical support or collaboration resources, limiting learners' ability to receive necessary assistance and support, potentially impacting their learning outcomes.

Accessibility and Usability: While the platform is easy to navigate and offers good readability, it lacks alternative access forms and multimedia elements that enhance usability and accessibility for all learners.

Summary of GROOVE features. The GROOVE platform offers a structured and navigable learning environment with clear chapter-level objectives and useful digital action planning. However, it requires significant improvements in course-level objective clarity, assessment strategies, learner support services, technology use, and accessibility to provide a more comprehensive and effective learning experience.

Discussion

The evaluation process meticulously scrutinized eLearning platforms, utilizing a rubric composed of predefined criteria. These criteria encompassed various facets, including course design clarity, delineation of learning objectives, assessment methodologies, supportive learning materials, interactivity features, course technology, availability of support services, and accessibility and usability considerations. Through this systematic approach, each platform underwent comprehensive assessment, enabling an objective comparison.

Implications of the Findings

The findings unearthed valuable insights into the strengths and weaknesses of the evaluated eLearning platforms concerning the augmentation of digital competencies among VET educators. These insights serve as pivotal pillars for informed decision-making regarding the selection of platforms conducive to achieving pedagogical objectives and addressing learner needs. Furthermore, the identification of specific improvement areas presents opportunities for refining eLearning platforms to better align with the evolving demands of VET education.

Integration with Research Objectives

The discussion of evaluation findings harmonizes seamlessly with the research objectives, which aimed to gauge the aptness of eLearning platforms in bolstering digital competencies among VET educators. By meticulously examining the extent to which the predefined criteria were met by each platform, this study contributes significantly to the broader discourse on effective strategies for infusing technology into vocational education and training.

Future Directions

Drawing upon the insights gleaned from this evaluation, future research endeavors could delve into innovative methodologies aimed at addressing the identified limitations of eLearning platforms. Moreover, continual monitoring and evaluation efforts are imperative to ensure the sustained efficacy and relevance of these platforms in catalyzing the digital transformation of VET teaching practices.

Conclusion

The evaluation of the e-learning platforms using the developed rubric provided valuable information on their effectiveness in enhancing the digital competences of VET teachers. Through a systematic evaluation of various criteria, including clarity of course design, description of learning objectives, assessment strategies and accessibility, among others, the strengths and weaknesses of each platform were identified, contributing to a deeper understanding of their suitability for VET.

Therefore, it was shown that the rubric developed offers the following benefits to VET teachers:

a) Objective Evaluation: This benefit underscores the importance of having clear evaluation criteria, which enables educators to assess e-learning platforms objectively and consistently. Objective evaluation is crucial for ensuring fairness and accuracy in the assessment process.

b) Systematic Analysis: Highlighting the rubric's role in facilitating systematic analysis emphasizes its utility in thoroughly examining various aspects of e-learning platforms. This structured approach helps educators identify strengths and weaknesses more effectively.

c) Transparency and Reliability: Ensuring transparency and reliability in the assessment process is essential for establishing trust and credibility. By utilizing a predefined rubric, educators can enhance the transparency of their evaluations, leading to more reliable outcomes.

d) Professional Development: The rubric not only serves as a tool for evaluation but also offers a valuable opportunity for professional development. Engaging with the rubric enhances educators' understanding of quality criteria and fosters continuous improvement in their teaching practices related to e-learning platforms.

Overall, these benefits demonstrate how the rubric contributes to the enhancement of VET educators' skills and practices in evaluating and selecting e-learning platforms, ultimately improving the quality of digital education delivery.

Recommendations for VET Teachers

Based on the findings from the data analysis and the use of the rubric, the following recommendations are proposed for VET teachers regarding the selection of e-learning platforms aimed at enhancing their digital competences:

Clear Course Design: Choose an e-learning platform that provides clear instructions for starting and accessing different elements of the course.

Description of Learning Objectives: Select platforms that allow for a defined and measurable description of learning objectives and competences.

Assessment Strategies: Opt for platforms that provide specific and descriptive assessment criteria and offer multiple opportunities to monitor learners' progress.

Materials Supporting Learning Objectives: Choose platforms with a variety of educational materials that are clearly linked to the learning objectives and are easily accessible.

Supporting Interaction: Select platforms that promote active participation and interaction of learners through engaging activities and tasks.

Technology Support: Ensure the platform supports the effective use of technology to achieve learning objectives and provides easy access to it.

Access to Support Services: Choose platforms that provide clear guidance and information on available support services.

Accessibility and Usability: Opt for platforms that are user-friendly, easy to navigate, and provide alternative means of access for all learners.

