

Chapter 2

Digital Video Presentation and Student Performance: A Task Technology Fit Perspective

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ABSTRACT

This paper reports the results of a confirmatory study of a Task Technology Fit (TTF) model. Three dimensions of fit: Task Match, Ease of Use, and Ease of Learning, are applied in the context of digital video tools use for oral presentation in a classroom environment. Students completed a digital video presentation that acted as a substitute for an in-class oral presentation. An existing survey instrument was adapted, and administered to the students to examine the impact on presentation skill and fit to task. Results confirm the adaptation of the TTF model and show significant relationships between variables. The model can be used in other task/technology combinations. Additional findings suggest that when there is a significant fit between digital video tools (technology) and improvement of oral presentation skills (task), student performance also improves. Digital video can be a useful alternative to in-class presentation when the goal is to improve presentation skill.

INTRODUCTION

In their 2006 study, Park and Raven proposed an adaptation of the traditional task-technology fit (TTF) model (Goodhue, 1995; Goodhue & Thompson, 1995). Park and Raven noted that the TTF model, despite its promise, was not used

much in IS research. Other models, such as the Technology Acceptance Model (Davis, Bagozzi, & Warshaw, 1992) are much more extensively used. They identified several reasons why that might be the case. The original model had 12 dimensions of fit, but many of these dimensions seemed to not to be reflective of the fit concept.

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They redesigned the model, with 3 dimensions of fit that were derived from the work by Eason (1988): (1) Task Match (TM), Ease of Use (EOU), and Ease of Learning (EOL). They updated the model by including well-tested measures for performance (measured as usefulness). Park and Raven tested the revised model in the context of knowledge management systems, and confirmed that their revisions worked well in that context. In their discussion of possible future research they noted the need for replication of the study in other contexts.

This study seeks to provide such a replication of the Park & Raven model, in a different context, with a different type of technology. Fit is examined between the task of creating a digital video presentation and the technological use of digital video tools. The use of a digital video (DV) presentation in a course management system (CMS) is examined for its impact on student presentation skill and fit to task. The level of fit is then compared to performance by students.

Task, Technology, Fit and Performance

Information systems success has been examined through a series of studies, and several theories have been developed (Park & Raven, 2006). The theory that is of particular relevance here is task technology fit theory (Goodhue, 1995; Goodhue

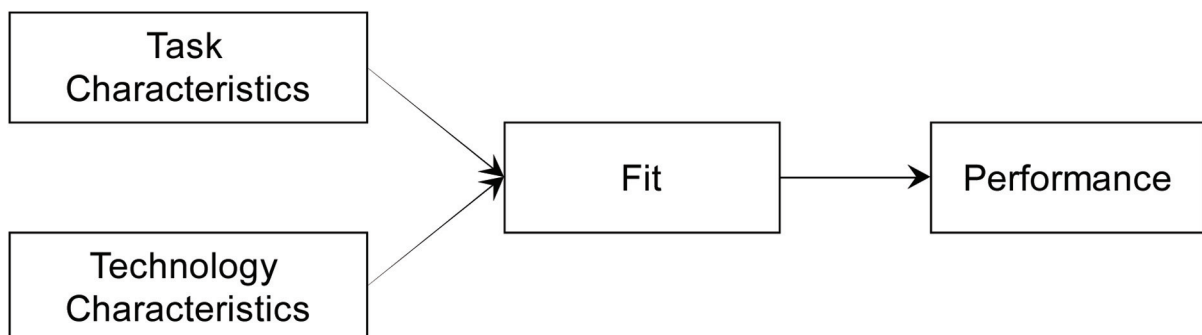
& Thompson, 1995). One of the key concerns in Information Systems (IS) research is to more thoroughly understand the relationship between information systems and user performance. TTF theory indicates that when technology and task fit together well, performance will be higher (see Figure 1). (Goodhue, 1995; Goodhue & Thompson, 1995; Zigurs & Buckland, 1998)

Goodhue and Thompson (1995) measured task-technology fit with 8 factors: quality, locatability, authorization, compatibility, ease of use/training, production timeliness, systems reliability, and relationship with users. A survey containing between two and ten questions for each factor was used with responses on a seven point Likert scale, ranging from strongly disagree to strongly agree. Park and Raven (2006), in their research, re-conceptualized fit. They identified three aspects of fit: Task Match, Ease of Use, and Ease of Learning as shown in Figure 2. These dimensions were subsequently applied to digital video technology and student presentation task.

Digital Video Technology and Student Presentation Task

Oral presentation ability is one of the seven most important oral communication skills required by entry-level workers (Maes, Weldy, & Icenogle, 1997). Oral presentation is required by most undergraduate business courses for workplace and career

Figure 1. The task-technology fit model adapted from Goodhue & Thompson (1995).



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