

Train-the-trainer Workshop

WP D5.2



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Work Package 5: Professional Training

Deliverable D5.2 Train-the-trainer Workshop



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Author(s)	WP5 partner group: Siobhán McAndrew, Anthony Kilcoyne, Claude Reuter, Vanessa Hoff, Valerie Pfeffer, John Hurley, Deirdre Butler,
List of contributors	All partners
Deliverable Manager	Siobhán McAndrew, Anthony Kilcoyne



ABSTRACT	The Dissemination and Sustainability Strategy frames the communication and dissemination activities to raise the visibility of the DALI4US project, to engage project stakeholders and to share the project results by defining target groups, communication approaches, promotional materials, communication and dissemination channels. It includes sustainability strategy to ensure sustainability, mainstreaming and multiplication of the project results.
KEYWORDS	Communication, Dissemination, Sustainability, Promotion

Dissemination level		
PU	Public	
PP	Restricted to project partner (including the Commission)	X
RE	Restricted to a group defined by the consortium (including the Commission)	
CO	Confidential, only for members of the consortium (including the Commission)	





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1. Train-the-Trainer Workshop 1 Overview

Scope and Sequence Link

<i>Rationale</i>
<ul style="list-style-type: none">• The DALI4US Train-the-Trainer programme aims to develop a national cohort of confident, knowledgeable, and skilled facilitators who will lead professional learning in data literacy for upper primary education.• This five-part programme builds capacity through structured, research-informed workshops combining unplugged activities, classroom application, digital tool use (OrangeEDU), and shared professional reflection.• Through exploring definitions and the role of data in everyday life, participants develop a shared understanding of data literacy.• They then examine where data appears in the curriculum and engage in hands-on tasks—particularly focused on data visualisation—to build confidence in teaching pupils to collect, interpret, and communicate data effectively in a data-driven world
<i>Professional Learning Features</i>
<ul style="list-style-type: none">• Design-Based Research: Iterative refinement of workshop content and design based on teacher feedback.• Blended Learning: In-person sessions supported by online mentoring and asynchronous tasks.• Choice Boards: Participants explore tasks graded by theme and difficulty level (e.g. Candy Game, What Are the Gnomes Doing) between events.• Collaborative Leadership: Past participants co-lead sessions and group reflections.• Practical Tools: Use of Book Creator and OrangeEDU to support classroom integration.





1.1 Structure & Sequence

Event	Theme	Key Focus Areas	Delivery	Who provides?
Professional Learning Event 1 (PLE 1) Oct–Nov 2025	Data Telling a Story	<ul style="list-style-type: none"> - Introduction to Data Literacy & project aims - Statistical vs Data Literacy - Data in curriculum - Unplugged tasks (e.g. Candy Game, Teachable Machine) - Overview of OrangeEDU - Visualising data 	Face-to-face (1 day-5 hours) 2 * 2.5 hrs modules	Explorers
Implementation in the classroom				
PLE 2 Dec 2025	Recommender Systems & Big Data	<ul style="list-style-type: none"> - Netflix & cartoon recommendation tasks - Big Data concepts - OrangeEDU practice - Classroom links - Implementation discussion & supports 	Face-to-face (1 day-5 hours) 2 * 2.5 hrs modules	Explorers
Implementation in the classroom				
Check-in Call 1 Jan 2026	Inquiry & Peer Support	<ul style="list-style-type: none"> - Inquiry questions - Sharing practice - Planning for integration 	Online (1 hour)	Small experimentation teachers
PLE 3 Feb 2026	Classification Trees & Prediction	<ul style="list-style-type: none"> - Gnomes & quadrilaterals activities - Classification trees - Grammar tree & Gaelige links - Book Creator task - Reflective discussion 	Face-to-face (1 day-5 hours) 2 * 2.5 hrs modules	Explorers
Implementation in the classroom				
Check-in Call 2 Mar 2026	Progress Check & Support	<ul style="list-style-type: none"> - Implementation progress - Learning scenario sharing - Peer advice 	Online (1 hour)	Small experimentation teachers
PLE 4 Apr 2026	Clustering & Learning Design	<ul style="list-style-type: none"> - Unplugged + plugged clustering - Adapted climate zones/food activity - Book Creator template - Data collection and use - Theme of 'Climate/Local Weather' 	Face-to-face (1 day-5 hours) 2 * 2.5 hrs modules	Explorers





