Chapter 14

Multimedia Active Reading: A Framework for Understanding Learning With Tablet Textbooks

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ABSTRACT

In the age of online textbooks and digital reading devices, the nature of active reading has changed. During active reading, learners build and analyze the materials they read by applying specific strategies, such as annotating, summarizing, and developing study guides or other artifacts in an effort to comprehend, memorize, and synthesize information. However, research suggests that as textbooks migrate to the digital space, contemporary active reading may be more accurately conceptualized as, at least in part, dependent upon the medium or the platform on which it occurs. This chapter proposes a novel perspective for understanding active reading called Multimedia Active Reading, which is empirically grounded in prior research that uncovered ways in which learner behaviors in the tablet textbook environment map to common physical active reading strategies (i.e., annotation, reorganization, browsing, and cross-referencing) and introduced and evaluated novel active reading support designed for the tablet textbook environment.

INTRODUCTION

In the age of online textbooks and digital reading devices, the nature of active reading has changed. During active reading, learners build and analyze the materials they read by applying specific strategies, such as annotating, summarizing, and developing study guides or other artifacts in an effort to comprehend, memorize, and synthesize information. Active reading is, in fact, fundamental to meaningful learning. It serves a meta-cognitive function that allows content to leave strong memory traces and helps learners understand a text for a specific purpose, such as future recall in an educational setting or as part of a work task. However, research suggests that as textbooks migrate to the digital space, contemporary active reading may be more accurately conceptualized as, at least in part, dependent upon the medium or the platform on which it occurs.

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In other words, the active reading process and the device being used (i.e., desktop computer, tablet device, etc.) are inextricably linked. This represents a fundamental departure from earlier notions of active reading, because earlier characterizations were primarily focused on printed documents and books. For example, in traditional print environments, learners generally engage in the physical strategies of active reading (i.e., annotating, reorganizing, cross-referencing, and browsing) with pen and paper in the book or on a separate document. However, computers, tablets, and mobile devices include built-in active reading tools and therefore invite new active reading strategies as a result of these affordances. Thus, as we consider how to characterize active reading in the digital age, it may also be helpful to explore novel perspectives on active reading in relation to specific affordances of individual devices. Of course, characterizations of active reading for tablets or other digital devices aren’t wholly different than those that were envisioned for the paper experience. However, digital affordances – i.e., the integration of multimedia content, touch screen interactivity, and nonlinear presentations, to name a few – clearly have the power to alter the active reading experience in significant ways.

In that spirit, this chapter proposes a novel perspective for understanding active reading called Multimedia Active Reading. This framework includes characteristics that focus on the emergent nature of active reading with interactive, multimedia tablet textbooks. This framework is founded on two key principles. First, it acknowledges the ways in which prior characterizations of active reading inform and contribute to our understanding of active reading on contemporary digital platforms. Second, Multimedia Active Reading is empirically grounded in prior research (blind cite), which uncovered ways in which learner behaviors in the tablet textbook environment map to common physical active reading strategies (i.e., annotation, reorganization, browsing, and cross-referencing) and introduced and evaluated novel active reading support designed for the tablet textbook environment (blind cite).

BACKGROUND

During the past four decades, a vast body of literature has emerged that seeks to characterize active reading specifically based on the cognitive and physical processes learners enact to better understand educational content. Active reading originated with, “How to Read a Book: The Classic Guide to Intelligent Reading” (M.J. Adler & Van Doren, 1972 & 2011). The authors define active reading as a set of activities that should guide educational reading. Since then, many studies have indicated that students employ a wide range of active reading strategies, particularly when their reading goals include studying for exams or to retain information for a long time. Of course, specific strategies may differ from student to student, and individual students may be more or less successful in their active reading pursuits. However, scholars agree that good active reading skills are critical for students to become successful learners (Scheid, 1993; Zile-Tamsen & Marie, 1996).

Early definitions of active reading focused on reading text in print. However, the strategies and behaviors that comprise active reading as a conceptual approach to learning are applicable to the consumption of other types of media as well. The rising popularity of tablet use among students (e.g., iPads and similar Android devices) is moving textbooks to the mobile arena. For example, large publishing companies like McGraw-Hill and Pearson, tech companies like Apple’s iTunesU, and startups like Inkling Habitat have all entered the interactive, multimedia tablet game. Thus, active reading, watching, and listening, as well as engaging with interactive content are interwoven with active reading, particularly as learners attempt to annotate and study content delivered in multiple media formats. But what, if any, novel traits