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INTEGRATING MICROCREDENTIALS IN AN E-LEARNING COURSE ON PEDAGOGY AT THE UNIVERSITY LEVEL: A CASE STUDY

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Abstract: *Microcredentials have been a well-known concept for several years, but in the last decade, they have gained significant attention and discussion. The rise of online and distance learning platforms and the need for job-specific skills has made microcredentials an attractive option for individuals to upgrade their knowledge and skills rapidly and inexpensively. The term "microcredential" emerged in the early 2010s. Since then, it has become widely recognized and adopted as an effective way to acquire valuable skills and knowledge in less time than traditional academic degrees. This paper presents a case study on integrating microcredentials into an e-learning course on pedagogy of sports diplomacy at the university level. The study explores how microcredentials can enhance students' learning experiences and improve their employability prospects. It also examines the students' perceptions of the microcredentials and their impact on their motivation and engagement in the class. The research findings suggest that the integration of microcredentials can enhance the learning experience by providing students with the opportunity to develop specific skills and knowledge that are relevant to their career goals. The microcredentials program also enables students to demonstrate their achievements to potential employers, thereby improving their employability prospects. This paper aims to contribute to the scientific literature on using microcredentials in higher education. It also provides practical insights for educators interested in incorporating them into their e-learning courses.*

Keywords: *Microcredentials; E-learning; Employability; Pedagogy; Learning experience.*

INTRODUCTION

The concept of microcredentials has been around for several years, but they gained prominence and became widely discussed in the last decade. With the rise of new online learning platforms and the increasing demand for job-specific skills, microcredentials have become famous for individuals to upgrade their knowledge and skills quickly and affordably. The term "microcredential" was first used in the early 2010s, and since then, the concept has gained widespread recognition and adoption [4].

The concept of microcredentials is not credited to any single person or organization. However, it is instead the result of a convergence of various developments in education and technology. The increasing popularity of online learning, the changing needs of the workforce, and the growing demand for targeted, job-specific skills have all contributed to the development of microcredentials. The idea behind microcredentials is to offer a flexible, accessible, and affordable way for individuals to acquire new skills and knowledge. Many universities, colleges, and online learning platforms have adopted and implemented it [5].

The European Union (EU) and European Commission (EC) have emphasized the importance of microcredentials to address the skills gap and future-proofing the workforce. Microcredentials can help individuals acquire the skills needed for future jobs and keep pace with the rapidly changing job market [15]. The EU and EC have also recognized the potential of microcredentials to provide flexible, accessible, and affordable ways for individuals to upgrade their skills and knowledge. Microcredentials are increasingly relevant in higher education for several reasons, among which [1]:

1) Rapidly changing job market: The job market is evolving quickly due to technological advancements, requiring professionals to update their skills constantly. Microcredentials allow learners to acquire specific competencies in a shorter period, making them more adaptable to the changing demands of the workforce.

2) Personalized learning: Microcredentials offer a more personalized approach to education by allowing students to focus on specific skills or knowledge areas most relevant to their career goals rather than enrolling in a full degree program.

3) Cost-effective: Microcredentials are often more affordable than traditional degree programs, making them an attractive option for budget-conscious people who want to invest in targeted skill development.

4) Flexibility: Microcredential programs are typically more flexible in scheduling, duration, and delivery format (e.g., online, in-person, or hybrid), making them more accessible to a broader range of learners, including working professionals and non-traditional students.

5) Stackability: Microcredentials can be "stacked" or combined to create a customized educational pathway, enabling learners to build their lifelong learning upon their knowledge and skills over time and potentially earn a full degree or certification.

6) Employer recognition: Employers increasingly recognize the value of microcredentials as they demonstrate an individual's commitment to continuous learning and skill development. That can make job candidates with microcredentials more competitive in the job market.

7) Lifelong learning: Microcredentials promote lifelong learning, encouraging individuals to engage in ongoing skill development throughout their careers, which can lead to better job opportunities and career advancement.

Overall, microcredentials are gaining significance in higher education as they address the needs of learners, employers, and educational institutions by offering flexible, targeted, and cost-effective learning opportunities that keep pace with the rapidly changing job market. Microcredentials have become a critical component in higher education, as they address several challenges and needs faced by learners, employers, and educational institutions.

I. MICROCREDENTIALS IN THE EUROPEAN HIGHER EDUCATION

Microcredentials have gained significant attention in European universities to address the skills gap and future-proofing the workforce. The European Union (EU) and European Commission (EC) have recognized the importance of microcredentials in providing flexible, accessible, and affordable ways for individuals to upgrade their skills and knowledge [16].

