Teaching and Learning Online

Learning Situation Description Sheet

Title of the Learning Situation:
“Create Your Professional e-Portfolio with GitHub Pages”

Digital identity, professional development, and mastery of web and AI technologies.

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1. Institution where it takes place and/or source of information if it is a real LS. If you created the LS yourselves, indicate it here.

Fictional proposal for educational and training purposes.

2. Specific educational context

(stage, educational level, curricular area, training action…)

- **Stage / Student profile:** Adults or young learners with an initial technical profile (basic programming or web design).
- **Competency areas:** Web development, digital identity, collaborative tools, advanced digital competence.
- **Modality:** Hybrid learning (face-to-face sessions and online practical activities).
- **Duration:** 12 hours (8 sessions).
- **Participants:** Group of 15–25 technical students with basic prior knowledge (HTML, CSS, and JavaScript).

3. Brief description of the situation *(objectives, competencies developed, activities, assessment…)*

3. 1. Brief description of the situation

Participants will learn to build a complete, fully customized professional e-portfolio using GitHub Pages, web tools (HTML, CSS, JavaScript), version control, and integration of AI tools to accelerate creative and technical processes.

The goal is not to create a standard template, but a unique digital identity, managing repositories, static pages, multimedia assets, and interactive features such as comments and feedback through GitHub Discussions.

3.2. Learning objectives

- Create and publish a complete e-portfolio with GitHub Pages.
- Improve technical skills in HTML, CSS, and JavaScript.
- Use AI tools to generate and optimize content and code.
- Master Git and GitHub to manage versions and repositories.
- Publish multimedia content and structure different pages.
- Integrate community and feedback systems (GitHub Discussions + Giscus).
- Foster autonomy and self-learning skills in digital environments.

3.3. Inclusion, accessibility, and attention to diversity

Following Universal Design for Learning (UDL) principles:

- Multimodal materials: text, video, and code examples.
- Flexible learning: exercises with different depth levels.
- Adapted pace: students can test code locally or online.
- Automated support: AI coding assistants for students needing help.
- Web accessibility: examples of good practices (alt text, contrast, semantic structure).
- Individual support: assigning technical roles based on strengths (editing, debugging, creativity).

3.4. Basic competencies

- HTML, CSS, and JavaScript fundamentals.
- GitHub and GitHub Pages functionality.
- Version control with SourceTree and VS Code.
- Multimedia integration in static websites.
- Implementation of overlays and interactive components.
- Management of digital discussions and feedback.
- Use of generative AI tools to create and refine code and design.

3.5. Main activities

Session 1 – Introduction to GitHub Pages (1h)

- Create GitHub account
- Activate GitHub Pages
- Create “Hello World”
- Publish using Actions

Session 2 – HTML/CSS/JS leveling (3h)

- Review HTML and CSS (30 min + 30 min)
- Basic JavaScript (2h)

Session 3 – Portfolio structure design (1h)

- Example analysis
- Write portfolio structure
- Generate initial code structure for index.html with AI

Session 4 – Local development (1h)

- Install VS Code and Live Server
- Clone repository
- Make changes and publish
- Test reverting a commit

Session 5 – Uploading multimedia content (1h)

- Integrate images, PDFs, videos, and audio

Session 6 – Creating new pages (3h)

- Create new HTML files with AI
    - (1h) Create basic components with AI
    - (1h) Create advanced components with AI
    - (1h) Create advanced designs from image sketches with AI
- Link pages

Session 7 – Feedback system with GitHub Discussions (1h)

- Activate Discussions
- Integrate Giscus
- Create discussion for the different pages created

3.6. Formative and summative assessment

Evidence

- Complete repository
- Website published on GitHub Pages
- HTML, CSS, and JS code
- Multimedia and overlay integration
- Functional Discussions/Giscus setup
- Self-assessment document

Rubric criteria (0–16 points)

- Content structure and organization (0–4)
- Technical code quality and functionality (0–4)
- Visual design and customization (0–3)
- Repository autonomy and management (0–3)
- Feedback application and continuous improvement (0–2)

Continuous assessment

- Project development feedback
- Peer review
- Practical tests

3.7. Roles and functions

Teacher role

- Technical guide and mentor.
- Provides guidance on GitHub, VS Code, and AI.
- Reviews code and gives constructive feedback.
- Ensures good digital security practices.

Student role

- Actively develops their e-portfolio.
- Uses GitHub professionally.
- Investigates and learns autonomously.
- Participates in collective feedback and discussions.

4. ICT tools and resources

- GitHub and GitHub Pages (publishing).
- VS Code + Live Server.
- Git for version control.
- HTML/CSS/JS.
- Generative AI tools (ChatGPT, Claude, Copilot...).
- Canva for optional visual elements.
- Giscus and GitHub Discussions for feedback.

5. Psychological paradigms underlying the learning situation

This learning situation is based on a combination of psychological paradigms working complementarily.

- **Constructivism:** learners build meaningful knowledge through direct experience—here, creating their own web portfolio and solving real challenges.
- **Cognitivism:** students must organize, understand, and apply technical concepts such as version control, code structure, or file management, encouraging metacognition and planning.
- **Connectivism:** learning occurs in networks; students interact with GitHub, AI tools, online documentation, and technical communities.
- **Experiential learning:** knowledge is built through continuous practice, trial–and–error, and reflection on one’s own process.
- **Humanistic approach:** autonomy, creativity, and the construction of an authentic digital identity are encouraged, giving personal meaning to the project.