## Chapter 113

# A Triangulation Approach to Understand Multi-Cultural College Students' Technology Literacy in a Composition Classroom: Implications for Global Literacy Theory and Practices

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### **ABSTRACT**

Despite intense debates over the use of computer and networked technologies in composition classrooms, research has been limited by one dimensional support or criticism of integrating technologies
into classrooms. The inability to consider students as a central role in the literacy acquisition process
has led to many problems in the rhetoric of technology as well as in the implementation of computer
and networked technologies in a composition classroom. This study employed a triangulation method
to gather empirical data to better assess and critique the rhetoric of technology in composition pedagogy literature. The author collected both quantitative and qualitative data to uncover issues critical
to students' technology literacy in a technologized composition classroom. A questionnaire survey was
distributed to 62 bi-cultural undergraduate students conveniently recruited from a large southwestern
university near the U.S.-Mexico border. Findings from the quantitative method discovered that English
instructors' technology literacy had significant impacts on students' own technology literacy. Furthermore,
narratives from the qualitative method identify the following themes about technology: effectiveness,
practicality, instrumentality, and institutional enforcement. In conclusion, the author discusses the
importance of technology literacy in composition classrooms to demonstrate its implications on global
literacy theory and practices.

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### INTRODUCTION

Computer technologies were first introduced into a composition classroom in the 1960s to "automate the teaching of grammar, spelling, and punctuation, and the evaluation of students and compositions" (Gerrard, 2003, p.482). However, the widespread diffusion of computer and networked technologies in schools was believed to follow then U.S. President Bill Clinton's 1996 State of Union address in which he proclaimed that "every classroom in America must be connected to the information superhighway" (cited in Tyner, 1998, p.71). Consequently, the last two decades of the 20th century (from 1978 to 2000) have seen an accumulative emphasis on literacy, computer and networked technologies in the United States (Hawisher & Selfe, 2004). Hawisher and Selfe (2004) pointed out, "by the end of the century, many considered students no longer fully literate unless they could communicate within electronic environments" (p. 33). Consistent results reported in Hawisher and Selfe's work (2004) strongly supports that technology literacy has become an essential part of literacy studies.

The redefinition of literacy has prompted educational professionals and policy-makers to consider what composition pedagogy should encompass. Thanks to the advances in computer and networked technologies, composition instructors have been incorporating these innovations into composition classrooms (Clark, 2003; Faigley, 1999; Fandercial, 2003). Because computer and networked technologies have often been conceptualized from a social-democratic rhetoric tradition that emphasizes the preparation of students to participate in a democracy, many proponents have argued that these technologies can "help promote a liberatory pedagogy by fostering students' resistance, empowering students by de-centering the classroom" (Walker, 2001, p. 119).

The importance of critically assessing computer and networked technologies in an educational setting cannot be underestimated by literacy researchers and practitioners. Successful implementation of technologies in composition classrooms is often contingent on many factors. First, in terms of the government policy, the appropriation of funds to support technology implementation in schools was often based on altruistic arguments that access to these technologies is needed to accomplish social justice and fairness in American society (Tyner, 1998). Secondly, from an educational perspective, it has been argued that computer and networked technologies will help students to learn better and compete for the 21st century in a global economy. The belief on the effectiveness of computer and networked technologies has prompted the U.S. government to allocate financial resources to purchase these technologies. Kleiman (2000) reported that in 1999, schools spent about \$6.9 billion on computer servers, desktop computers, networking, and software to promote the use of new technologies. Nevertheless, the paucity of empirical evidence supporting pedagogical use of these technologies has failed to substantiate these arguments that technologies lead to better learning outcome among students to justify the allocated resources. Composition scholars who strongly support the integration of technologies into their composition classrooms often fail to identity indisputable relationships between technology use and improved student performance (Tyner, 198; Westreich, 2000).

The inability to consider students as a central role in the literacy acquisition process has led to many problems in the rhetoric of technology as well as in the implementation of computer and networked technologies in a composition classroom. The emphasis on students' role in the literacy acquisition process requires scholars to better understand what students think about these new technologies. However, the literacy acquisition process is affected by many factors. For example, Greenbaum (2001) voiced her pes-

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