		- Scenario design - Theme of 'Climate/Local Weather'		
Implementation in the classroom				
PLE 5 May/June 2026	Shared Learning Day	- Presentation of classroom experiences - Theme of 'Climate/Local Weather' - Pupil work sharing - Peer-led facilitation - Co-creation and forward planning	Face-to-face (1 day- 5 hours) 2 * 2.5 hrs modules	Explorers
Implementation in the classroom				

Participant Intended Learning: *Identify the intended learning for attendees from their engagement with this PLE. Referring to sessions may support here.*





- 1. Develop a Conceptual and Practical Understanding of Data Literacy in Primary Education**
 - Build foundational knowledge of data literacy, statistical literacy, and data science, and understand their relevance in a primary school context.
 - Engage with real-world examples that show how data is used to make decisions, fostering their ability to translate abstract concepts into meaningful classroom practice. *(Developed in Event 1 and sustained throughout all sessions.)*
- 2. Confidently Design and Implement Unplugged and Digital Data Literacy Learning Tasks**
 - Gain experience in facilitating engaging unplugged activities (e.g. Candy Game, Gnomes, Clustering) that introduce complex data concepts in accessible ways.
 - Use OrangeEDU to support classroom-based data inquiry, enabling pupils to analyse, predict, and explore data using technology. *(Central in Events 2, 3, and 4.)*
- 3. Apply the DALI4US Data Literacy Framework to Guide Lesson Design**
 - Use the “Explore – Explain – Extend” model and Book Creator templates to structure lessons that build pupils’ reasoning, questioning, and pattern recognition skills.
 - Plan cross-curricular learning experiences that incorporate both data literacy and the wider competencies outlined in the Irish Primary Curriculum Framework. *(Explored and applied across Events 1–4.)*
- 4. Reflect on, Evaluate, and Adapt Teaching Practices Based on Implementation**
 - Share classroom insights, pupil work samples, and learning outcomes to support peer reflection and scenario refinement.
 - Evaluate the success of various approaches using feedback and co-constructed criteria to enhance practice.
- 5. Build Capacity to Lead and Scale Professional Learning in Data Literacy**
 - Take on a leadership role in promoting and disseminating data literacy across their school and regional networks. Collaboratively contribute to a growing community of practice by facilitating discussion, co-designing resources, and mentoring others. *(Reinforced in Event 5 and through involvement in co-facilitation across sessions.)*





Outline of Session 1

Event 1: Data Telling a Story Timing: Late October / Early November 2025

Learning Objectives:

- Distinguish between statistical literacy and data literacy
- Understand the core idea of "data telling a story"
- Explore the data literacy framework (explore phase)
- Engage with unplugged activities to develop curiosity around data

Content Covered:

- Project overview and rationale
- Data Literacy vs Statistical Literacy
- Framework introduction
- Tasks: Intelligent Paper, Candy Game, Teachable Machine
- Brief OrangeEDU demonstration

Learning in Focus: Understanding the distinction between statistical literacy and data literacy, and how data can be used to tell a story through inquiry-based tasks.

How will the participants experience the intended learning?: Participants will engage in hands-on unplugged tasks (e.g. Candy Game, Intelligent Paper, Teachable Machine) that model how data can spark curiosity and support storytelling. They will also explore the Data Literacy Framework and receive a brief introduction to OrangeEDU.

How will we connect learning experiences?

The session builds from foundational concepts and definitions into practical, exploratory tasks and concludes with reflective discussion on classroom application.

