



WP2 - T.2.2 TOOL TO DESIGN TAILORED LEARNING JOURNEYS

Development of the
Pedagogical Educational
Approach



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1. Document Metadata

Document Title: Intermediate Report of the Work Package WP2 (OpenDCO Development of Pedagogical Educational Approach).

Keywords: Competencies; self-assessment tool; learning journeys; learning goals.

Abstract: The purpose of this document is to describe the conduction of the tasks developed in WP2 related to the development of the self-assessment tool that identifies learning gaps in OpenDCO (Open Data City Officer) competencies and determines individual learning experiences and traits, detailing all the activities developed, the applied methodology and the description of the results.



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1.1. Document information

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1.2. Document Change History

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0.2	Leticia Cunico	12/06/2023	Review	Some updates
0.3	Victor Barros	16/06/2022	Draft Version	Report Updated after feedback from the reviewer
0.4	Theodor	26/06/2023	Under Review	Report Updated after feedback from partners
0.5	Kyriakos E. Georgiou	27/06/2023	Under Review	Report Updated after feedback from partners
1.0	Victor	28/06/2023	Complete Version	Report Updated
2.0	Victor Barros, Gonalo Regadas	1/11/2024	Final Version	Report Updated



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2. Introduction

The OPENDCO Project aims to create and strengthen a professional profile focused on open data in smart cities at the European level. The project is to develop a systematic curriculum to address all aspects of an Open Data City Officer (OpenDCO). This curriculum covers various competencies essential for success in the realm of open data, including strategic thinking, long-term planning, decision-making, transparency promotion, and data dissemination.

The purpose of the WP2 is the development of the pedagogical educational approach for the OpenDCO project, aiming to enhance the skills of professionals engaged in the use and management of open data in cities, ensuring effective and individually aligned learning outcomes, as well as benefiting the municipalities.

In this regard, WP2 focuses on the development of a pedagogical educational approach for the OpenDCO project. To achieve this, two specific objectives were identified, as follows:

- 1) Develop a self-assessment tool to evaluate the current competencies of OpenDCO professionals (knowledge, skills, and attitudes) and identify learning goals to enhance their competencies.

The purpose of this tool is to provide professionals with feedback on their level of knowledge, learning preferences, and experience in open data strategies and city management while recommending improvements. This tool will be directly linked to the OpenDCO curriculum and Training Kit, suggesting learning journeys tailored to individual needs.

- 2) Create a tool for designing personalized learning journeys, aligned with specific city needs and individual competence levels identified by the self-assessment tool.

The objective of this tool is to design personalized learning journeys that allow defining learning objectives, target skill levels, required training resources, and learning experiences that best suit the professional's circumstances. This tool also includes the evaluation of success in achieving the established learning goals, milestones of progress, and demonstration exercises that support their achievement. To fulfill the objectives of WP2, the following tasks have been outlined:

- Development of the self-assessment tool
- Development of a tool for designing personalized learning journeys
- Evaluation of the tools
- Organization of a multiplier event
- Publication in a conference/journal

For each of these tasks, a set of activities has been developed along with a schedule for their completion. The table below presents the activities and their corresponding timeline.

Table 1. WP2 Activity Schedule (in project proposal).

ID	Task	Start	End
T2.1	Development of the self-assessment tool	12/2022	05/2023
T2.2	Tool to design tailored learning journeys	12/2022	10/2023
T2.3	Evaluation of tools	01/2023	10/2023

T2.4	Organization of a multiplier event	10/2023
T2.5	Publication to a conference/journal	02/2024

The target participants for the developed tools include decision-makers, policymakers, municipal associations, and professionals involved in aspects of open data for smart cities. The tools will benefit European local governments, associations, and entities interested in innovation and urban development.

It is important to highlight that WP2 is an integral part of a series of WPs designed to accomplish the OpenDCO project. As such, the outcomes of this WP have a direct impact on the other WPs within the project. The diagram below illustrates the interconnection between WP2 and the other WPs of the OpenDCO project.

