

Workshop "Promoting the Digital Transformation in Higher Education through the Building of a Cohesive Network for Collaboration and Transfer of Knowledge and Pedagogical Innovations"

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Abstract. The seminar "*Promoting the Digital Transformation in Higher Education through the Building of a Cohesive Network for Collaboration and Transfer of Knowledge and Pedagogical Innovations*" presents the approach and concept developed by seven organisations from Spain, Bulgaria, France, Italy and Portugal in the framework of international project *European Network in D-Flexible Teaching (ENID-Teach)*, funded by the European Commission through the Erasmus + programme, KA220-HED - Cooperation Partnerships in Higher Education, aiming to foster the intra- and inter-university cooperation in providing a coherent and stable response to the urgent need of measures and adjustments related to the digital shift and the provision of quality digital university education informed by modern technology and innovative pedagogy with greater commitment to social inclusion and equality.

Keywords: Digital Education, Flexible Methodologies, Microlearning Methodology, NOOCs /Nano Open, Massive and Online Courses/, Higher Education.

1 Introduction

The crisis caused by the pandemic has significantly impacted universities by enforcing social isolation and necessitating a rapid shift towards digital learning models.

The social isolation measures caused the disappearance of inter-university networks which traditionally are crucial for knowledge sharing and collaboration under normal circumstances. On the other hand, the rapid shift to online learning exposed deficiencies in universities' preparedness. More than sixty per cent of the universities claim to have adapted their systems digitally (U-Multiranks, 2022), but few can provide fully coherent and stable responses to the demands imposed by the dramatic changes in society and economy. During the pandemic, because of the urgency of the situation, higher educational institutions had to adopt education models without a clear idea about what

type of distance or blended learning methodologies to implement. This resulted in stop-gap measures and adjustments with a focus on replicating the in-person model in a digital environment, often without a strong pedagogical foundation. A key factor contributing to this difficulty was the lack of training for lecturers in flexible digital methodologies. To overcome these challenges a partnership led by the National University of Distance Education (UNED) in Spain and involving the company ECO Digital Learning - a technological spin-off of the UNED, the association Savoir Devenir – France, Burgas Free University - Bulgaria, National Distance University of Portugal, University of Catania as well as MAG s.r.l. - a spin-off of the International Telematic University UNINETTUNO, Italy launched the international project ENID-Teach (ENID-Teach Project, n.d.) funded by the European Commission in the framework of the Erasmus + programme, KA220-HED - Cooperation Partnerships in Higher Education.

The ENID-teach project seeks to re-establish a university network that allows the strengthening of connections between European universities, focusing on the teaching staff as intra- and inter-university anchors which facilitate the constitution of a cohesive network for collaboration and transfer of knowledge, co-design and co-creation of accessible and inclusive contents and open educational resources, for sharing of experiences, know-how and good practices related to the implementation of digital and flexible educational practices.

To facilitate knowledge exchange, the project creates a database of lecturers and educators with shared interests in digital pedagogies. This database is also integrated into the Electronic Platform for Adult Learning in Europe (European Commission, n.d.), a community of practice and collaborative space. Additionally, to further expand collaboration opportunities the project leverages the existing networks like the “International cooperation network for knowledge transfer of and digital learning facing post-COVID crisis” (ReCoIn-TaD) which was launched in June 2020 by UNED (Santoveña-Casal & Gil-Quintana, 2021).

The project emphasizes the role of the lecturers, recognizing the importance of "weak ties" – connections between acquaintances – in knowledge acquisition. These connections are seen as more effective than relying solely on strong ties, which tend to share similar information. Weak ties are crucial for disseminating information, fostering collaboration, and building relationships within a network.

ENID-Teach proposes a specialized training program in online teaching methods that faculty members can adapt to their specific subjects and students. The program introduces innovative resources, tools, and methodologies designed to ensure quality digital university education accessible for all students.

By training academics in innovative teaching methods focusing on Connected, Collaborative, Investigative, Active, and Flipped learning approaches and content creation for accessibility and inclusivity through microlearning techniques like microlessons and Nano Open Online Courses (NOOCs), the project aims to establish a network for sharing best practices. This network will be adaptable to various educational scenarios that may arise in the future.

2 ENID-Teach Results

The tangible results are the intellectual efforts that come together to achieve the main objective of digital training in flexible pedagogies and the creation of a cooperation network between academics. These outcomes are:

- Training Programme on digital skills in Flexible and Innovative Methodologies: A microlearning programme in digital training in flexible and innovative pedagogies, which will consist of five multilingual NOOCs (NANO Open, Massive and Online Courses) delivered through the ECO Digital Learning platform in English, French, Italian, Portuguese, and Spanish languages.
- Five NOOCs in flexible methodologies. Each NOOC presents a full online microlearning programme on digital skills training in flexible and innovative teaching practices created based on microlessons or learning nuggets following a blended methodology. The NOOCs are delivered to the targeted globally dispersed audiences in the framework of several iterations. The topics covered by the proposed NOOCs are as follows:
 - Connected and critical methodologies;
 - Collaborative and research methodologies;
 - Active and gamified learning;
 - Inverted (Flipped) methodologies;
 - Designing Flexible Learning e-Programs.
- Guide to good practices in flexible digital pedagogies. Based on the objective results, a guide to good practices in flexible digital pedagogies will be developed. The aim is to reinforce the design and outreach of flexible teaching practices that harness the resilience of the university institutions to different pedagogical scenarios and facilitate educational access to disadvantaged groups.
- European network in D-flexible teaching - an international distributed network of cooperation where teachers are configured as nodes that make inter- and intra-university connections possible and the dissemination of good, digital and innovative teaching practices.
- Effectiveness research of microlearning based on NOOC which allows to advance a new way of learning through microlessons and in open environments.