Time Allocated: 6 hours (including breaks and reflection)

- Project introduction and policy background (30 mins)
- Framework and visualisation activity (90 mins)
- Unplugged tasks rotation (2.5 hours)
- OrangeEDU overview (45 mins)
- Reflection and group discussion (45 mins)

How have the tenets of PLE design supported this PLE?

- **Grounded in practice:** The session connects directly to educators' professional contexts, introducing data literacy through familiar, real-world examples.
- **Designed for collaborative learning:** Interactive discussion and shared exploration of data literacy definitions allow participants to co-construct knowledge.





- **Sustained over time:** As the first of multiple connected sessions, this session lays the conceptual foundation for deeper exploration and ongoing reflection.
- **Underpinned by research and evidence:** The session draws on current policy and research around data literacy, data science, and the evolving digital curriculum.
- **Reflective and exploratory:** Opportunities for reflection help participants consider how these ideas relate to their pupils' experiences and future classroom practice





Outline of Session 2

Event 2: Recommender Systems & Big Data Timing: Early December 2025

Learning Objectives:

- Explore how recommender systems work (Netflix scenario)
- Understand how big data is collected and used
- Use OrangeEDU to support recommender logic

Content Covered:

- Netflix cartoon recommender activity (unplugged)
- Introduction to recommender system principles
- Afternoon: OrangeEDU tasks using recommender data
- Discussion on the implications of Big Data in classroom contexts

Learning in Focus:

- How recommender systems (e.g. Netflix) function, and how Big Data is gathered, processed and used to personalise digital experiences.

How will the participants experience the intended learning:

- Through unplugged simulation of a recommender system, and guided OrangeEDU tasks based on recommender datasets. Participants will discuss ethical and curricular links.

How are learning experiences connected?:

- Tasks move from unplugged modelling to plugged-in application using OrangeEDU, followed by policy reflection and classroom scenario planning.

Time Allocated: 6 hours

- Recommender system unplugged task (90 mins)
- Big Data discussion and group activity (60 mins)
- OrangeEDU recommender system exercise (2 hours)
- Reflection and Q&A (1 hour)

Support for Learning: Guided walkthroughs of Orange; peer pairing; supported reflections; scenarios relevant to children's experiences





How will these experiences support the intended learning?

They help participants link machine learning principles to real-world tools and build confidence in leading similar activities with pupils.

How have the tenets of PLE design supported this PLE?

Anchored in practical, familiar digital experiences; collaborative task work; supported by visuals and exploratory tools; co-constructed meaning through reflection. **PLE Tenets Applied:** Social learning, active inquiry, scaffolded progression from concrete to abstract.





Online Check-in 1 (January 2026)

Learning Objectives:

- Reflect on classroom implementation progress
- Share insights and questions with peers
- Refine understanding of data tasks

Content Covered:

- Inquiry questions from each participant
- Peer exchange of practical examples

Learning in Focus: Using reflective practice and collaboration to support learning transfer

Learning Experience: Structured discussion in breakout groups, supported by reflection prompts

Connection of Learning: Draws directly from Event 1 & 2 activities and sets expectations for Event 3

Time Allocated: 1 hour

Support for Learning: Peer scaffolding; facilitated inquiry check-in

PLE Tenets Applied: Reflection, teacher voice, peer learning





Outline of Session 3

Event 3: Classification Trees & Prediction Timing: February 2026

What is the learning in focus?

Understanding classification logic and how decision trees are used in data science to support predictive reasoning.

How will the participants experience the intended learning?

Participants complete classification tasks (e.g. "What Are the Gnomes Doing?", quadrilateral sorting) and explore grammar tree models using OrangeEDU and Book Creator.

How will we connect learning experiences?

Each task builds on the previous, from unplugged classification to digital construction of trees to lesson design using Book Creator.

How much time will be given to learning experiences in the session?