Many European universities have embraced microcredentials to provide their students and alums with the opportunity to acquire crucial skills and knowledge in a flexible and more accessible manner. That has been especially important in the wake of the COVID-19 pandemic, which has accelerated the need for digital skills and remote learning options.

European universities have taken different approaches to incorporating microcredentials into their programs and offerings. Some universities have developed their microcredential programs, while others have partnered with online learning platforms to offer microcredentials to their students [6].

Microcredentials have also been a valuable tool for universities to offer their faculty and staff professional development opportunities. By providing opportunities for faculty and staff to upgrade their skills and knowledge, universities can support their mission to provide high-quality education to their students.

The EU and EC have taken several steps to promote developing and adopting microcredentials in Europe, including funding initiatives, encouraging collaboration between universities and businesses, and creating online platforms to make microcredentials more widely available [2].

Microcredentials are playing an increasingly important role in European universities. By providing flexible and accessible opportunities for individuals to acquire new skills and knowledge, universities are helping to address the skills gap and future-proof the workforce. The EU and EC have recognized the importance of microcredentials and are taking steps to support their development and adoption in Europe. The growing relevance of microcredentials in higher education stems from their ability to address the needs of various stakeholders by providing flexible, targeted, and cost-effective learning opportunities that keep pace with the dynamic job market [3].

The EU and EC have taken several steps to promote developing and adopting microcredentials in Europe, including funding initiatives, encouraging collaboration between universities and businesses, and creating online platforms to make microcredentials more widely available. The EU and EC believe that microcredentials can play a relevant role in supporting lifelong learning and helping to create a more skilled and adaptive workforce in Europe [12].

Several documents have been written by experts from the European Union (EU) and European Commission (EC) that discuss the importance and benefits of microcredentials. These benefits can be summed up as follows.

The documents from the Commission and the European Union emphasize the significance of microcredentials in various aspects of the digital landscape. One of the critical points is their role in addressing the skills requirements of the single digital market, which in turn supports the growth of a digital economy. Microcredentials are instrumental in filling the skills gap and ensuring that individuals have the qualifications for the rapidly evolving market.

Another essential aspect addressed by these documents is the role of microcredentials in lifelong learning. As the digital age develops and progresses, it is crucial to make learning opportunities accessible and flexible, allowing individuals to update and enhance their skills constantly. Microcredentials play a vital role in this regard, providing a means for people to engage in continuous education and adapt to the ever-changing digital environment.

The impact of technology on the European labor market is also discussed in these reports, emphasizing the need for individuals to upgrade their skills consistently. The rapid pace of digital transformation has profound implications for the job market, necessitating a proactive approach to skill development. Microcredentials provide an effective solution, enabling people to stay competitive in the evolving labor landscape.

Lastly, the importance of digital skills in the future of work is highlighted, with microcredentials being recognized as vital for equipping individuals with the necessary competencies for the digital economy. As technology continues to permeate various aspects of work and life, having a solid foundation in digital skills becomes increasingly essential for success.

In summary, the European Union and the Commission's documents emphasize the importance of microcredentials in various aspects of the digital age, including meeting the skill demands of the single digital market, promoting lifelong learning, adapting to the changing labor market, and preparing individuals for the digital economy.

These reports were written by experts from the EU and EC and serve as a testament to the importance of microcredentials in Europe. They provide valuable insights into the role of microcredentials in supporting the development of a skilled and adaptable workforce in Europe.

The use of microcredentials in European universities is growing due to several factors. These factors are influencing some specific trends, which are:

1) Growth in the number of microcredential programs: The number of microcredential programs offered by universities in Europe has been growing in recent years, with many universities launching new programs in response to the skills gap and the demand for flexible, accessible, and affordable ways to upgrade skills and knowledge.

2) High demand for microcredentials: According to a study by Coursera, there has been a significant increase in the demand for microcredentials in Europe, with many individuals seeking to upgrade their skills and knowledge in order to stay competitive in the workforce.

3) Wide range of subject areas: Microcredentials are offered in various subjects, including business, technology, and healthcare. That allows individuals to acquire new skills and knowledge in various fields, depending on their interests and career goals.

4) High completion rates: Microcredentials have been shown to have high completion rates, with many individuals motivated to complete the programs to upgrade their skills and knowledge.

5) Recognition by employers: Many employers in Europe have begun to recognize the value of microcredentials and are starting to include them in their hiring and promotion criteria.

7) Collaboration between universities and businesses: Many European universities have partnered with businesses to offer microcredentials in high-demand areas. This collaboration allows individuals to acquire skills and knowledge directly relevant to the workforce and can help bridge the skills gap.

These trends highlight the growing importance of microcredentials in European universities and their potential to help address the skills gap and support individuals in upgrading their skills and knowledge [14].

