Video in Instruction and Assessment

THE NATURE OF KNOWLEDGE

DESCRIPTION

Digital videos can be used for both instruction and at various points in the assessment process. The following areas are well-supported by educational research:

- Video in instruction (e.g. Clark & Mayer, 2011; Mayer, 2009)
- Video peer review (e.g. Falchikov & Goldfinch, 2000; Kavas & Ozdener, 2012; Wu & Kao, 2008)
- Video for reflection and self-assessment (e.g. Hartsell, 2013; Hirschel, Yamamoto, & Lee, 2012; Koole et al., 2012)
- Student video creation (e.g. Kearney & Schuck, 2008; Guo, Kim, & Rubin, 2014)
- Video for feedback and assessment (e.g. Tochon, 2001; Turner & West, 2013)
- Vicarious learning via video for changing affective states and attitudes (e.g. Martin & Briggs, 1986; Wetzel, Radtke, & Stern, 1994; Zimbardo & Leippe, 1991)

Yet, simply including videos in these situations does not positively impact learning unless the activities and/or content are explicitly aligned to well-articulated learning objectives (Clark & Mayer, 2011). Furthermore, there is little to no research support for instructional videos whose sole purpose is to interest or motivate learners. However, videos that both align with learning objectives AND provide interesting content CAN both motivate and impact learning.

LEARNER IMPACTS

- Attitudes
- Behavior
- Motivation

CAPABILITIES

- Assessment: Project
- Cognitive Tools: Synchronous social learning: audio/video based
- Cognitive Tools: Timestamped video comments

SAMPLE DESIGN IMPLEMENTATIONS

- Robust Technology: Video peer review system; collaborative online video editing
- Simple Technology: Standalone instructional videos with assessment items
- Content Support: Instructional videos aligned with learning objectives

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SELF-ASSESSMENT INSTRUMENT

Principle Criteria	Integration (4-5 points)	Exploration (2-3 points)	Consideration (1 point)	Not Applicable (0 Points)	Total Points
Definition	Videos integrate multimodal elements, such as images, sound, narration, and animation Videos are used to support assessment, feedback, demonstration, reflection, and/or interaction	Videos fail to integrate several multimodal elements Videos are underutilized to support multiple potential benefits	Videos only utilize a single multimedia element Videos only support a single potential benefit	Does NOT leverage multiple benefits of video usage	= _____
Model	Videos are used to support authentic learning through a participation model in a real-world context	Videos are used to support authentic learning through the simulation model with realistic activities	Videos are poorly or unclearly used to support authentic learning	Does NOT leverage the benefits of authentic learning through video	= _____
Design	Strong use of technology to enhance students' ability to communicate around video Videos are made with a brief timeframe in mind, such as 5-10 minutes Strong alignment between authentic environment and video-based activities	Some use of technology to enhance students' ability to communicate around video Videos are chunked into shorter sessions of 30-60 minutes Some alignment between authentic environment and video-based activities	Poor use of technology to enhance students' ability to communicate around video Videos are longer than is ideal and should be broken down further Poor alignment between authentic environment and video-based activities	Does NOT use design effectively	= _____
Assessment	Strong use of criteria and/or standardized instruments to support peer review Strong alignment between learning objectives and assessment techniques Strong use of constructive feedback to guide and support effective learning strategies	Some use of criteria and/or standardized instruments to support peer review Some alignment between learning objectives and assessment techniques Some use of constructive feedback to guide and support effective learning strategies	Poor use of technology to enhance students ability to communicate around video Videos are longer than is ideal and should be broken down further Poor alignment between authentic environment and video-based activities	Does NOT assess effectively or not an assessment-based activity	= _____