

The Effect of Seductive Details on Learning from Multimedia Presentations

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ABSTRACT

Students watched a PowerPoint presentation with voice-over lecture covering the Big Five trait theory of personality. Students in the two experimental conditions watched the PowerPoint with video clips (seductive information), each exemplifying a trait. The clips were presented either before or after the corresponding material. Students who watched the clips scored higher on a quiz than those students who did not. These results suggest that adding seductive details can enhance learning, even when they are presented prior to the target content.

INTRODUCTION

Multimedia lectures are becoming increasingly popular in classrooms. Instructors often “spice up” their lectures by including interesting pictures, audio clips, and video clips. In order to capture learners’ attention, educators may want to present seductive details before target material. Researchers have found, however, that these seductive details may increase student attention but hinder the students’ learning of the important (i.e., target) material, resulting in the seductive details effect.

The purpose of the current study was to determine if we could present seductive information prior to content material and enhance, as opposed to hinder learning. Thus, we applied seductive material that was clearly related to target material and attempted to minimize the cognitive resources required to process the seductive material by employing video clips from popular movies and television shows. Because these clips were taken from popular media, students were likely to be

familiar with the content, which could reduce the cognitive resources required to process this information. Both the target and seductive material were presented using multimedia to tap visual and auditory channels, which also should have reduced the probability of cognitive overload interfering with learning.

METHOD & MATERIALS

Participants were 1027 undergraduates. A PowerPoint presentation was prepared which provided factual information about the characteristics of each trait in the Big Five trait theory of personality. In addition to the visual information on the screen, voice-over recording of a lecture on the material was presented with each slide. The seductive details were in the form of video clips of popular television shows and movies. These seductive video clips were intended to exemplify the personality traits.

Depending on condition, the PowerPoint presentation either: 1) contained the video clips after the personality trait description (SVC-After); 2) contained the video clips before the corresponding personality trait was described (SVC-Before); or 3) did not contain the video clips at all (No-SVC). In the fourth (Control) condition, the students did not view the PowerPoint lecture at all and simply took the quiz. Learning was assessed using a quiz.

EXPERIMENTAL CONDITIONS

SVC-AFTER

Intro to Openness
Description of High Open.
SVC of High Open.
Description of Low Open.
SVC of Low Open.
Intro to Conscientiousness...

SVC-BEFORE

Intro to Openness
SVC of High Open.
Description of High Open.
SVC of Low Open.
Description of Low Open.
Intro to Conscientiousness...

NO-SVC

Intro to Openness
Description of High Open.
Description of Low Open.
Intro to Conscientiousness...

CONTROL

Students did not view any presentation but simply took the quiz for purposes of confirming item integrity.

RESULTS

Mean Quiz Scores of Experimental Conditions

Condition	n	Type of Quiz Item	M	SD
SVC-After	267	Applied	10.68	3.43
		Factual	13.11	4.15
SVC-Before	219	Applied	10.85	3.59
		Factual	13.50	4.14
No-SVC	268	Applied	9.34	3.82
		Factual	11.53	4.75
Control	268	Applied	8.18	2.77
		Factual	10.43	3.92

DISCUSSION

The primary purpose of this study was to determine if we could enhance learning by supplementing a multimedia lesson with seductive material. Results from this study did not reveal significant differences across the two groups that viewed the seductive video clips (before or after the corresponding personality trait description). However, groups that viewed the video clips outperformed the groups that did not view the clips. Therefore, the seductive details effect was not supported by the findings of this study.

Additional research is needed to identify the variable(s) that account for our findings. An example is whether or not student familiarity with the seductive details influences their impact on learning of the target material. Future researchers should also determine if utilizing both channels of information processing (i.e., visual and auditory) enhanced learning by reducing the probability of either channel being overloaded.