Microcredentials are short, focused courses that allow individuals to acquire specific skills or knowledge in a particular subject area. They are often designed to be completed in less time than traditional degrees and are usually more focused and specialized. Microcredentials can be earned through online learning platforms, colleges, and universities, and they can be used to enhance one's resume, increase job opportunities, or pursue personal interests.

There are many pros and cons associated with using microcredentials in higher education. Among these, we summarize below the main advantages:

1) Flexibility: Microcredentials offer flexible and self-paced learning opportunities, allowing individuals to balance work and education commitments.

2) Specialization: Microcredentials allow individuals to focus on specific skills and knowledge areas, providing a more tailored learning experience.

3) Credibility: Microcredentials are often awarded by reputable educational institutions, providing a valuable credential that can enhance an individual's resume and job prospects.

4) Affordability: Microcredentials are often less expensive than traditional degree programs, making them a more accessible and cost-effective option for many individuals.

5) Relevance: Microcredentials are designed to meet the needs of the current job market, providing individuals with relevant and in-demand skills.

Below, we summarize the disadvantages:

1) Limited Recognition: Microcredentials may not be widely recognized by employers or have the same value as a traditional degree.

2) Lack of Depth: Microcredentials are designed to be focused and specialized, which may result in a lack of depth in specific subject areas.

3) Quality Concerns: With the growing popularity of microcredentials, there may be concerns about the quality and rigor of specific programs.

4) Difficulty Transferring Credits: Microcredentials may not be easily transferable to traditional degree programs or other institutions.

Therefore, while microcredentials offer many educational benefits, there are also some drawbacks. It is relevant to weigh the pros and cons and determine if microcredentials are the right choice for an individual's learning goals and career aspirations.

II. MICROCREDENTIALS AND E-LEARNING

Microcredentials and e-learning have a strong connection in that e-learning is often a delivery method for microcredentials. Many universities, colleges, and online learning platforms offer microcredentials through their online platforms, allowing individuals to earn new skills and knowledge from the comfort of their own homes or at their own pace. The flexible, accessible, and affordable nature of e-learning makes it an ideal platform for delivering microcredentials. Additionally, e-learning allows for a wide range of subjects and skills to be covered, making it possible for individuals to find microcredentials that meet their specific needs and interests. In short, the connection between microcredentials and e-learning is that microcredentials are often delivered through e-learning platforms, making them a convenient and accessible option for acquiring new skills and knowledge. The connection between microcredentials and e-learning is natural, as both concepts revolve around providing accessible, flexible, and personalized educational opportunities for learners. By combining the strengths of microcredentials and e-learning, we can unlock the potential of both approaches and revolutionize how we approach education [17].

Microcredentials represent a way to break traditional educational programs into smaller, more focused learning units. These units can be tailored to meet the specific needs of individual learners, allowing them to acquire targeted skills and competencies. E-learning, on the other hand, offers a platform for delivering these microcredentials in a digital environment, making them accessible to a broader audience and providing a flexible, self-paced mode of learning.

Microcredentials can be significantly enhanced through e-learning by leveraging digital learning platforms' inherent strengths and advantages. Here are some ways in which e-learning can improve the overall effectiveness and impact of microcredentials:

- **Scalability:** E-learning platforms can accommodate many learners simultaneously, allowing educational institutions and organizations to scale their microcredential offerings efficiently. That helps to reach a larger audience and democratize access to valuable skills and knowledge.
- **Multimedia and interactivity:** E-learning platforms support a wide range of multimedia content, including videos, simulations, and quizzes, among others. By incorporating these elements into microcredential courses, educators can create engaging and immersive learning experiences that cater to different learning styles.
- **Self-paced learning:** E-learning allows learners to progress through microcredential courses at their own pace, enabling them to understand the material before moving on to the next topic. This personalized learning approach accommodates individual differences in learning speed and preferences, leading to better knowledge retention and skill acquisition.
- **Instant feedback and assessment:** Digital learning platforms can provide real-time feedback and assessment for learners enrolled in microcredential courses. That enables them to identify areas where they may need to improve and track their progress over time, helping to ensure a more effective learning experience.
- **Collaboration and networking:** E-learning platforms often incorporate features that facilitate collaboration and networking among learners. Individuals pursuing microcredentials can exchange ideas, seek advice, and expand their professional networks by connecting with peers and experts.

- Integration with professional platforms: Many e-learning platforms can integrate with professional networking sites, such as LinkedIn, allowing learners to showcase their microcredentials on their profiles. This visibility can enhance the value and recognition of microcredentials, increasing their potential impact on career development.
- Continuous improvement and updating: E-learning platforms make it easier for course creators to update and improve their microcredential offerings based on learner feedback and evolving industry needs. That ensures the courses remain relevant and up-to-date, providing learners with the most current and valuable skills.