Implications for Practice

In today's rapidly evolving educational landscape, the integration of technology into vocational education and training represents a pivotal opportunity for institutions to enhance teaching effectiveness and elevate learner outcomes. The comprehensive evaluation conducted in this study offers invaluable insights into the strengths and weaknesses of various eLearning platforms, providing VET institutions with a roadmap for selecting the most suitable platforms tailored to their unique needs and objectives. By leveraging these findings, institutions can make informed decisions that align with their pedagogical goals, resource constraints, and technological infrastructure, thereby maximizing the impact of digital tools in the learning environment.

Furthermore, the implications extend beyond platform selection to encompass broader considerations regarding digital integration and professional development. As VET institutions embrace eLearning platforms that align with the DigCompEdu standards, they not only enhance the digital competences of their educators but also cultivate a culture of innovation and adaptability. Through targeted training initiatives and ongoing support mechanisms, institutions can empower educators to harness the full potential of technology in their teaching practices, facilitating engaging and interactive learning experiences for students.

Moreover, the implications extend to policy and strategic planning within the VET sector. By recognizing the significance of digital competence development and investing in infrastructure and resources to support eLearning initiatives, policymakers can position VET institutions for long-term success in a digitally driven society. By fostering collaboration among stakeholders, sharing best practices, and incentivizing innovation, policymakers can create an ecosystem conducive to continuous improvement and excellence in vocational education and training.

In conclusion, the implications drawn from this study underscore the transformative potential of technology in VET settings and highlight the critical role of informed decision-making in leveraging digital tools for educational enhancement. By embracing these implications, VET institutions can pave the way for a future where technology serves as a catalyst for empowering learners, enriching teaching practices, and driving positive outcomes in vocational education and training.

Closing Remarks

In conclusion, this study has shed light on the critical role of informed decision-making and continuous improvement in leveraging technology for educational enhancement within vocational education and training (VET) settings. By evaluating eLearning platforms through a comprehensive rubric and providing recommendations tailored to VET teachers, we have taken a significant step towards empowering educators in their digital competence development journey.

The findings of this research underscore the importance of aligning eLearning platforms with pedagogical goals and learner needs, emphasizing clear course design, robust assessment strategies, and supportive technology integration. Through systematic evaluation and thoughtful consideration of these recommendations, VET institutions can foster engaging and inclusive digital learning environments conducive to improved teaching effectiveness and enhanced learner outcomes.

As we move forward, it is imperative to recognize the ongoing evolution of technology and its impact on educational practices. Therefore, embracing a mindset of continuous improvement and adaptation is paramount. By staying abreast of emerging trends and best practices in eLearning, VET educators can remain at the forefront of pedagogical innovation, ensuring the delivery of high-quality education that meets the demands of the modern workforce.

In essence, this study serves as a testament to the transformative potential of technology in VET settings when coupled with informed decision-making and a commitment to excellence. By harnessing the insights gleaned from this research and embracing a culture of continuous improvement, we can pave the way for a future where digital innovation enriches the teaching and learning experience for all stakeholders in vocational education and training.

References

DigiREACT. (2022). expeRience brEwing Assistant for voCational Training: the ultimate e-VETtrainer guide for DIGItal transformation. European Commission Project ID: 2021-1-DE02-KA220-VET-000032967. Retrieved from https://www.digireact-project.eu/

European Commission, Directorate-General for Education, Youth, Sport and Culture. (2017). *Erasmus+ project results platform*. Publications Office of the European Union. Retrieved from https://data.europa.eu/doi/10.2766/80295

GROOVE. (2021). DiGital tRansfOrmatiOn of the Vet sEctor. European Commission Project ID: 2021-1-CY01-KA220-VET-000033254. Retrieved from https://grooveproject.eu/

Quality Matters. (2015). *Continuing Education and Professional Development (CPE) Rubric*. Retrieved from https://www.qualitymatters.org/qa-resources/rubric-standards/cpe-rubric

Redecker, C. (2017). *European framework for the digital competence of educators: DigCompEdu. Y. Punie (Ed.),* EUR 28775 EN. Publications Office of the European Union. DOI:10.2760/159770, JRC107466

UNESCO-UNEVOC. (2022). *Digital Transformation in TVET*. Retrieved from https://unevoc.unesco.org/home/Digital+Transformation+in+TVET

UNICEF Regional Office for Europe and Central Asia (EACARO). (2022). *Educators' Digital Competence Framework*. Retrieved from https://www.unicef.org/eca/reports/educators-digital-competence-framework

XR_Skill. (2023). Enhancing soft skills through extended Reality in the post-COVID era. European Commission Project ID: 2021-1-SE01-KA220-VET-000030106. Retrieved from xrskill.infoproject.eu

Author's Note

This paper is derived from the author's undergraduate thesis. The research was conducted as part of the requirements for the undergraduate degree program, and the findings and methodologies reflect the academic objectives of that program.

