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LAW ENFORCEMENT EDUCATION AND RESEARCH

Education in Police Training

A Case Study of the European Training Platform on Domestic Violence[1]

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The Covid–19 pandemic has significantly impacted police higher education in Portugal, necessitating a shift to web-based learning environments. This study underscores the transformative potential of digital education in improving police training using the European Training Platform on Domestic Violence as a case study. The study employs a multiple-methods approach, combining a case study analysis of the platform's architecture, modules and features with a scoping review of the literature on digital education in police training. It draws on constructivist principles and the SCRUM framework to analyse the platform's pedagogical approach. The analysis highlights the platform's strengths in promoting active engagement, critical thinking and continuous professional development. It also reveals the potential of digital education to foster collaboration, knowledge sharing and proactive intervention in addressing domestic violence. This research underscores the transformative potential of digital education for police training, offering insights into how digital platforms can be leveraged to enhance professional development and improve responses to critical issues like domestic violence.

Keywords: police training, e-learning, IMPROVE, domestic violence

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Introduction

The landscape of police work is in constant flux, shaped by evolving societal demands, technological advancements and the emergence of new forms of criminality. This dynamic environment necessitates a continuous re-evaluation of police education and training to ensure that officers are equipped with the knowledge, skills and competencies required to effectively address these challenges.[4] Traditional training models, often characterised by their emphasis on physical conditioning and rote learning, are proving insufficient in preparing officers for the complexities of modern policing.

Digital education models offer a promising avenue for transforming police training by providing innovative and engaging learning experiences. These models leverage technology to create interactive and immersive learning environments that cater to diverse learning styles and promote deeper understanding. E-learning platforms, virtual reality simulations and online collaborative tools are just some examples of how technology can be integrated into police training to enhance its effectiveness and adjusted to society challenges.[5]

The shift towards digital education, hybrid models and the new educational ecosystem is not merely a matter of adopting new technologies; it represents a fundamental shift in pedagogical approaches.[6] Constructivist theory, which emphasises active learning and knowledge construction through experience and interaction, provides a theoretical framework for designing and implementing digital learning environments that foster critical thinking, problem-solving and collaboration.

In this context, the SCRUM principle, a framework widely used in agile software development, emerges as a valuable tool for structuring and managing digital learning experiences. SCRUM emphasises iterative progress, close collaboration and continuous feedback, enabling learners to actively participate in the learning process and adapt to changing requirements. The application of SCRUM in police education can facilitate the development of essential skills such as critical thinking, problem-solving and teamwork, which are vital for effective policing in the 21st century.

This paper delves into the transformative potential of digital education in police training, focusing on the European Training Platform on Domestic Violence[7] as a case study. This platform exemplifies how technology can be leveraged to create engaging and accessible learning experiences for police officers, providing them with the knowledge and skills necessary to effectively respond to domestic violence incidents.

Through a comprehensive analysis of the platform's architecture, modules and features, we explore how it integrates constructivist principles and the SCRUM framework to foster active learning and skill development. Furthermore, we examine the platform's role in promoting collaboration and knowledge sharing among police officers across

[4] Felgueiras 2024; Morgado–Felgueiras 2021.
[5] Morgado–Felgueiras 2021.
[6] Andryukhina et al. 2021; Aparício–Bacao 2013; Chen et al. 2012; Chen et al. 2010; Guo et al. 2016; Schwarz et al. 2015; Sequeira–Morgado 2022; Shao 2018; Steiner et al. 2013; Wolff et al. 2021.
[7] See European Training Platform on Domestic Violence s. a.

Europe, highlighting its potential to enhance cross-border cooperation in addressing domestic violence.

By showcasing the European Training Platform on Domestic Violence as a successful example of digital education in police training, this paper aims to inspire further exploration and adoption of innovative pedagogical approaches that leverage technology to equip officers with the skills and competencies needed to navigate the complexities of modern policing.

Theoretical framework: a SCRUM-inspired approach

This study's theoretical foundation is grounded in constructivism, a learning theory that posits knowledge acquisition as an active and constructive process. Learners build understanding through experiences and interactions, rather than through passive reception.

Sprint 1: Foundational learning theory

The primary theoretical framework is constructivism, which posits that learning is an active and constructive process. Learners build knowledge through experiences and interactions, not through passive reception. This aligns with SCRUM principles that emphasise collaboration, critical thinking and problem-solving as key components of effective learning environments. This is particularly relevant to police education, where the development of physical and mental capabilities is essential.

Sprint 2: Digital ecosystems and learning environments

The study also incorporates the concept of digital ecosystems, where technology, pedagogy and space intersect to create dynamic learning environments.[8] This perspective acknowledges the importance of both biotic factors (learners, teachers, content) and abiotic factors (technologies) in shaping digital education. The evolution of these environments is marked by a shift from traditional teaching methods to the integration of e-learning, online learning and immersive technologies.