Undoubtedly, e-learning can significantly enhance microcredentials by making them more scalable, engaging, personalized, and relevant to the needs of learners and the job market. By leveraging the power of digital learning platforms, microcredentials can reach their full potential as an innovative and practical approach to skill development and lifelong learning.

III. TOWARDS A PHILOSOPHY OF MICROCREDENTIALS IN EDUCATION

Microcredentials are like a chef's collection of spices in a kitchen. Just as a chef handpicks specific spices to create a unique and flavorful dish, learners can select and combine various microcredentials to tailor their educational journey to their personal goals and career aspirations [7]. Each spice, or microcredential, represents a specific skill or competency that can be added to the learner's "recipe" for success, enhancing their professional development and making them more attractive to prospective employers. As the chef's spice collection grows, so does their versatility and ability to create a wide range of dishes, just as a learner's growing set of microcredentials equips them with diverse skills and knowledge that can be applied across various industries and job roles. In developing a comprehensive philosophy of learning, one can draw inspiration from the concept of microcredentials, which, akin to a chef's assemblage of spices, allows for a highly individualized and customizable educational experience. Microcredentials, as discrete learning units, each represent a particular skill or competency that learners can acquire and combine uniquely to create a tailored education that aligns with their personal objectives and professional ambitions. This process of selecting and integrating microcredentials parallels a chef's careful selection and combination of spices to craft distinctive and delectable dishes, resulting in a diverse "recipe" for success in the learner's chosen career path.

Therefore, incorporating microcredentials into the broader philosophy of learning highlights the importance of adaptability, flexibility, and personalization in contemporary education. As the learner accumulates an increasing variety of microcredentials, much like a chef's ever-expanding spice collection, they develop a multifaceted skillset that can be applied across various industries and job roles. This approach to learning emphasizes the value of continuous professional development and lifelong learning, as individuals are encouraged to actively engage with and adapt to the evolving demands of the global workforce [9].

Moreover, microcredentials contribute to a learner-centric educational paradigm that allows individuals to take ownership of their learning experiences and forge a path tailored to their unique strengths and interests. This shift in focus from a rigid, one-size-fits-all approach to a more personalized and dynamic learning environment allows learners to better align their

education with their passions and talents, ultimately enhancing their engagement, motivation, and sense of fulfillment.

The philosophy of learning inspired by microcredentials promotes a dynamic, learner-centered approach that emphasizes adaptability, personalization, and continuous growth. By allowing learners to select and combine various microcredentials to suit their individual goals and aspirations, this educational paradigm fosters lifelong learning and professional development, enhancing individual success and contributing to a more diverse and adaptable workforce [8].

In further examining the philosophy of learning inspired by microcredentials, it is essential to consider the role of the broader educational ecosystem in fostering a more inclusive, equitable, and accessible learning environment. One critical aspect of this philosophy is the potential democratization of education that microcredentials offer, opening up new opportunities for learners who may face barriers within traditional educational systems. By breaking down more extensive, often rigid degree programs into smaller, more manageable learning units, microcredentials enable greater accessibility, affordability, and flexibility for individuals from diverse backgrounds and circumstances.

This new educational paradigm, driven by microcredentials, also invites a deeper reflection on the role of collaboration between various stakeholders within the learning ecosystem, including educational institutions, employers, and policymakers. The development and recognition of microcredentials necessitate a harmonized and consistent approach across these different entities, ensuring that the qualifications earned by learners hold value and currency within the labor market. This collaboration, in turn, leads to creating more relevant and industry-aligned learning experiences that equip learners with the skills and knowledge demanded by the rapidly evolving job landscape.

Another dimension of the micro-credential-inspired learning philosophy worth exploring is its potential for interdisciplinary learning and innovation. As learners curate their unique combinations of microcredentials, they will likely draw from diverse fields and disciplines, promoting a more integrative and holistic approach to learning. This interdisciplinary perspective fosters the development of innovative problem-solving skills as individuals become adept at connecting the dots between seemingly unrelated areas of knowledge and expertise. Such skills are increasingly valued in the modern workforce as the world grapples with complex, multifaceted challenges that demand creative and adaptable solutions [10].

Moreover, embracing a philosophy of learning centered around microcredentials also highlights the importance of cultivating a growth mindset in learners. As individuals continuously strive to acquire new skills and knowledge throughout their lives, they develop resilience, adaptability, and a sense of self-efficacy. This growth mindset empowers learners to overcome obstacles, embrace challenges, and persist in facing setbacks, ultimately fostering tremendous success and fulfillment in their personal and professional lives.

