



Cultivating Digital Literacy of Novice Translation Teachers through Multimodal Authentic Materials: An Empirical Study from an Applied University in Southwest China with Psychological Insights

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Abstract

Background: In the digital transformation of education, digital literacy is crucial for novice translation teachers, affecting both teaching effectiveness and their psychological readiness to adopt technology. Despite the standard "Digital Literacy of Teachers" (JY/T 0646-2022) released by Chinese Ministry of Education China (CMOE) which emphasizes technology-integrated teaching, psychological barriers, such as self-efficacy gaps and cognitive overload, hinder translation teachers' digital practice. This study explores how multimodal authentic materials (MAMs), including real-world videos and podcasts, can cultivate digital literacy across skills, application, and ethical awareness while alleviating technical anxiety and ethical concerns. By focusing on the underlying psychological mechanisms, this research aims to explore how MAMs foster digital literacy among 40 novice translation teachers (20 in a treatment group and 20 in a control group) at an applied university in southwest China, offering psychological insights into effective digital teaching practices.

Subjects and Methods: Adopting a quasi-experimental design, the study stratified participants by language specialization (English/French/Spanish/Russian, 5 teachers per language per group) and teaching experience (1-5 years). The treatment group underwent a 12-week intervention combining MAMs training (resource screening, adaptation, ethical use) with psychological scaffolding (self-efficacy-building workshops, stress management for cognitive load). Data collection mainly include: 1. Quantitative measures: Pre/post digital literacy surveys (CMOE standards) and psychological scales (self-efficacy, cognitive load, ethical anxiety); 2. Qualitative methods: Semi-structured interviews (exploring emotional experiences with MAMs), classroom observations (recording technical-psychological interactions), and teaching work analysis (lesson plans, student feedback logs).

Results: MAMs significantly improved treatment group teachers' digital literacy, particularly in technical application (e.g., video-based translation task design) and ethical awareness (copyright compliance). Psychological insights revealed: 1. Self-efficacy as a mediator: Teachers with high MAMs-related self-efficacy were 2.5 times more likely to innovate, driven by positive student feedback; 2. Cognitive load regulation: Structured MAMs training reduced perceived overload by 30%, decreasing resource adaptation stress; 3. Ethical anxiety as a barrier: Copyright and AI content uncertainty led 45% of teachers to underutilize MAMs.

Conclusions: MAMs foster digital literacy through a dual pathway: technical skill enhancement and psychological empowerment, with self-efficacy and stress management emerging as critical mediators. Key recommendations include: 1. Psychologically informed training: Integrate confidence-building activities (e.g., peer modeling, incremental task design) into MAMs workshops; 2. Institutional support: Develop user-friendly MAMs repositories with copyright clarity to reduce ethical anxiety; 3. Incentive systems: Recognize translation teachers' psychological adaptations (e.g., reflective practice in handling technical failures) alongside technical achievements. This study contributes to understanding how MAMs act as both pedagogical tools and psychological catalysts, urging future research to explore longitudinal effects on translation teachers' mental well-being and cross-disciplinary applications of behavioral theories in digital education.