- Evolution of learning: Traditional teaching has long incorporated technological advancements, albeit gradually.[9] The growth of e-learning and events like the SARS-CoV-2 pandemic[10] have accelerated the adoption of digital education.
- Key concepts and definitions: Key concepts such as e-learning, distance education, web-based learning, digital education systems and online learning are explored. These concepts involve computer-assisted instruction, synchronous and asynchronous learning[11] and networked learning systems that support

[8] Moreira et al. 2020.
[9] Sun et al. 2008.
[10] Sun et al. 2008; Murphy 2020.
[11] Zinn 2000.

cooperation and knowledge sharing.[12] Digital learning ecosystems involve the interaction of inhabitants, digital organisms and the digital environment.[13]

- Technology's role: The knowledge shared between givers and receivers is facilitated by technology.[14] While online learning focuses on knowledge acquisition through the internet,[15] e-learning is supported by learning technologies, instructional strategies and pedagogical models. Instructional strategies like collaboration, articulation, reflection, problem-solving and exploration are enabled by learning technologies such as communication tools, multimedia tools and management systems. Digital learning also intersects with open education practices and access to networks.[16]
- Learning diversity and flexibility: Digital education environments aim to augment individuals and organisations. The use of IoT can enrich the learning environment. Learning can be activist, reflector, theorist, or pragmatist, aligning with Kolb's learning cycle.[17] Distance learning has evolved from paper-based media to self-paced, individualised instruction using technology.[18] These concepts draw from behaviourism, cognitivism and humanism, personalising knowledge through interactive synchronous packages and virtual face-to-face environments.[19]
- Benefits and evolution: The evolution of these definitions is ongoing due to technological advancements, increasing accessibility and the reduction of time, physical distance and spatial restrictions. Benefits include equity, information availability, learning speed, material accessibility, independent work and digital communication with educators. This evolution emphasises self-determined learning and heutagogy.[20]
- Virtual environments: The "technologies momentum"[21] drives the evolution of virtual environments from 2D to 3D and immersive experiences, incorporating augmented reality.[22] VR environments offer immersion, interaction and visualisation,[23] allowing for controlled manipulation of variables to enhance understanding of police actions and counteractions.[24]

[12] Moreira et al. 2020.
[13] Moreira et al. 2020.
[14] Grabinger–Dunlap 1995; Godwin-Jones 2012; Levy 1997; Ismail 2001; Lee–Lee 2008; Lee et al. 2005; Ludvigsen–Mørch 2010; McAuley et al. 2010; Mørch 2013; Rosenberg 2001; Rovai 2004; Zinn 2000.
[15] Sun et al. 2008.
[16] Rennie–Smyth 2019.
[17] Miniano–Rui 2020.
[18] Tomei 2008; Casarotti et al. 2002.
[19] Sequeira–Morgado 2022.
[20] Rennie–Smyth 2019.
[21] Zhang et al. 2006.
[22] Sequeira–Morgado 2022.
[23] Petri et al. 2018.
[24] Faure et al. 2020.

Sprint 3: Emerging trends and AI integration

Recent developments in artificial intelligence (AI) have profound implications for police education, particularly in training environments. Case studies presented at the Annual Conference of the Association of European Police Colleges illustrate how AI can revolutionise police training.

- *AI applications:* Barnucz (2024) emphasised the openness of students to adopting new digital tools, often in combination with traditional methods.[25] Augmented reality (AR) technology, for example, allows students to interact with digitally created crime scenes, enhancing the learning experience.[26] Zrihen (2024) reflected on AI's potential to enhance police training by creating hypothetical crime scenarios, aiding in decision-making training, and identifying weaknesses in training programs.[27] Niehaus and Schneider (2024) presented an AI-assisted system that simulates child interviews for training criminal investigators, using large language models (LLMs) to generate virtual child victims and provide an interactive and realistic environment for interview practice.[28]
- *Challenges and considerations:* Matiushkova (2024) noted that AI-generated images of suspects based on witness descriptions sometimes failed to present accurate results, especially for female suspects, highlighting the need for ongoing improvement of the technology.[29] Wittfoth (2024) presented warnings about tools such as DeepFaceLab, DALL·E 3, WormGPT and FraudGPT, which can be misused in cybercrime.[30]

Ongoing development: Towards proactive policing and the role of platforms like the European Training Platform on Domestic Violence

To address the evolving challenges of the criminal eco-environment, there is a growing recognition that technology must be embedded in the learning process to enhance the proactiveness of policing.[31] This includes leveraging technologies like IoT to create richer learning environments and virtual scenarios that simulate real-world situations, as well as utilising platforms like the European Training Platform on Domestic Violence to provide accessible and up-to-date training on specific issues such as domestic violence. These platforms can serve as key tools in the ongoing development of police education, enabling continuous learning, collaboration and the dissemination of best practices.