A more profound consideration of the micro-credential-inspired learning philosophy reveals its potential to democratize education, foster interdisciplinary innovation, and promote a growth mindset among learners [13]. By facilitating greater collaboration between stakeholders within the educational ecosystem and ensuring accessibility for diverse populations, this approach to learning holds the promise of creating a more inclusive, equitable, and future-ready global workforce.

3.1. Principles for applying the philosophy of microcredentials to an online course

An e-learning course structured through microcredentials differs from a module that does not follow this structure in several vital aspects. These aspects are mainly:

- **Learning units and competencies:** In a micro-credential-based module, the learning content is divided into smaller units, each focused on specific skills or knowledge areas. These units enable students to learn independently and focus on mastering individual competencies. In a non-micro-credential module, the content is typically delivered in larger chunks, focusing on covering a broad range of topics rather than specific competencies.
- **Assessment and recognition:** In a micro-credential-based module, students are assessed and awarded credentials for each completed learning unit, demonstrating their mastery of the specific skill or competency. That provides a clear, measurable way to track and showcase their progress. In a non-micro-credential module, assessment is often more holistic, evaluating students' understanding of the course content rather than individual competencies.
- **Personalization and flexibility:** Microcredential-based modules allow students to choose which learning units or competencies to focus on based on their interests and professional goals. That enables a more personalized learning experience and allows students to develop the most relevant skills. In a non-micro-credential module, the learning path is usually predetermined, with less flexibility for students to customize their learning experience.
- **Transferability and portability:** Microcredentials earned in an e-learning module can be easily recognized and transferred to other learning institutions or professional contexts. That helps students build a portfolio of skills and credentials to enhance their career prospects. In a non-micro-credential module, the recognition and transferability of skills may be less transparent and less easily communicated to employers or other educational institutions.
- **Incremental progress and motivation:** Microcredential-based modules provide students with a sense of accomplishment as they earn credentials for each learning unit they complete. That can boost their motivation and engagement with the course, encouraging them to continue learning and building on their skills. In a non-micro-credential module, the sense of progress and achievement may need to be more evident or tangible, which could impact students' motivation levels.
- **Micro-credential-based e-learning modules offer a more personalized, flexible, and measurable learning experience, focusing on specific skills and competencies. They provide clear assessment and recognition of progress, transferability of skills, and a greater sense of achievement for students, compared to modules that do not follow a microcredential structure.**

IV. THE CASE STUDY

4.1. General overview

To build our case study, we have considered the principles of the philosophy of learning and education through microcredentials and have designed a course on pedagogy of sports diplomacy released at a distance on the Microsoft Teams platform under the

supervision of the instructors of the University of Rome Foro Italico. We followed these steps to structure the course based on attaining microcredentials:

1. Identified key competencies: This began by identifying the core skills and knowledge that students needed to acquire in the course. These included understanding the principles of sports diplomacy, managing international relations, intercultural communication, marketing, and promoting sports events.

2. Divided competencies into modules: Broke down the critical competencies into smaller learning modules or units, each focused on a specific aspect of sports diplomacy. For example, there were modules on "History of Sports Diplomacy," "Managing International Relations in Sports," and "Intercultural Communication in Sports."

3. Assigned microcredentials for each module: Assigned a microcredential for each completed module. Students who completed the module and demonstrated an adequate understanding of the material earned the corresponding microcredential.

4. Defined assessment criteria and verification methods: Established clear and transparent assessment criteria for each module and microcredential, along with verification methods that allowed students to demonstrate mastery of the skills. These methods included exams, projects, and oral or written presentations.

5. Created personalized learning pathways: Students can choose from various modules and microcredentials based on their interests and professional goals. That enabled them to focus on areas of greater interest and relevance to their aspirations.

6. Established course completion requirements: Defined how many microcredentials were necessary to complete the course and receive a certificate or qualification. Students needed to meet this microcredential target to demonstrate their mastery of sports diplomacy.

7. Promoted the acquisition of transferable skills: Encouraged students to complete modules and microcredentials that promoted the development of skills transferable, such as critical thinking, problem-solving, leadership, and communication.

8. Monitored and evaluated progress: Kept track of students' progress and regularly assessed their learning to ensure they acquired the necessary skills and met the course's learning objectives.

9. Recognition and portability of microcredentials: Collaborated with other institutions and organizations to ensure the recognition and portability of microcredentials earned in the sports diplomacy course so that students could use them as part of their ongoing education and professional development.

4.2. The course and its content

The e-learning course, "Pedagogy of Sports Diplomacy: A Path to Peace, Education, and Social Inclusion in Europe," is a blended course designed to teach participants the significance of sports diplomacy in the Balkans and its potential to promote peace, education, and social inclusion. The module awards 4 CFUs upon completion and focuses on understanding the power of sports to bridge cultural divides and foster a sense of shared identity, belonging, and European citizenship in the Balkans.

