

Washington State University

College of Education

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Will defend the dissertation

Date: November 16, 2018

Time: 10:00 A.M.

Location: Pullman – Cleveland Hall 160A

Faculty, students and the general public are encouraged to attend.

SEDUCTIVE DETAILS: A META-REGRESSION AND EMPIRICAL STUDY

Chair: Olusola Adesope

Seductive details are interesting information that is irrelevant to the learning objective, often included to trigger learners' interests. Since its introduction in 1989, there is evidence to support that seductive details have deleterious effects on learning. However, little is known about how the detrimental effect of seductive details varies with instructional design or methodological characteristics. Such limited understanding of the seductive details effect has precluded researchers from making practical recommendations on the different conditions under which seductive details are facilitating or inhibiting to learning. In two interrelated studies, we addressed this gap using a meta-analysis (Study 1) and an experimental study (Study 2). The meta-analysis summarizes the effect of learning with materials that exclude or include seductive details, as well as review evidence supporting hypotheses of the underlying mechanism for how seductive details harm learning. In addition, the meta-analysis examined design, methodological, and contextual factors that moderate the effects of learning with seductive details. Results showed that including seductive details is detrimental for learning and that the effect is moderated by the nature of the intervention, the number of mediums, and format of seductive detail, as well as a number of sources used to develop learning material, and the format of recall and transfer questions. Study 2 addresses methodological, theoretical, and practical limitations identified in Study 1. Specifically, study 2 examined the role of prior knowledge when seductive details were included in differing frequency. In Study 2, one hundred and sixty-nine participants were randomly assigned to one of four groups with increasing levels of seductive details (0%, 25%, 50%, and 100%) in a between-subjects design. Findings show that prior knowledge was a significant predictor of learning, irrespective of percentage of seductive details included in the material. Theoretical, methodological, and practical implications of findings are then discussed in each study. Finally, two public dissemination pieces (infographic and blog post) summarizing results of this dissertation are presented in this dissertation.