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Appendix 1

The rubric is based on the Quality Matters Non-annotated Standards from the QM Continuing and Professional Education Rubric, Second Edition, including eight General Standards. It has been adjusted to meet the needs of VET educators to quickly and effectively evaluate if a course developed on an eLearning platform meets their needs for the development of student digital competencies based on the DigCompEdu framework that organizes digital competences into 22 competencies across six key areas.

General Standards and Criteria		Score		
General Standard	**Criteria**	**1**	**2**	**3**
General Standard 1: Course Overview and Introduction **The overall design of the course is made clear to the learner at the beginning of the course.**	1.1 Instructions make clear how to get started and where to find various course components.			
	1.2 Learners are introduced to the purpose and structure of the course.			
	1.3 Course, institutional, or organizational policies with which the learner is expected to comply are clearly stated, or a link to current policies is provided.			
	1.4 Minimum technology requirements are clearly stated, and instructions for use are provided.			
	1.5 Prerequisite knowledge in the discipline and/or any required competencies are clearly stated.			
	1.6 Minimum technical skills expected of the learner are clearly stated.			
	1.7 The course includes information on who the trainee can contact with questions and how to contact that person.			
General Standard 2: Learning Objectives (Competencies) **Learning objectives or competencies describe what learners will be able to do upon completion of the course.**	2.1 The course learning objectives, or course/program competencies, describe outcomes that are measurable.			
	2.2 The module/unit learning objectives or competencies describe outcomes that are measurable and consistent with the course-level objectives or competencies.			
	2.3 All learning objectives or competencies are stated clearly and written from the learner's perspective.			
	2.4 The relationship between learning objectives or competencies and course activities is clearly stated.			

General Standards and Criteria		Score		
General Standard	**Criteria**	**1**	**2**	**3**
	2.5 The learning objectives or competencies are suited to the purpose or level of the course.			
	2.6 The learning objectives address at least one of the 22 professional digital competences for teachers.			
	2.7 Indicates which teachers' professional digital competences are covered by the course.			
General Standard 3: Assessment and Measurement **Assessment strategies are integral to the learning process and are designed to evaluate learner progress in achieving the stated learning objectives or mastering the competencies.**	3.1 The assessments measure the stated learning objectives or competencies.			
	3.2 Course information specifies how successful completion of the course will be recognized.			
	3.3 Specific and descriptive criteria are provided for the evaluation of learners' work and are tied to the course policy for determination of successful course completion.			
	3.4 The assessment instruments selected are sequenced, varied, and suited to the learner work being assessed.			
	3.5 The course provides learners with multiple opportunities to track their learning progress.			
General Standard 4: Instructional Materials **Instructional materials enable learners to achieve stated learning objectives or competencies.**	4.1 The instructional materials contribute to the achievement of the stated course and module/unit learning objectives or competencies.			
	4.2 Both the purpose of instructional materials and how the materials are to be used for learning activities are clearly explained.			
	4.3 All instructional materials used in the course are appropriately cited.			
	4.4 The instructional materials are current.			
	4.5 A variety of instructional materials is used in the course.			
	4.6 The distinction between required and optional materials is clearly explained.			
General Standard 5: Course Activities and Learner Interaction **Course activities facilitate and support learner interaction and engagement.**	5.1 The learning activities promote the achievement of the stated learning objectives or competencies.			
	5.2 Learning activities provide opportunities for interaction that support active learning.			

General Standards and Criteria		Score		
General Standard	**Criteria**	**1**	**2**	**3**
General Standard 6: Course Technology **Course technologies support learners' achievement of course objectives or competencies.**	6.1 The tools used in the course support the learning objectives or competencies.			
	6.2 Course tools promote learner engagement and active learning.			
	6.3 Technologies required in the course are readily obtainable.			
	6.4 The course technologies are current.			
	6.5 Links are provided to privacy policies for all external tools required in the course.			
General Standard 7: Learner Support **The course facilitates learner access to support**	7.1 The course instructions articulate or link to a clear description of the technical support offered and how to obtain it.			
	7.2 Course instructions articulate or link to the institution or organization's accessibility policies and services.			
General Standard 8: Accessibility and Usability **The course design reflects a commitment to accessibility and usability for all learners.**	8.1 Course navigation facilitates ease of use.			
	8.2 Information is provided about accessibility of all technologies required in the course.			
	8.3 The course provides alternative means of access to course materials in formats that meet the needs of diverse learners.			
	8.4 The course design facilitates readability.			
	8.5 Course multimedia facilitate ease of use.			