ERASMUS+ VET · JOB SHADOWING MOBILITY · FINAL PRODUCT

AI-Supported Educational Content System

for Erasmus+ projects and cross-curricular teaching in Computer Science and ICT

INGEST LEVANTE S.L. · Alicante, Spain

27 April – 1 May 2026

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22 – 26 June 2026

Moldovanu Florin



Certificates awarded at the close of the mobility, Alicante

THE MOBILITY

Host organisation and participating teachers

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job shadowing in an operational IT company and its partner schools, focused on the hands-on integration of AI in teaching.

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Guided tour of the technology workshop at the partner school

OBSERVATION FOCUS

Prompt engineering · iterative refinement · collaborative task execution · multimodal output

OBJECTIVE

From shortcut to cognitive scaffold

The observed instructional design was procedural and cognitively demanding: learners generate, refine, validate, transform and present content, scaffolded by the tutor and gradually internalised. This project turns that sequence into a replicable model for three interrelated domains.

CS

Computer Science

Instruction becomes a high-level exercise in algorithmic synthesis — the focus shifts from manual coding to the rigorous validation of computational logic.

ICT

ICT & digital literacy

A strategic discipline of AI-driven information processing and system automation, rather than surface-level tool familiarity.

VET

Erasmus+ VET

Project design, activity structuring, documentation and dissemination supported end-to-end by AI workflows.

The core objective is to redefine AI's role: from a simple shortcut to a foundational cognitive scaffold within technical curricula.

PEDAGOGICAL FRAMEWORK

Four theoretical anchors

01

Constructivism & constructionism

Active knowledge construction through the creation of tangible digital artifacts.

02

Problem-Based Learning

Real-world computational challenges replace traditional task-based methods.

03

Cognitive apprenticeship

Complex debugging and architectural processes are modelled, scaffolded, then internalised.

04

TPACK

The intersection of AI literacy, algorithmic logic and critical digital competence.

Each application developed within the project is grounded in this framework and mapped onto the operational cycle observed during the mobility.

OPERATIONAL MODEL

The five-stage learning cycle

1

Algorithmic synthesis

Structured logic prompting to move from problem to plan.

2

Structuring & refinement

Iterative refactoring and debugging of the generated draft.

3

Validation & evaluation

Security auditing, edge-case testing, performance comparison.

4

Transformation & portability

Cross-language conversion and multimodal integration.

5

Automation & scalability

Custom GPTs, API integration and advanced workflow tools.

Every application that follows corresponds to one or more of these stages, ensuring coherence between the practice observed in Alicante and the methodology implemented in the classroom.

Development workflow (1–2) · critical evaluation (3) · transformation and multimedia (4) · automation, differentiation and project management (5)

APPLICATION 1

AI-supported content development workflow

1. **Prompt-based generation**
   A role prompt — “Act as a Coding Mentor…” — produces the first draft of the logic or a 5-slide plan.

2. **Structural refactoring**
   The draft is modularised: get_user_input(), calculate_average(), display_results().

3. **Simplification & adaptation**
   Loops replace repetition; jargon is rewritten with analogies for younger learners.

4. **Readability & documentation**
   Descriptive variable names, explanatory comments, consistent tone, no redundancy.

5. **Validation & verification**
   Edge cases and error handling, cross-checked against documentation and compilers.



Observation of a live coding lesson in the host school's ICT lab

Impact: structural awareness in logic design · algorithmic clarity · debugging and refactoring skills · autonomy in system architecture

APPLICATION 2 · CONTENT TRANSFORMATION

One concept, many formats

STARTING POINT — HOW PASSWORDS ARE STORED

Databases never store plain-text passwords: they use cryptographic hash functions such as SHA-256 to create a unique fixed-size string.

1	**Oral script**	The technical text becomes a 45-second script for a classroom presentation.
2	**Simplification**	The script is rewritten around a real-world analogy for a non-technical audience.
3	**Key idea extraction**	The three most important ideas are isolated for retention and assessment.
4	**Visual structuring**	A single slide — “Why Hashing Beats Plain Text” — with The Process and Key Benefits.



Hardware demonstration .

Impact: active knowledge transformation · adaptive communication for any audience · focus on logical information structure

APPLICATIONS 3 & 4

Critical evaluation and multimedia production

03 Critical evaluation workflow

"Generate two versions of an explanation for Recursion: one using a mathematical approach and one using a real-world analogy."

- Compare the two outputs side by side
- Identify strengths and weaknesses of each
- Justify the final selection explicitly
- Detect errors — e.g. the claim that QuickSort is always faster than MergeSort

Improved analytical skills · awareness of AI limitations · reduced passive reliance on AI

04 Multimedia production

"Create slide content based on this explanation." · "Highlight the key points for presentation."

- Select the key information from the source
- Structure it with AI support
- Design the visual output in Canva and presentation tools
- Present the result to the class

Improved digital competence · enhanced engagement · better information retention

Students are required to cross-check every AI output against technical documentation, compilers or reliable databases.

APPLICATIONS 5 & 6

Automation and inclusive differentiation

05 Automation with MyGPT

Task-specific assistants are configured once and reused across classes and projects.

- **Lesson generation**
- **Code simplification**
- **Error correction**
- **Project structuring**

Impact: reduced workload · increased efficiency · personalised support for every student

06 Differentiation & inclusion

The same content is regenerated at the level of each learner, supporting mixed-ability classrooms.

“Rewrite this explanation of Blockchain technology.”

“Explain the concept of Variables to a 5th-grade student using a toy box analogy.”

Impact: supports mixed-ability classrooms · increases accessibility of technical content

APPLICATION 7

AI in Erasmus+ VET project management

Structuring activities

Generate	"Propose learning activities for a 2-week IT mobility focused on web development and teamwork."
Detail	Tasks, duration, tools and expected outcomes — used in the Learning Agreement.
Align	Activities rewritten to show the technical and soft skills developed.
Schedule	Activities organised into a structured Day 1–10 mobility plan.
Equip	Worksheets, instructions and project briefs used directly in training sessions.

Dissemination & reporting

Describe	A short project description for the school website, aimed at students and parents.
Promote	Three short social media posts promoting the student mobility in IT.
Adapt	The same text in two registers: formal reporting and informal dissemination.
Report	Mobility activities summarised into interim and final report paragraphs.
Involve	Students write reflections, describe activities and prepare presentations.

CROSS-CUTTING USE ACROSS THE PROJECT CYCLE

A · Selection | **B · Preparation** | **C · Implementation** | **D · Evaluation**

JOB SHADOWING IN PRACTICE

The mobility in pictures



Comparing curricula and textbooks with host teachers



Management of teaching and learning resources



Observation in the ICT and computing rooms



Hardware, repair and 3D printing workshop



Students at work during a live lesson

Observation covered school departments and their planning documents, ICT and technology laboratories, an operational IT company — hardware, repair and 3D printing — and live lessons with students.

CONCLUSION

Structure is what turns AI into a scaffold

Grounded in structured pedagogical workflows, AI integration significantly enhances:

- **Teaching effectiveness**
- **Student engagement**
- **Project implementation quality**

By aligning closely with the practices observed during the mobility, the model ensures authenticity, coherence and transferability across schools and Erasmus+ projects.



Alicante, 27 April – 1 May 2026 ·