

An Analysis of Learner Experiences with Digital Scaffolding in Online Micro Project-Based Learning

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Abstract

Online career courses should not merely transmit information but help learners translate reflection into concrete career action. However, asynchronous online learning places substantial self-regulatory demands on adult learners who have limited time and varying levels of readiness for self-directed learning. This study examined a digitally scaffolded instructional design that organized complex career-development tasks into short, bounded project cycles. Data were collected from 41 adult learners enrolled in a career-design course. The survey consisted of five-point Likert-scale items and open-ended questions. Quantitative data were analyzed using descriptive statistics, internal consistency reliability, Spearman's rank-order correlations, and Kruskal-Wallis tests, while open-ended responses were analyzed thematically. The results showed that learners generally perceived the digital scaffolding positively ($M = 3.72$, $SD = 0.73$), with perceived changes in career design and career-related action receiving the highest domain score ($M = 4.07$, $SD = 0.66$). Seventy-eight percent reported stronger intentions to initiate or continue career-preparation activities and an improved ability to develop concrete action plans. The overall digital scaffolding experience was positively associated with perceived changes in career design and career-related action ($\rho = .592$, $p < .001$). Thematic analysis indicated that visible learning sequences, integrated access to resources and assignments, progress monitoring, templates, and reflective prompts supported task initiation and the development of concrete career plans. However, some learners viewed mandatory sequencing, excessive on-screen information, and progress-tracking errors as sources of inconvenience. These findings suggest that digital scaffolding can facilitate career-related action while effective structures must also preserve learner choice and flexibility.

Keywords: Adult Learners; Behavioral Intention; Self-Regulation; Task Engagement; Vocational Development