Approx. 6 hours including:

- Classification concept activity (60 mins)
- Grammar tree and language/(Gaeilge/English) integration task (90 mins)
- OrangeEDU classification (90 mins)
- Book Creator lesson planning (60 mins)
- Reflection (30 mins)

How will these experiences support the intended learning?

They model progression from conceptual understanding to curriculum-embedded lesson design and classroom readiness.

How have the tenets of PLE design supported this PLE?

Encourages reflection and construction; interdisciplinary and curriculum-aligned; offers collaborative peer feedback; builds capacity through practice.

Learning Objectives:

- Understand classification as a data process
- Use OrangeEDU for basic decision tree creation
- Design classroom-aligned classification scenarios





Content Covered:

- Gnomes activity; Quadrilateral task
- OrangeEDU Grammar Tree example
- Use of Book Creator templates for framing lesson design

Learning in Focus: Building classification trees and understanding data decision-making paths

Learning Experience: Collaborative construction of classification models; use of teacher-designed data sets

Connection of Learning: Linked directly to Event 2's predictive focus; builds on visualisation and logic

Time Allocated: 6 hours

Support for Learning: Peer modeling; hands-on software practice; structured reflection

PLE Tenets Applied: Meaning-making through guided construction; content-knowledge application





Online Check-in 2

Online Check-In 2 Timing: March 2026

Learning Objectives:

- Support classroom implementation
- Evaluate and adjust lesson integration
- Share and critique learning scenarios

Content Covered:

- Review of classroom implementation
- Group feedback on lesson designs

Learning in Focus: Refinement of practice and peer learning

Learning Experience: Small group sharing; reflection and peer critique

Connection of Learning: Draws on Event 3 scenarios, deepening understanding ahead of Event 4

Time Allocated: 1 hour

Support for Learning: Reflective prompts, shared documentation of progress

PLE Tenets Applied: Collaboration, teacher-led inquiry, ongoing reflection





Outline of Session 3

Event 4: Clustering & Learning Design Timing: April 2026

What is the learning in focus?

Using clustering techniques to explore patterns in data and guide pupil-led inquiry.

How will the participants experience the intended learning?

Participants will take part in a modified Climate Zones activity, collect real or simulated data, and use OrangeEDU to visualise clusters.

How will we connect learning experiences?

Unplugged climate classification transitions into data design and plugged analysis using Book Creator and OrangeEDU, culminating in peer feedback.

How much time will be given to learning experiences in the session?

Approx. 6 hours including:

- Introduction and context setting (30 mins)
- Unplugged clustering simulation (90 mins)
- Data collection & Book Creator design - 'Climate/Local Weather' (90 mins)
- OrangeEDU clustering (90 mins)
- Design sharing and feedback (60 mins)

How will these experiences support the intended learning?

They build technical confidence, highlight cross-curricular opportunities, and support lesson co-construction.

How have the tenets of PLE design supported this PLE?

Promotes applied learning; values participant experience; aligns with school-based data themes; supports diverse classroom application.





Outline of Session 3

Event 5: Shared Learning Day Timing: May 2026

What is the learning in focus?

Reflection, dissemination, and evaluation of classroom implementation of data literacy practices.

How will the participants experience the intended learning?

Teachers present learning scenarios and samples of pupil work; engage in structured peer feedback and thematic group discussions.

How will we connect learning experiences?

All events contribute toward this final reflective session. Returning participants will co-lead, helping bridge past and current cycles.

How much time will be given to learning experiences in the session?

Approx. 6 hours including:

- Participant presentations - 'Climate/Local Weather' (2 hours)
- Group discussions and focus groups (2 hours)
- Collaborative planning for scaling and co-creation (1.5 hours)
- Final reflection and closing (30 mins)

How will these experiences support the intended learning?

Participants will consolidate their learning, engage in knowledge-sharing, and define next steps for whole-school or national scaling.

How have the tenets of PLE design supported this PLE?

Strengthens community of practice; foregrounds practitioner voice; highlights co-construction; embeds reflective professional inquiry.