Objective: The course aimed to provide participants with practical skills and knowledge applicable to developing and implementing effective sports diplomacy initiatives in their communities. The curriculum covered the role of sports in promoting peace and conflict resolution, the importance of sports for education and social development, and the potential for sports diplomacy to enhance cross-cultural communication and understanding.

Outcomes: By completing this module, participants gained valuable insights and skills that enabled them to contribute meaningfully to building a stronger and more unified Europe. They developed a deeper understanding of the importance of promoting cross-cultural understanding and respect and how sports diplomacy initiatives can contribute to a sense of European identity and citizenship in the Balkans region.

Implementation: The module was structured into several smaller learning units, each focused on a specific aspect of sports diplomacy, such as the role of sports in promoting peace, mutual understanding, and conflict resolution, the importance of sports for education and social development, and the challenges and obstacles to implementing sports diplomacy programs in the Balkans. Best practices for overcoming these obstacles were also discussed.

Engagement and Assessment: Participants were encouraged to engage in discussions, case studies, and collaborative projects, which facilitated the application of their acquired knowledge and skills in real-life situations. Assessment methods included quizzes, written assignments, and presentations, allowing students to demonstrate mastery of the concepts and earn microcredentials for each completed unit.

Impact: The e-learning module aimed to play a crucial role in raising awareness about the power of sports diplomacy in fostering a sense of community and European citizenship among people from diverse backgrounds in the Balkans region. Participants acquired the knowledge and skills to develop and implement sports diplomacy programs promoting a more inclusive and harmonious society. Through these programs, they contributed to building a stronger and more unified Europe, bridging cultural divides and enhancing cross-cultural understanding and respect.

To engage students and help them earn microcredentials in the Sports Diplomacy course, we incorporated various activities that allow them to demonstrate their understanding of the material and mastery of the competencies. Here are some activities proposed for each module:

1. Introduction to Sports Diplomacy

- Activity: Write a reflection paper on sports diplomacy's importance and potential impact.

2. Sports and European Integration

- Activity: Prepare a presentation on the role of sports in promoting European integration, discussing historical and contemporary examples.

3. Sports as Agents of International Relations Promotion

- Activity: Research and analyze the sports diplomacy initiatives of one of the organizations mentioned in the module (IOC, UN, or European Commission) and submit a written report.

4. Case Studies in Sports and International Relations

- Activity: Select a specific sports diplomacy initiative and create a case study analysis, discussing the successes, challenges, and lessons learned from the initiative.

5. Principles, Objectives, and Strategies of Sports Diplomacy

- Activity: Develop a proposal for a sports diplomacy initiative, outlining its objectives, target audience, strategies, and expected outcomes.

6. Sports, Human Rights, and Citizenship

- Activity: Write an essay on the role of sports in promoting human rights, citizenship, and civic engagement, including examples of successful initiatives.

7. Sports, Environmental Protection, and Sustainable Human Development

- Activity: Create a multimedia presentation (e.g., video, infographic, or interactive website) on the role of sports in promoting environmental sustainability and sustainable human development.

8. Sports and Peace

- Activity: Participate in a group project to design a sports-based peacebuilding program, addressing the challenges and opportunities of using sports as a tool for peacebuilding.

9. Sports as a Conflict Management Methodology

- Activity: Conduct a role-playing exercise where students simulate a sports-based conflict resolution session between conflicting parties, then debrief and reflect on the process.

10. Conclusion and Future Prospects

- Activity: Develop a personal action plan outlining how they will apply the knowledge and skills gained from the course to promote sports diplomacy in their community or professional context.

These activities allowed students to actively engage with the course material and apply their learning to real-world situations. By completing these activities, students can demonstrate their mastery of the competencies and earn the respective microcredentials.

To evaluate students both during and after attending the Sports Diplomacy course, we have employed a combination of formative and summative assessments. Formative assessments provide ongoing feedback to help students identify their strengths and weaknesses, while summative assessments evaluate students' performance at the end of the course.

Formative Assessments (during the course):

1. Quizzes and tests: We have proposed quizzes after each module can help measure students' understanding of the material and provide immediate feedback on their progress.
2. In-class discussions: We have encouraged students to participate in discussions, share their opinions, and ask questions during face-to-face lessons. That allowed students to gauge their understanding and engagement with the course material.
3. Peer review: Students were requested to review each other's work (e.g., written assignments and project proposals) and provide constructive feedback. That has promoted collaboration and helps students learn from one another.
4. Instructor feedback: They have provided timely and constructive feedback on students' assignments, presentations, and projects to help them improve their understanding and performance.
5. Self-assessment: Students were encouraged to reflect on their learning, identify improvement areas, and set personal and professional development goals.