The main intangible result is the generation of added value to the Erasmus + programme through the offer of this digital training programme. Participating academics will have improved their ability to work in teams, to organize themselves autonomously and to solve day-to-day problems of the teaching practice.

2.1 Training Program on Digital Skills in Flexible and Innovative Methodologies

The developed training program answers the need to develop online training for teachers, lecturers and educators to improve and evolve their skills in flexible digital teaching

practices. In addition, this project outcome search for reinforcement to harness the resilience of university institutions to different pedagogical scenarios and facilitate educational access to disadvantaged groups. Another objective is to create added value for the Erasmus+ programme by offering an online skills training programme in innovative, digital, and multilingual methodologies.

The program is aligned with the European Framework for the Digital Competence of Educators (European Commission (DigCompEdu), 2017) and the UNESCO ICT Competency Framework for Teachers (ICT CFT) Version 3 (UNESCO, 2023) through Open Educational Resources (OERs), in line with the SDG principle of “leave no one behind”.

The training program aimed at university educators for online skills training in digital teaching practices onboards three variables: a distributed, digital and flexible pedagogical model, with a design based on a microlearning programme, microlessons or nuggets and taught as a NOOC. The programme has three innovative elements:

- It is based on a distributed pedagogical model where critical and social teaching practices converge. Teaching in a context characterised by hyperconnection and a distributed network structure where all parties involved operate as links and are interconnected but none is at the centre of the network. Critical and social teaching lifted from classical studies and repurposed for implementation in times of uncertainty, with digitisation providing the flexibility required to respond to the variability of situations, subjects and cultures.
- Programme type: It is a microlearning programme based on microlessons or learning nuggets in multiple formats on the one hand, and on being taught as a NOOC on the other. These two elements combine in a new way of learning and teaching that is innovative and agile.
- Programme content: It entails a series of pedagogical methodologies, each of which is different but all of which focus on the importance of collaboration and connection. They are all methodologies designed to be delivered in an online and/or blended model.

2.2 Nano Open, Massive and Online Courses in Flexible Methodologies

The developed NOOCs provide online training to lecturers on flexible digital teaching practices (connected, collaborative and research, active and invested) and the creation of accessible and inclusive content. To do so, we will harness a blended methodology based on microlearning (microlessons and Nano Open Online Courses) predicated on a critical, social, and network-based pedagogical model where critical and social teaching practices converge.

Each NOOC has a duration of 25 learning hours (including in-class and out-of-class). Learners who complete the course and pass peer-to-peer evaluations receive a certificate from ECO Digital Learning. In addition, once they meet the requirements set by each university, UNED will award them 1 ECTS.

The programme will be available for implementation in any European university for three main reasons:

- it will be designed and taught in five languages, removing language barriers;
- it will boast open and free access through NOOCs on the OPENMOOC ECO E-learning Communication Open-Data digital platform (ECO Digital Learning, S.L., n.d.), giving free access to a list of Massive Open Online Courses in five languages;
- it will feature accessible and inclusive training programmes adapted to the visually and hearing impaired (videos are subtitled and the same content has been provided across different formats to facilitate access).

Content interconnection facilitates digital skills acquisition in an entertaining and agile fashion, interlinking theoretical content with practice, self-assessment activities, discussion, and final evaluation, all in different formats. It is also taught as a NOOC.

The model enables learning to be integrated into daily teaching practice by presenting short lessons and fast and streamlined activities. It permits learning tailored to individual faculty agendas, access to content anywhere/anytime, and the intercalation of active, reflective, critical, agile and interactive content.

2.3 Guide to Good Practices in Flexible Digital Pedagogies

A multilingual document, providing a detailed description of methodologies, that could serve as a guide to launch a process of repurposing teacher planning to a flexible online model that responds to the demands of the digital society.

2.4 International Distributed Network

The project aims to restore the university's connective tissues, enabling the shoring up of bonds among European universities with a special focus on strengthening the university faculty networks.

In distributed networks with no specific centre, knowledge is distributed and shared, comes not from a single source, is built with interaction and flexibility, breaks with the established order, operates across different scenarios and entails more autonomy and critical thinking.

At the European university level, the formation of a cohesive transfer network in flexible digital practices broadens the potential to develop a quality university education model that can deliver effective responses to the uncertainty and future challenges of today's society.

2.5 Effectiveness Research of Microlearning

Throughout the project, data on the different NOOCs iterations will be collected and a more detailed study will be carried out during the last six months. It will be the result of collaborative work between all partners. The results obtained at the end of the project will be analyzed, systematized and described in a scientific publication to make them known to the scientific community.

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