# D295 Task 4: E-Learning - Assessments and Feedback

## I. Introduction

**This assessment and feedback plan supports the collaborative quest-based e-learning experience outlined in Task 3, where students design and build a web application using JavaScript, APIs, AI (Gemini), and databases. The goal is to integrate authentic formative and summative assessment checkpoints that reinforce teamwork, accountability, and mastery of computational and collaborative skills.**

**The assessment framework combines structured team-based checkpoints with individualized performance checks. Team Checks focuses on Scrum-based collaboration, design quality, and prototype functionality. Individual Checks assess personal contributions through GitHub analytics, issue tracking, and live review feedback. This dual-layer model ensures both collaborative competence and individual accountability.**

## II. E-Learning Experience Plan

### A1. Components

* **Topic:** Collaborative Quest Development with JavaScript APIs, AI, and Databases
* **Description:** In this e-learning experience, we, the class, worked together to design and build a quest-based web application. We use JavaScript to connect to APIs (microblog), integrate AI (Gemini), and learn to store data with a database. Our project is collaborative: we share code, debug together, and help each other design a great user experience.
* **Grade:** High School (Grades 10–12)
* **Learning Goal:** Work as a team to create a functional, ethical, and engaging quest app using real-world coding and collaboration skills.
  + Team 1: West Coast Quest
    - Food, Travel, Sports guided by AI
  + Team 2: Digital Famine Quest
    - Inter-planet restoration of Microblogging, Digital Literacy, AI, etc
* **Learning Objectives:**
  1. Use JavaScript to fetch data from APIs and handle responses with promises in User presented API.
  2. Integrate AI (Gemini) to enhance the quest experience.
  3. Implement database CRUD operations for quest progress and rewards.
  4. Design user experiences that are fun, accessible, and meaningful.
  5. Apply digital citizenship principles in all project work.
* **Academic Standards:**
  + ISTE Standard 1.4: Innovator Designer
  + ISTE Standard 1.5: Computational Thinker
  + ISTE Standard 1.7: Global Collaborator

## III. Formative Assessments

**B. Learning Objective Selected: Implement CRUD database operations for tracking user progress and rewards.**

* Checkpoint 1 - Scrum Master Live review. Reviewing Design, which is composed of Ideation and Storyboard.
* Checkpoint 2 - Assistant Scrum Master Live Review. First integrations, which focus on Navigation and Classroom Integrations

### B1. Formative Assessment

**Students complete Team Checkpoint 2: Assistant Scrum Master Live Review, where they demonstrate their first working integration of navigation flow, database connections, and classroom features. Each team presents its implementation during a live code review session.**

**Assessment Activity: The Assistant Scrum Master leads the live review while teammates demonstrate their part of the integration. The instructor observes teamwork, evaluates CRUD operations, and the recorder gathers immediate feedback through GitHub issues.**

### B2. Technology Tool

**Technology: GitHub (Pull Requests, Issues, and Project Kanban)**  
  
**Justification: GitHub’s collaborative features support formative assessment by allowing real-time code inspection, commenting, and progress tracking. Using Issues and Pull Requests, the instructor can pinpoint logic errors, comment on database design, and provide targeted feedback linked directly to the relevant code.**

### B3. Feedback Process

**Feedback Strategy: Feedback is given both live during the review (verbal and on-screen walkthroughs) and asynchronous through GitHub issue threads. Each student receives feedback within 24 hours, referencing commit IDs and PR comments for precision. Teams are encouraged to reply to feedback comments or mark issues as 'resolved' once addressed.**

**Technology for Feedback: GitHub + VSCode Live Share**  
  
**Explanation: Live Share enables real-time code collaboration while GitHub anchors written feedback in the repository. Students can instantly apply instructor or peer suggestions and verify improvements collaboratively. This combination ensures timely, traceable, and authentic feedback.**

## IV. Summative Assessment

**The** *Night at the Museum* Prototype Presentation serves as the summative **team** assessment. Teams present their quest application prototype in an **open review walk-through**, where teachers, peers, and local tech mentors visit each team’s station, explore the app, and discuss its features. The focus is on usability, design quality, data functionality, and teamwork.

For the **Individual Final**, each student participates in a live review using Issues from the Kanban board and GitHub Analytics data—including commits, pull requests, and issue activity.

Both events require a **functional** prototype demonstrating CRUD, API, and AI features, professional presentation and GitHub documentation, and clear evidence of iteration based on formative assessments and prior feedback.

### C1. Accommodations for Demonstrating Competency

1. Video Submission Alternative: Students who prefer not to present live may submit a recorded demo of their app with voiceover explaining their code and features.  
2. Written Technical Reflection: Students who struggle with verbal presentation may submit a reflection paper summarizing their contributions, challenges, and how they applied instructor feedback.

## V. Reflection Opportunities

D1. Mid-Project Reflection (Formative): During Checkpoints 1 & 2, the Scrum Master or Assistant Scrum Master conducts a Live Review, and students write a short reflection in a GitHub Issue and design choices, identifying what worked well and what needs revision.

D2. End-of-Project Reflection (Summative): After Night at the Museum, each student completes an individual reflection post on their GitHub Pages Blog. They summarize their learning growth, teamwork contributions, and feedback-guided improvement.

## VI. References

* International Society for Technology in Education (ISTE). (2021). ISTE Standards for Students. <https://www.iste.org/standards/iste-standards-for-students>
* GitHub Docs. (2025). <https://docs.github.com/>
* Microsoft. (2025). VSCode Live Share. <https://visualstudio.microsoft.com/services/live-share/>
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