

Bringing the MOOC into the classroom: an innovative pedagogical practice at the Polytechnic Institute of Santarém

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Innovative pedagogical practice

“refers to a novel or creative approach to teaching and learning that goes beyond traditional methods, aiming to enhance student engagement, critical thinking, problem-solving skills, and overall educational outcomes. It involves the use of innovative strategies, techniques, and tools that are supported by research and designed to adapt to the needs and interests of diverse learners”.

OpenAI. (2023). *ChatGPT-4* (Mar 23 version) [Large language model]. <https://chat.openai.com/chat>

MOOCs key benefits (gentle reminder)

- Access to High-Quality Content;
- Flexibility and Convenience;
- Diverse Learning Opportunities;
- Interactive Learning;
- Cost-Effective.

MOOCs as an innovative pedagogical practice

MOOCs often **incorporate innovative approaches** to how education is delivered and how learners engage with the content, they offer (or might offer) and allow:

- Online and multimedia-based learning;
- Massive scale;
- Flexibility and personalization;
- Adaptive learning;
- Assessment and feedback;
- Lifelong learning and professional development.

The **effectiveness** of MOOCs as pedagogical practices may depend on various factors, including **course design, learner engagement, and instructional quality**.

Why MOOCs in the classroom

- a resource that was used during the pandemic, but which continued to exist in the post-pandemic period;
- a way to increase the knowledge and competence of students (and teachers);
- depending on the level, it can be used as a starting point or as a way to go deeper into a topic;
- allow students to learn at their own pace (flexible in time, space and rhythm);
- it makes the teacher's work less heavy, as they don't have to produce all the content to cover all the topics of a curricular unit.

How to use MOOCs in the classroom

- as a supplemental learning resource
 - to complement classroom instruction
 - additional learning materials, to explore in more depth
- as a flipped classroom model
 - learn the content outside of class
 - class time is dedicated to active learning activities such as discussions, group work, and hands-on projects
- as a blended learning model
 - provide the online component, allowing students to learn at their own pace
 - classroom time can be used for discussions, activities, and individualized support
- as customized learning paths
 - can be selected based on students' interests, needs and abilities

How to select/integrate the MOOCs in the classroom

- carefully review the content, evaluate and assess the quality and effectiveness;
- ensure they are align with learning objectives, instructional strategies, and curriculum requirements;
- monitor student's progress;
- provide support as needed;
- reserve time to discuss in class about the topics.

MOOCs in the classroom _ the case of an undergraduate course in the field of multimedia production in education

Curricular unit (CU):

[Cybersecurity in socio-educational contexts](#) (2nd year, 4th semester)

MOOCs from [NAU](#) used in the CU:

Cidadão Ciberseguro; Cidadão Ciberinformado; Consumidor Ciberseguro;

Cidadão Cibersocial

pedagogical methods and learning strategies

- mix between traditional methods (applied to present times) & active learning strategies
- classroom [+ online distance learning sessions]
- flipped classroom [+ ubiquitous learning]
- collaborative learning [+ peer to peer learning]
- project based learning

setting a 14 weeks scenario

	w1	w2	w3	w4	w5	w6	w7
Online / at distance	Explore the NAU and get to know the courses on offer.	MOOC completion (get the certificate).	Search for more information about the topic.	Prepare the materials/contents.			Students prepare in advance a set of questions.
In classroom	Introduction to the curricular unit modules, work methodology and assessment; introduction to the concept of MOOC.	Organize the class in small groups; Mocc assignment (each group will work a different topic); explore the learning outcomes of the MOOCs.	Each of the groups discusses and reflects on what they have learned in the MOOC; They answer a Quiz prepared by the teacher with immediate feedback.	Each group prepare a presentation (format of their choice).	Each group present to the class what they have learned; engage in a debate (teacher is the moderator).	Class answers to a Quiz prepared by the teacher with immediate feedback (content from the 4 MOOCs).	An expert in the field of Cibersecurity is invited to the class.

	w8	w9	w10	w11	w12	w13	w14/w15
Online / at distance	Teacher set a challenge (ProjBL) – each group must design and develop OER (format of their choice) to present the topic they have learned about to a younger audience.	Organize the information gathered.	Development of the OER.				Final version of the OER.
In classroom	Each group define the topic, the target audience, the context and the objectives – validated by the teacher.	Each group define the material/format and the tools to develop the OER and present a draft for validation.	Follow-up concerning the development status of the OER.		Each group present to the class their OER and collect feedback from peers and teacher.	Each group make the necessary adjustments to the final version of the OER.	Groups present their OER in an open session (to the target audience, if possible)

at the end... students (and teachers) develop their competences

- enhance knowledge in a specific field
- digital literacy
- critical thinking
- communication
- collaboration
- creativity
- information literacy

bibliography

- Alhazzani, N. (2020). MOOC's impact on higher education. *Social Sciences & Humanities Open, Volume 2, Issue 1*. <https://doi.org/10.1016/j.ssaho.2020.100030>
- Almeida, L. et al (2022). *Inovação Pedagógica no Ensino Superior - cenários e caminhos de transformação*. A3ES READINGS N°16. A3ES. ISBN: 978-989-53667-3-6.
- Liu, C. (2021), The adoption of e-learning beyond MOOCs for higher education. *International Journal of Accounting & Information Management, Vol. 29 No. 2*, pp. 217-227. <https://doi.org/10.1108/IJAIM-08-2020-0129>
- Lopes, A.; Soares, F. (2017). “Flipped Classroom With A Mocc” An E-Learning Model Into A Mathematics Course.. *INTED2017 Proceedings*, pp. 4643-4649. doi: [10.21125/inted.2017.1092](https://doi.org/10.21125/inted.2017.1092)
- OpenAI. (2023). *ChatGPT-4* (Mar 23 version) [Large language model]. <https://chat.openai.com/chat>
- Wang, K., Zhu, C. (2019). MOOC-based flipped learning in higher education: students' participation, experience and learning performance. *Int J Educ Technol High Educ* 16, 33. <https://doi.org/10.1186/s41239-019-0163-0>

Thank you!

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