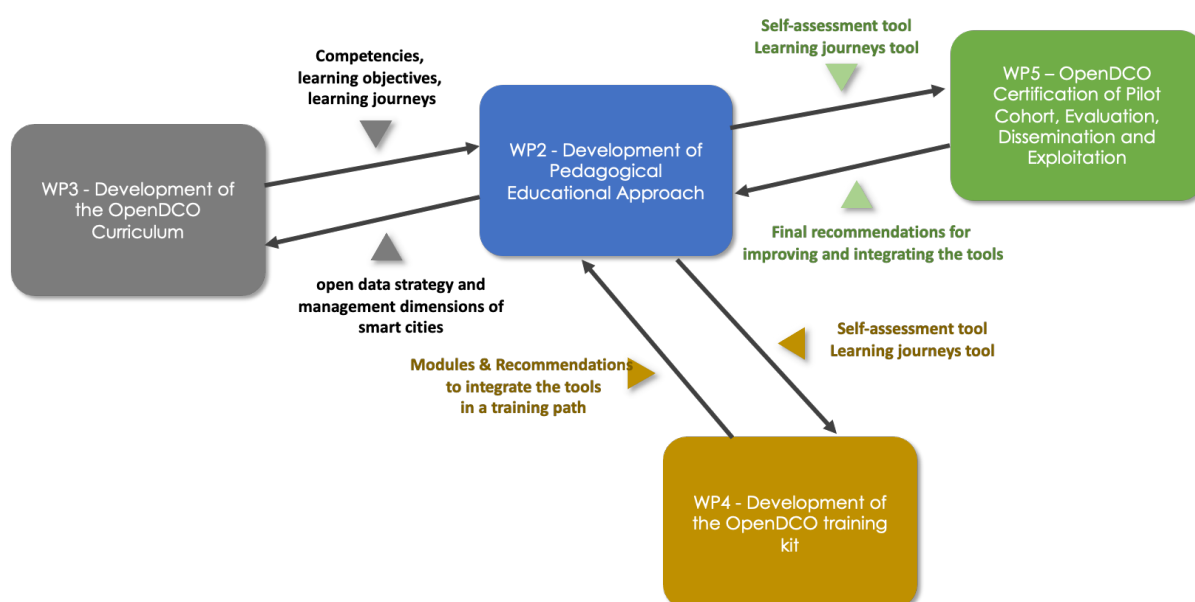


Figure 1. The diagram illustrates the interrelationship among the various WPs of the OpenDCO Project.

The following sections describe the implementation of WP2 and each of the activities (Table 1). As this is an intermediate report, the activities are based on the delivery date of May 2023.

It is worth noting that UMINHO (University of Minho) leads WP2 and oversees all its tasks. However, it should be emphasized that the partner organizations involved in the OpenDCO Project have been actively involved and collaborated in all the development tasks of WP2.



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2.1. Tool to design tailored learning journeys (T2.2)

Once the competence self-assessment tool is defined, the second task of WP2 is to link learning goals and profiles to specific learning activities, resources, progress milestones, and demonstration exercises that support the achievement of those goals.

This action involves identifying important milestones in learners' work activities to measure progress, creating components for fieldwork and on-the-job learning, defining formal and non-formal learning activities to be supported by the e-learning modules to be developed in later stages of the project, based on individual learning experiences and preferences, and reviewing learning journeys to ensure understanding, engagement, and reinforcement.

The tool will allow defining learning objectives, skill levels to achieve, training resources needed, and learning experience that fits best the circumstances in which the learner is developing her/his professional activity.

Based on the results obtained through the OpenDCO Self-Assessment Tool, the tool will suggest areas for improvement in knowledge and skills. Additionally, it will identify individual learning experiences and characteristics to recommend learning journeys that are better aligned with individual needs and preferences.

To simplify the training recommendation process, we assume that all modules are designed to advance competencies to the "Advanced" level (Level 3). Therefore, the OpenDCO project modules will only be recommended if the self-assessment of a particular competence results in proficiency levels 1 (Foundation) and 2 (Intermediate).

Each competence will be translated into a dedicated module. Each module will consist of a set of learning objectives (LOs) designed to guide the learner's progress and mastery of the competence. A minimum of 5 LOs will be identified for each module to ensure comprehensive coverage of the competence.

It is important to note that a minimum set of modules must be completed, regardless of the learner's reported expertise in those competencies. This requirement ensures that the certification requirements, including the minimum number of hours, are met (further details can be found in WP3).

Each module will be structured around a set of learning objectives (LOs) specifically designed to guide learners' progression and mastery of the competence. A minimum of 5 LOs will be identified for each module, ensuring comprehensive coverage of the competence.

To facilitate effective learning, we have incorporated thematic areas within each module. These thematic units provide a framework for learners to explore the central topics related to the competence. By organizing the content into thematic units, learners can focus their studies on specific areas within the competence, allowing for a deeper understanding of key concepts and skills.

This modular approach, combined with the thematic areas, aims to optimize the learning experience, ensuring a systematic and progressive development of competencies. Learners will follow a logical sequence of objectives, engaging in targeted learning activities within each module. This approach ultimately leads to a comprehensive mastery of the competence.



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