Chapter 14

Teaching Literacy through Technology in the Middle School:
A Case Study

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ABSTRACT

This chapter explores the development of 21st century literacies at the middle school level. A case study, situated in an international middle school that integrates literacy and digital technologies, contextualizes this discussion. Participants included a cross-section of teachers and students. A key theme related to teachers was the merging of traditional and modern literacies: for students, literacy as language arts. Advantages to the fusion of literacy and digital technologies were (1) students' increasing their global awareness, (2) creativity in demonstration of learning, and (3) the abundance of resources. Distractibility, technology glitches, and the notion of breadth versus depth with regard to learning were challenges in this highly advanced technological institution.

INTRODUCTION

Twenty-first century literacies seem to permeate every imaginable academic venue. Literacy has moved at warp speed far beyond the traditional pen and paper into the ever-changing digital world. Thus, it impacts not only the academic landscape, but also the way people communicate with each other. Digital literacy has already begun to impact social constructs, through SMS, Tweets, Facebook, Tumblr, and Instagram. Individuals currently communicate in very short, fragmented,

and misspelled acronyms similar to the shorthand method of decades ago. It is unclear what the ramifications are as these newer and traditional communications continue to merge and increasingly emerge in academic settings.

This chapter examines these issues by presenting a case study situated in the International Hong Kong Middle School. After providing a background discussing 21st century literacies, we describe the study's methodology. An exploration of findings related to literacy instruction and technology follows. We examine the research themes, advantages and challenges to using digital technologies in a middle school, and make recommendations.

BACKGROUND

Defining 21st Century Literacies

Although various definitions of those literacies exist, the International Reading Association identified four common components in the body of research that is seeking to define new literacies as educators seek to fully understand how to best teach and support students in today's world. Based on the work of Coiro et al. (2008), these common components include: literacies that are related to information and communication technologies (the Internet, email, social media, blogs, podcasts, etc.); literacies that focus on global understanding, literacies that are constantly changing; and lastly those literacies that are complex, requiring multiple viewpoints. Furthermore, according to the National Council of Teachers of English (2013), 21st century literacy requires one to be multiliterate, possessing a variety of skills and proficiency with those skills. These include: collaborative problem solving, technology proficiency, communication of information, the ability to analyze

online text, the practice of ethical behaviors/responsibility, and the ability to "manage, analyze, and synthesize multiple streams of simultaneous information" (ibid, para. 4).

Students need to continue developing into adept online gatherers of information. They need to be able to collect, read, and sort information online, simultaneously. Additionally, as they sort information, they are required to critically evaluate and synthesize this information in order to then communicate their knowledge to others (Leu et. al, 2008).

Literacy Across Curriculum

Literacies are synonymous with understanding within and across multiple content areas. For example, new literacies that have emerged in the research include geographic literacy (Guertin & Neville, 2011), art literacy (Ohler, 2000), information literacy (Eisenborg, 2008) and transliteracy (Alvermann, 2008), which reaches across and between every different type of literacy learning.

A key component in any of these new literacies (Coiro et al. 2008) is the ability to read, learn, and communicate information in a variety of different disciplines. For example, social studies teachers want their students to be geographically literate so they can be able to access information on a map. English and art teachers use visual literacy and art literacy to teach students to interpret visual aspects such as symbolism or inferences that a reader would need to deduce from the combination of images, dialogue, and text.

Information literacy spans across all content areas (Eisenborg, 2008) and affects all disciplines as most content can now be delivered electronically. The same can be said for transliteracy (Alvermann, 2008) as researchers are in the process of creating best practice recommendations for digital literacy in the same manner that we currently have for

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