

Promoting Visible Thinking About the Design of Meaningful Digital Learning Materials (Poster)

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Abstract

Our culture has become increasingly visual as the origination and dissemination of images is flourishing and multiplying in the hands of “regular” people (Mitchell, 1994). However, within many schools of higher education, the issues of visual semiotics and the nuances of how design impacts the instructional message (Mayer & Alexander, 2011) are not part of the curriculum. This study explored how the integration of meta-cognition routines from the Visible Thinking Project (Ritchhart & Perkins, 2008) would influence students’ choice of design elements in their creation of digital instructional materials.

The research focused on 18 college freshman at the Efrata College of Education who participated in a yearlong online introductory computer course. The goals of the research were to discern, both, how the thinking routines affected students’ understanding of the meaning of visual elements or visual semiotics (Kress, 2010), and to see how this knowledge might impact the meaningful design of digital artifacts.

Student production included the creation of an infographic, a chart on website evaluation, a PowerPoint presentation, and it culminated with the production of an instructional video. After fulfilling each assignment students wrote reflections, based on visible thinking routines, which described their experience and design choices. They were encouraged, through online instructor feedback, to edit their productions and to submit them a second time. In addition, mid-way through the course, students evaluated a peer’s digital project based on a rubric.

These peer evaluations and reflections were deconstructed, categorized and analyzed. In addition the digital products, which the students created throughout the course, were assessed as a portfolio. The progression of their design proficiency was evaluated with a rubric. Taken together, the reflections, peer evaluations and portfolio constituted a rich body of material which documented their experience in a triangulated fashion.

The findings of the study indicate that the thinking routines positively affected the students’ view of the importance of the visual element in communicating information. They learned to ask questions of meaning and to associate elements such as color, font and animations to the content of the instructional message. The conclusion of the research is that visible thinking routines are an effective tool in raising student awareness of visual semiotics.

Keywords: visible thinking, visual semiotics, instructional design.

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