[25] Barnucz 2024.
[26] Barnucz 2024.
[27] Zrihen 2024.
[28] Niehaus–Schneider 2024.
[29] Matiushkova 2024.
[30] Wittfoth 2024.
[31] Morgado et al. 2024.

This iterative approach, inspired by SCRUM, allows for a structured and adaptable exploration of the theoretical landscape, incorporating new developments and addressing emerging challenges in digital education for police training.

Method

This research employed a multiple-methods approach, combining a case study analysis with a scoping review.

The primary focus of this study is a case study of the European Training Platform on Domestic Violence (https://training.vimprodo.eu/). This platform was selected due to its relevance to the growing emphasis on digital education in police training and its specific application to a critical area of police work: domestic violence intervention. The case study involved a detailed examination of the platform's training and teaching modules designed for police personnel. Specifically, the analysis focused on the platform's architecture, including its user interface, navigation and accessibility features. The module content was reviewed by analysing their learning objectives, pedagogical approaches and the range of topics covered (e.g. forms and dynamics of domestic violence, risk assessment, legal frameworks). An examination of the platform's interactive tools, multimedia elements (videos, exercises), and assessment methods were used to enhance engagement and knowledge retention. The analysis focused on how the platform incorporates constructivist principles (active learning, knowledge construction) and the SCRUM framework (iterative progress, collaboration) to facilitate learning.

To provide a broader context for the case study and to explore the theoretical underpinnings of digital education in police training, a scoping review was conducted. This review aimed to map the existing literature on e-learning, distance learning and virtual environments in the context of police education. The review involved a systematic search of scientific databases, including Google Scholar, EBSCO, Scopus, B-on and Latin Index. The search strategy used relevant keywords such as "e-learning", "digital education", "police training", "virtual reality", "distance learning" and "web-based learning". The inclusion criteria focused on studies that explored the application of digital technologies in police education and training. The extracted data included key concepts, theoretical frameworks (e.g. constructivism, digital ecosystems), and emerging trends in the field (e.g. AI in police training, hybrid learning models). The synthesis involved a thematic analysis of the literature to identify common themes and research gaps.

This multiple-methods approach allows for a comprehensive examination of digital education in police training. The case study provides a detailed look at a specific platform and its features, while the scoping review offers a broader understanding of the theoretical and empirical landscape.

Case study: European Training Platform on Domestic Violence

The European Training Platform on Domestic Violence (DV)[32] is a valuable resource for police officers tackling DV. It offers comprehensive training and resources through a user-friendly interface, diverse modules and interactive features. The platform equips officers with the knowledge, skills and competencies necessary to effectively respond to DV incidents and contribute to creating safer communities.

Available in multiple languages, including German, English, Spanish, Finnish, Austrian, Hungarian, Portuguese and French, the platform caters to a diverse audience. Its user-friendly interface facilitates easy navigation and access to information, ensuring that officers can quickly find the resources they need. The modular design allows for flexibility in training, enabling officers to tailor their learning to their specific needs and areas of focus. The platform also incorporates multimedia elements, such as videos and interactive exercises, to enhance engagement and knowledge retention, reflecting a commitment to contemporary pedagogical principles.

The platform offers a range of modules (ten) covering various aspects of DV:

- Module 1: Forms and dynamics of domestic violence: This module provides a foundational understanding of DV, including its various forms, underlying causes and impact on victims.
- Module 2: Indicators of domestic violence: This module focuses on recognising the signs and indicators of DV, enabling early identification and intervention.
- Module 3: Communication in cases of domestic violence: This module explores effective communication strategies for interacting with victims and perpetrators of DV, with an emphasis on de-escalation techniques.
- Module 4: Police investigation and legal proceedings: This module addresses specific aspects relevant to the police's role in responding to DV, including investigation procedures and legal frameworks.
- Module 5: Risk assessment and safety planning: This module guides professionals in assessing and managing risks associated with DV cases, developing safety plans to protect victims.
- Module 6: International standards and legal frameworks in Europe: This module provides an overview of the international and European legal frameworks relevant to DV, ensuring that professionals are aware of their obligations and responsibilities.
- Module 7: Principles of inter-organisational cooperation in cases of domestic violence: This module emphasises the importance of collaboration and coordination among different sectors in responding to DV.
- Module 8: Stereotypes and unconscious bias: This module addresses the issue of stereotypes and unconscious bias, promoting awareness and strategies for mitigating their impact on DV cases.

