



Use of Video-Based Simulations in Online Writing Professional Development

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Topic & Purpose

Well-designed professional development (PD) can build pedagogical content knowledge among teachers. Guided application is a critical component of PD for teachers of the deaf (TODs) focused on writing instruction. While online platforms make PD accessible, there is a need for methods of assessing the PD success beyond the collection of teachers' self-reports and surveys of learned content. The purpose of this study was to investigate the development of TODs' content knowledge about writing instruction using video-based instructional simulations while participating in online PD.

This study was part of a SIWI PD that was implemented with nineteen TODs, sixteen in classrooms and three itinerant. At the beginning, middle, and end of their participation, teachers were given two video-based simulations and asked to narrate: (a) how they would complete the lesson where it left off and (b) their plan for tomorrow's lesson. They described their hypothetical instructional decisions and the rationale for those decisions. Teachers' responses were de-identified and scored holistically on a 5-point Likert scale by three researchers from 1=poor to 5=superb. A repeated-measures ANOVA was used to analyze the data.

Study Outline

Findings

The teachers' scores on the video-based classroom scenarios aligned with their self-evaluations of likeness to implement SIWI-aligned practices and preparedness. Before beginning the SIWI PD, teachers scored an average of 1.74 on video one, which was characterized as "poor"/"fair." The teachers' average scores increased at the midpoint (2.95) and then after the PD concluded (3.52, "good"/"better"). For video two, teachers scored an average of 1.79 before starting the PD, similar to video one. The midpoint (3.36) and final score (3.31) for video two were comparable. A repeated-measures analysis demonstrated teachers scored statistically significantly higher by the end of the PD.

Across both video-based scenarios, teachers showed gains in their knowledge and application of evidence-based writing instruction. The teachers' self-reports further aligned with their simulation results. This study's results suggest that those providing online PD may assess participants' readiness for implementation and preparedness to apply content knowledge through video-based simulations.

Ideas to Consider

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Saulsburry, R. (2026). Use of video-based simulations in online writing professional development. *Research Brief of Dostal et al. (2026) in Education Sciences*. <https://siwi.utk.edu/wp-content/uploads/VideoSimulations.pdf>