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MDPI

Designing an e-Portfolio Framework for Competency-Based Assessment in a Master's-Level Instructional Design Program

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Introduction & Background

Graduate programs in instructional design (ID) face the challenge of aligning learning outcomes with professional competencies. Traditional written examinations often fail to capture authentic work products developed for industry-oriented careers.

The Problem: Need for alternative models to document student progress and showcase applied skills.

Traditional Approaches: Written comprehensive examinations often fail to capture applied skills and authentic work products essential for professional practice.

Professional Realities: Graduates entering industry-oriented careers need to demonstrate tangible instructional design capabilities and development.

E-portfolios provide a dynamic platform to demonstrate competency through actual design artifacts

Research Purpose

This study presents the design and pilot implementation of an e-portfolio-based assessment framework to:

1. Support competency-based program evaluation.
2. Help master's students document and showcase professional artifacts.
3. Demonstrate authentic instructional design capabilities to industry stakeholders.

Theoretical Grounding

Global Standards

The framework is firmly grounded in the global competency standards developed by the **International Board of Standards for Training, Performance and Instruction (IBSTPI)**.

IBSTPI standards serve as the core foundation for:

- Mapping program learning outcomes.
- Organizing professional portfolio artifacts systematically.

Mixed-Methods Methodology

A rigorous mixed-methods research design guides the development, validation, and evaluation processes:

Stakeholder	Data Collection Method
Students & Alumni	Survey & Open-ended responses
Faculty & Partners	In-depth Interview

Current Students & Alumni: Surveys and open-ended responses to identify perceived value and usability.
Faculty Members & Industry Partners: In-depth interviews to validate learning outcomes and establish portfolio assessment criteria.

Needs Assessment Results

Student Voice: "We need ongoing feedback, clear milestones, and exemplars of high-quality portfolios."
Action: Structured scaffolding & milestones.

Student Voice: "Need broader exposure to industry-relevant tools."
Action: Hands-on workshops & diverse tool practice.

Student Voice: "Lowest confidence in Assessment (2.3) and Research Application (2.5) within real contexts."
Action: Real-world assignments & iterative cycles.

Student Voice: "We need internships beyond Higher Education and more online flexibility."
Action: Expand internship network & scheduling.

Discussion & Interpretations

Lack of Structured Scaffolding: Students experience high anxiety and lower confidence due to a lack of systematic guidance across the curriculum.

Limited Tool Diversity: Restricts student competitiveness in transitioning to non-academic or corporate instructional design roles.

Theory-Practice Gap: Low self-efficacy in directly applying research and assessment models to practical instructional solutions.

Proposed Framework Components

Program-wide Portfolio System: Implements a multi-stage tracking mechanism with clear, incremental milestones.

Embedded Faculty Coordination: Establishes formalized feedback loops between faculty advisors and students at critical checkpoints.

Curated Showcase Exemplars: Provides a repository of high-standard portfolio examples aligned with industry expectations.

Expected Deliverables & Significance

Key Outputs: An IBSTPI-aligned e-portfolio assessment model, validated competency-based evaluation criteria (rubrics), and practical development guidelines.

Significance: The findings contribute to improving program-level assessment and strengthening the alignment between graduate education and industry expectations.

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