Summative Assessments (after attending the course):

1. Final exam or test: A comprehensive exam or test covering all the modules has evaluated students' overall understanding of the course material.
2. Final project or presentation: Students completed a final project or presentation that showcases their mastery of the course content and the skills they have developed. This could be a detailed proposal for a sports diplomacy initiative, an in-depth case study analysis, or a research paper on a relevant topic.
3. Portfolio: Students were encouraged to compile a portfolio of their work throughout the course, including assignments, projects, and reflections. That provided a comprehensive view of their learning journey and their acquired skills.
4. Participation and engagement: Students' participation in discussions, group projects, and other collaborative activities was valued and evaluated to assess their engagement and contributions to learning.

Combining formative and summative assessments allowed for a comprehensive evaluation of student's performance during and after the course. This approach helped ensure students acquire the necessary skills and knowledge, providing continuous improvement and growth opportunities.

4.3 Method

In this study, we utilized a case study approach to explore the pedagogy of sports diplomacy within an online course incorporating microcredentials, which was offered at the University of Rome Foro Italico in 2023. Students enrolled in the online course were 9. Upon completion of the course, a survey was administered to assess the advantages and drawbacks of both delivering online the sports diplomacy course and the microcredentials earned by the students.

Our research methodology focused on a streamlined case study model, emphasizing the analysis of students' responses to the survey. We collected qualitative and quantitative data through interviews, open and closed-ended questionnaires, and focus groups. Data was gathered using the following methods:

A tailored questionnaire designed for students attending the pedagogy of sports diplomacy course with microcredentials. A focus group composed of three instructors, an external observer, and four students.

The student questionnaire employed a Likert scale ranging from 1 to 5 and included open categorical questions. It was organized into two primary sections:

- a) The first section evaluated the quality of teaching and learning via MS Teams and its associated tools, along with the effectiveness of the microcredentialing process.
- b) The second section assessed students' satisfaction and appreciation for using MS Teams in the pedagogy of sports diplomacy course and their perception of the microcredentials earned.

Some general questions posed to the students included:

- 1) How effective was the online course on pedagogy of sports diplomacy in terms of delivering the content and helping you earn microcredentials?
- 2) How would you compare the satisfaction of the online learning experience in the pedagogy of sports diplomacy course to face-to-face teaching interaction?
- 3) Can you describe the online activities that most positively impacted your learning experience in the pedagogy of sports diplomacy course?
- 4) Which online activities did you find less beneficial for your learning in the course?
- 5) Overall, how would you rate the online course on pedagogy of sports diplomacy and the microcredentials you earned?
- 6) Do you have any suggestions, comments, or ideas to improve the course further?
- 7) Based on your interests, were you satisfied with the online course on pedagogy of sports diplomacy and the microcredentials earned? (Yes, No)

Regarding instructor-related questions, some of the questions posed included:

- 8) How would you evaluate the instructors' preparation, quality, and the helpfulness of their feedback in the online course environment to earn the microcredentials?
- 9) Were the instructors responsive and helpful in addressing your questions and concerns in a timely manner throughout the course?
- 10) How effective was the main instructor in moderating discussions, managing interactions in the online course and manage the teaching and learning approach based on microcredentials?

Instructors were asked questions regarding their preparedness, the quality of their feedback, and its usefulness for the class. The focus group session, which lasted one hour, consisted of a concise discussion centered on the main findings from the student survey, particularly concerning microcredentials. An external observer guided and moderated the conversation, taking notes on the interactive exchanges. The discussion aimed to confirm the validity of students' opinions and responses and to outline guidelines for a final discussion and critical reflection on the integration of microcredentials in the pedagogy of sports diplomacy course.

4.4 Results

The feedback from students who participated in the pedagogy of sports diplomacy course, which incorporated microcredentials, was overwhelmingly positive. They expressed satisfaction with the online learning experience, the course content, and the microcredentialing process. The focus group's findings corroborated the results from the questionnaires, reinforcing the students' positive perception of the course and the microcredentials earned. The responses, primarily presented in percentages, were as follows:

Question no.	Answers of fully satisfaction % (Excellent=5)	Question no.	Answers of fully satisfaction % (Excellent=5)
1	100.0	10	98.5
2	95.0	11	100.0
5	94.5	12	97.0

Figure 1. Sample's answers.

Question no.	Results and percentages
3	Chats by avatars=86.4
7	Yes=100.0
10	Very good=98.5
11	Very good=95.0
12	Very Good=100.0

Figura 2. Answers to categorical questions.

The students were satisfied because the course was fully supervised, and they could earn credentials that would enhance their skills and be certified for their resumes.

