Chapter 12
Gaming to Increase Reading Skills: A Case Study

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ABSTRACT

When considering instructional supports for struggling adolescent readers, Fisher and Ivey (2006) suggested that the interventions be comprehensive, include a variety of authentic reading and writing opportunities, and be based on varied assessment data. The researchers developed a schedule for Maya, an 8th grade student to work on vocabulary and reading comprehension via games that reviewed discreet skills as well as social media per Maya's preferences. The use of technology interventions for Maya allowed her to read, listen to, and think about meaningful texts, while maintaining balance with instruction in skills related to reading for a variety of purposes.

MAYA: STUDY INTRODUCTION

This chapter reviews a case study on 'Maya,' an 8th grade student attending a Midwestern middle school. She has a history of deficits in reading and vocabulary comprehension since elementary school. This case study had exploratory purpose (Yin, 1994) with the function to explore this question: Would encouraging a young girl to use games on mobile devices as an intervention strategy improve her language arts skills? Maya is a talented young artist who would like to be an art teacher. She prefers to use mobile devices for social purposes. Because of Maya's learner profile, it was proposed that selected games and mobile connections might engage Maya, thereby increasing her learning opportunities. Self-evaluation was used to develop habits that would authentically translate to future academic behavior necessary for the transition to high school.

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Maya was enrolled in an intensive 1:1 reading program previous to this research, in the summer between 3rd and 4th grade. At that time, she caught up with her peers on reading-related tasks including word recognition and reading comprehension. However, since that time, Maya has again fallen behind her peers in both vocabulary and reading comprehension. Recently, Maya's math teacher also expressed concern that an achievement gap existed between Maya and her peers in math application skills; this would potentially result in Maya's registration in remedial classes at the high school level. Maya expressed concern to her parents and the researchers about her current academic levels, questioning her readiness for high school. She has a goal of attending college to become an art teacher and does not want to enter high school behind her peers.

As a result of participation in a language arts workshop presented by the researchers, Maya and her parents contacted the researchers for further assistance with her learning. The agreement was made that tools and strategies introduced in the workshop would be practiced with Maya, and that the information gained could explore the effectiveness of the Language Arts interventions on mobile devices. The Institutional Review Board (IRB) approved the study, which lasted approximately four months. In order to support Maya, the researchers applied behavioral and academic interventions, which included tutoring with game-based and social media-based reading and vocabulary activities and positive reinforcement. These decisions reflected Maya's strengths and preferences as a learner. These strategies were part of the initial workshop, and mobile learning was selected because Maya also has demonstrated a strong interest in handheld devices, common in her age group. Individualized learning pathways should be based on actual student needs, therefore explicit language arts instruction was delivered through Maya's interest in and preference for mobile devices (Melhuish & Falloon, 2010).

Maya frequently expressed frustration with learning, saying she felt dumb. Although Maya's mother recently became a citizen of the United States, her mother was born in the Dominican Republic. Therefore, Spanish is her mother's first language. Maya has dark skin and hair; she appears to have a multiracial heritage. In addition to her academic frustrations, her ethnic background may impact her learning challenges, self-image, and level of school motivation. Initially, she was not capable of successfully completing tasks that involved reading comprehension, learning new vocabulary, and written expression.

Students who struggle academically frequently avoid the work that is challenging. Such assignments reinforce negative self-concepts and after struggling for years they can withdraw or shut down when presented with difficult academic tasks (Lavoie, 2002). Teachers and parents typically view this behavior as the student being either lazy or defiant. Maya routinely avoided schoolwork that involved her specific areas of challenge: reading comprehension and written expression. Consequently, her parents reported that homework completion was a nightly battle, which Maya frequently won, an obvious manifestation of escape behavior. Another issue was Maya's use of technology for socializing rather than schoolwork, specifically with handheld devices such as her cell phone and tablet. When she was required to use technology for school, she would often lose focus and subsequently use the tablet or cell phone for more desired tasks such as Facebook, Twitter, Snapchat, or Instagram. Her parents were frustrated because they felt that if Maya better applied herself to her schoolwork her grades would improve. Parents and teachers often lament that if students would only try harder they would perform better in school. However, for students that are struggling readers the converse is often true; if they experienced academic success then they would try harder (Lavoie, 2002). Maya did not know how games and social media could be used to support her learning; the researchers decided to leverage Maya's interest in social media and technology to enhance her reading and vocabulary comprehension rather than as a means to disrupt or escape learning.