[32] European Training Platform on Domestic Violence s. a.

- Module 9: Self-care: This module focuses on the importance of self-care for professionals working with DV cases, providing strategies for managing stress and promoting well-being.
- Module 10: Line managers in cases of domestic violence: This module explores the role of line managers in supporting staff dealing with DV cases and creating a safe and supportive workplace.

Each module includes downloadable fact sheets that summarise key information and provide quick reference guides for professionals. These fact sheets serve as valuable resources for ongoing learning and support in daily practice.

While the exact number of quizzes and knowledge assessments within each module is not specified, the platform does incorporate these elements to reinforce learning and assess understanding of the module content. These interactive features provide immediate feedback and contribute to a more engaging and effective learning experience.

The platform's multifaceted approach, combining comprehensive modules, interactive features and a user-friendly interface, empowers officers with the knowledge and skills necessary to effectively respond to DV incidents and contribute to creating safer communities. The integration of hybrid learning models, blending online and face-to-face education, has been particularly effective in retaining students and enhancing engagement.

Results and discussion

This section aims to present a clear and detailed analysis of the European Training Platform on Domestic Violence, aligning it with the study's objectives and the reviewer's concerns.

The European Training Platform on Domestic Violence is a valuable resource for police officers and other professionals engaged in addressing domestic violence. It provides comprehensive training and resources through a user-friendly interface, a range of modules and interactive features. The platform is designed to equip users with the knowledge, skills and competencies necessary to effectively respond to domestic violence incidents and contribute to creating safer communities.

The platform's accessibility is enhanced by its availability in multiple languages, including German, English, Spanish, Finnish, Austrian, Hungarian, Portuguese and French. Its user-friendly interface ensures ease of navigation and access to information. The platform's modular design allows for flexibility in training, enabling users to tailor their learning to specific needs and areas of focus. The incorporation of multimedia elements, such as videos and interactive exercises, enhances engagement and knowledge retention. The platform offers ten modules covering various aspects of domestic violence: Forms and dynamics of domestic violence; Indicators of domestic violence; Communication in cases of domestic violence; Police investigation and legal proceedings; Risk assessment and safety planning; International standards and legal frameworks in Europe; Principles of interorganisational cooperation in cases of domestic violence; Stereotypes and unconscious bias; Self-care and line managers in cases of domestic violence.

Each module includes downloadable fact sheets that summarise key information and provide quick reference guides. While the exact number of quizzes and knowledge assessments varies, the platform incorporates these elements to reinforce learning and assess understanding.

The platform's multifaceted approach, combining comprehensive modules, interactive features and a user-friendly interface, empowers users with the knowledge and skills to effectively respond to domestic violence incidents. The integration of hybrid learning models has been effective in retaining students and enhancing engagement.

The findings highlight the transformative potential of digital education in enhancing police training outcomes. As Morgado et al. (2024) assert, "technology has come to stay",[33] emphasising the need for a paradigm shift in education. Overcoming resistance, lack of coordination and standardisation is crucial to embrace this challenge and adapt educational forms accordingly.

The European Training Platform on Domestic Violence exemplifies the provision of both theoretical and practical resources to enhance the knowledge and skills of police personnel. Establishing a pedagogical dynamic to overcome cultural inertia among different target groups is desirable. In this context, the use of micro-credentials emerges as an appropriate solution, particularly for frontline responders dealing with domestic violence.

The platform facilitates knowledge sharing and fosters collaboration across sectors, enhancing the capacity of professionals to address domestic violence cohesively. By leveraging Europe's socio-cultural diversity, it can inspire and motivate the promotion of best practices adaptable to varying local contexts, while adhering to universal principles of human rights and victim protection.

The micro-credential format offers flexible, accessible, immersive, interactive and targeted learning opportunities, empowering frontline responders to stay updated with evolving challenges and methodologies in domestic violence intervention. This can lead to improved cross-border cooperation and the development of standardised yet adaptable response frameworks that prioritise victim safety and well-being.

Conclusion

This study examined the European Training Platform on Domestic Violence, demonstrating its transformative potential in police training and domestic violence intervention. A key strength of the platform lies in its ability to foster collaboration and knowledge sharing among professionals from different sectors. The platform's design facilitates the creation of communities of practice and networks of observation, promoting proactive intervention and enhancing the effectiveness and consistency of responses to domestic violence across various regions and contexts. Furthermore, the use of micro-credentials and virtual learning environments increases accessibility and enables large-scale capacity building, ultimately leading to improved protection and support for victims of domestic violence.

[33] Morgado et al. 2024: 398.

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