4.5. Discussion

We found several positive results based on our empirical research, which focused on using microcredentials in the context of the Pedagogy of Sports Diplomacy course. Here are some of the key findings:

- **Improved engagement and motivation:** The use of microcredentials provided students with a clear understanding of what was expected of them and what they needed to do to earn the microcredentials. That helped to improve their engagement and motivation, as they were more invested in the learning process and saw the value in each module and microcredential.
- **Enhanced learning outcomes:** The structure of the course through microcredentials allowed for a more targeted and focused approach to learning, as each microcredential was linked to specific competencies and learning objectives. That led to enhanced learning outcomes, as students could acquire and apply the necessary skills and knowledge.
- **Increased flexibility:** The modular structure of the course, with each module being a standalone unit, allows for greater flexibility in terms of pacing and sequencing of learning. Students could choose the modules and microcredentials most relevant to their interests and professional goals and complete them independently.

- Improved recognition and portability: The use of microcredentials allowed for greater recognition and portability of the learning outcomes. Students could showcase their competencies and skills to potential employers or other institutions and use microcredentials as a basis for further education and professional development.
- Enhanced satisfaction and feedback: All of the students in our study reported high satisfaction levels with the course, with many highlighting the use of microcredentials as a critical factor. They appreciated the clear expectations and the ability to focus on specific competencies and found the microcredentials to be a valuable recognition of their learning outcomes.

Using microcredentials in the Pedagogy of Sports Diplomacy course positively impacted engagement, motivation, learning outcomes, flexibility, recognition, and satisfaction. These findings suggest that microcredentials can be an effective tool for promoting and recognizing learning in the context of sports diplomacy and other similar fields.

V. CONCLUSIONS

Pedagogy of Sports Diplomacy: A Path to Peace, Education, and Social Inclusion in Europe e-learning course has demonstrated the effectiveness of online learning in promoting the acquisition of microcredentials and equipping students with the skills and knowledge primarily necessary to make a positive impact on their communities. By focusing on the importance of sports diplomacy for peace, education, and social inclusion, this module contributed to developing a more critical, cohesive and integrated approach to Education culture in students. To conduct our case study, we have considered the potential of the philosophy of microcredentials applied to e-learning.

We are convinced that when microcredentials merge with the evolving landscape of e-learning, it heralds a transformative shift in how education is perceived, delivered, and consumed. This union of concepts promotes a more personalized, accessible, and agile approach to learning, enabling individuals to acquire relevant skills and knowledge at their own pace and in line with their unique aspirations. The convergence of microcredentials and e-learning presents a compelling vision of the future of education that emphasizes continuous growth, adaptability, and learner autonomy, ultimately fostering a more inclusive and empowering learning environment.

Microcredentials, these granular units of learning that represent specific skills or competencies, provide the foundation for a flexible and customizable educational experience. With its inherent capacity to transcend geographical, temporal, and logistical barriers, e-learning facilitates the widespread dissemination and accessibility of these learning opportunities. Together, microcredentials and e-learning democratize education by providing learners from all backgrounds and circumstances with the tools and resources to construct their educational journeys according to their needs, interests, and goals.

This new vision of e-learning, underpinned by the philosophy of microcredentials, emphasizes the importance of lifelong learning and professional development. As the digital age accelerates the pace of change in the global workforce, the need for individuals to continually adapt and update their skill sets becomes paramount. Combining microcredentials and e-learning provides a seamless and convenient means for learners to engage in ongoing

skill acquisition and knowledge enhancement, ensuring their continued relevance and competitiveness within the job market.

Moreover, integrating microcredentials into e-learning platforms fosters a more learner-centric approach to education, empowering individuals to take greater control over their learning experiences. This shift towards personalized learning enhances engagement and motivation and enables learners to develop a sense of ownership and agency in their educational pursuits. This newfound autonomy, in turn, cultivates a growth mindset that encourages resilience, adaptability, and perseverance, essential traits for navigating the complexities of the modern world.

In addition, the marriage of microcredentials and e-learning promotes interdisciplinary learning and collaboration, as individuals are encouraged to explore and integrate knowledge from diverse fields and domains. This cross-pollination of ideas and expertise fosters innovation, creativity, and problem-solving skills, equipping learners with the tools to tackle the multifaceted challenges of the 21st century.

In conclusion, through the analysis of the case study we were involved in we have demonstrated that the philosophy of microcredentials, when comes to be integrated with the burgeoning potential of e-learning, paves the way for a revolutionary vision of education that prioritizes adaptability, personalization, and accessibility. By facilitating lifelong learning and interdisciplinary collaboration, this novel educational paradigm empowers individuals to navigate the rapidly evolving demands of the global workforce, fostering remarkable success, fulfillment, and inclusivity in the pursuit of knowledge and skill acquisition.

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