

# Critical Study of Gender and Teacher–Designed Interactive Educational Websites

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## INTRODUCTION

*I, too, never thought I'd make a website. I always figured that they were too "codey" or "techie" to ever comprehend. To think that I could make a simple power-point and make it world wide within minutes amazes me. (Excerpt 1, Data Set UG)*

This article focuses on exploring teacher-created interactive educational websites to develop a critical and poststructural theoretical perspective for language teacher education (Kumaravadivelu, 2008; Pavlenko, 2002) corresponding to technology and gender (Solomon, 2000; Anderson & Damarin, 2001). Gender issues pertaining to technology in education are a concern for educators and teacher educators (Cammack & Phillips, 2002; Haynie, 2003; Voyles & Williams, 2004; Wajcman, 2000). A heightened sensitivity to the two specific educational contexts through poststructural theory was implemented because the majority of the research participants in both settings were female; this corresponds with recent educational statistics indicating that the United States K-12 teacher workforce has been and is becoming increasingly female (Cammack & Phillips, 2002; Feistritzer, 2005). "Eight out of 10 public school teachers (82 percent) are female. This is up from 74 percent in 1996, 71 percent in 1990 and 69 percent in 1986" (Feistritzer, 2005). We can learn from instructional technology scholars about the important link between poststructuralism and technology (Anderson & Damarin, 2001). "Poststructural feminism challenges masculinist views of knowledge by using strategies of opposition, resistance, and deconstruction" (Anderson & Damarin, 2001, p. 20). A central concern for the implementation of this pedagogical practice has been to facilitate the empowerment of *all* teacher candidates to use technology, male and female.

## BACKGROUND

With the abundant availability of Computer Assisted Language Learning (CALL) resources it is now possible to utilize multitudes of Internet resources to support language learning. CALL is defined as, "the search for and study of applications of the computer in language teaching and learning" (Levy, 1997, p. 1). Research shows mixed results with web-based learning activities due to mismatches between learning objectives and specific Internet content. Fortunately, teachers can access and utilize free 'template' websites, create websites easily and then present materials and activities on the web. Nevertheless, scholars examining relationships between gender and technology in teacher education report conflicting evidence in terms of computer use and numerous key factors such as perception of computer skills, confidence, and gender differences (Fleming, Motamedi, & May, 2007; Madden, 2003; Palma, 2004; Yuen & Ma, 2002). For example, gender differences can possibly be attributed to perceived competence and the type of use (Fleming et al., 2007, p. 209). The opening excerpt shows a reshaped student identity as she becomes empowered to use technology for her teaching practice. She displays agency in designing and implementing an interactive educational website a 'techie' can make. Utilization of teacher candidates' perspectives as data can be a beneficial step toward increased technology integration in teacher training programs advocated by Hubbard and Levy (2006). This study is motivated by a suggestion to improve language teacher training in CALL (Kessler, 2006).

*Poststructural theory:* Poststructural theory is traced to political deconstruction criticism, radical feminism, and historical analyses of discourse and power. Constructed subjectivity is socially produced and is neither innate nor genetically determined (Weedon,

1987). Poststructuralism views learner *identity* as a key underlying component that fluctuates in response to power relationships which transform the interaction between the individual learner and the social environment in which learning occurs (Cammack & Phillips, 2002; Norton Peirce, 1995). The connection between subjectivity and agency can be interpreted in this manner: the philosophical concept of *agency* means the human capacity to make choices, impose those choices on others, and act in the world (Cammack & Phillips, 2002; Taguchi, 2005; Weedon, 1987, 1999). Instead of accepting a marginalized subject position, a person might resist the subject position or even engage in a counter *discourse* which positions the person into a powerful position.

The poststructural framework also provides further insight into irregularities that teacher candidates implement during the educational process of becoming teachers (Cammack & Phillips, 2002) possibly shedding light on the practices of challenging educational meanings and practices through gender. This is relevant especially for future technology use in language teacher education which will likely include serving the digital native student population (Prensky, 2001). Unfortunately, poststructural tools for examining technology in teacher education and its irregularities have not been discussed as potentially useful means to conduct CALL research and certainly not pertaining to gender (Arnold & Ducate, 2011; Ducate & Arnold, 2006). Yet these tools allow for an improved understanding of how social meanings are challenged in order to develop a meaningful analysis (Anderson & Damarin, 2001; Cammack & Phillips, 2002; McLeod, 2009; Morgan, 2011; Solomon, 2000; St. Pierre, 2000). Some of this analysis includes documenting the teacher self-realization process in which teacher candidates' voices are being heard by teacher educators and theorizers (Egbert, Huff, Levi, Preuss, & Sellen, 2009). The research questions that were formulated for the purposes of this study are:

1. What prominent themes emerge during completion of the interactive education website assignment?
2. What do teacher candidate voices contribute to the ongoing interplay between gender, technology and teacher education?

The researcher began teaching technology in education courses in the summer of 2004 as an adjunct instructor. Earlier versions of the student-designed website assignment required students to make resume websites with a software application called Netscape Composer. A succession of modifications were implemented as to how the specific assignment could serve students more adequately such as using Microsoft PowerPoint to design and publish the resume websites and then eventually using template website construction services (Freewebs, Weebly, Zoomshare, etc.). This process continued until the concept was transferred to another university setting. In the summer semester of 2009, the author began teaching a course for graduate students in the Department of World Languages.

## Methodology

### Participants: Preservice Teachers from a College of Education

The participants from various sections of a technology in education course at a large public university ranged in age from 18 to 35 years old and included males and females who were primarily domestic students. Their level of technology proficiency was determined by completing a prerequisite course or a short series of basic technology skill workshops. The participants were recruited at the end of the courses in which they were enrolled, after their grades were turned in and received. It was also possible to only integrate partial data from the 2006, 2007, 2008 courses due to a specific percentage of potential participants declining to participate in the study. From the 198 total student reflections during this time period, 148 (115 females, 78%; 33 males, 22%) granted their assignment to be formally examined for research (75% participation rate; N = 148).

### Participants from a Department of World Languages

The participants from three sections (May/June of 2009, 2010, and 2011) of a "technology in foreign language education" course at a Midwestern university ranged

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