Developing preservice teachers' global understanding through computer-mediated communication technology

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A R T I C L E   I N F O

A B S T R A C T

This study examines preservice teachers' conceptual understanding of global education subsequent to participation in an asynchronous web-based multinational project to discuss issues related to cultural diversity and global challenges. Data included 59 preservice teachers' online messages and reflective essays. Six perspectives emerged from this inquiry: global education as cultural learning and understanding, fostering tolerance, addressing global issues, teaching global connections and collaborations, promoting peace, and critical understanding of global issues and events. The findings suggest that the online discussion provided a unique opportunity for participants to interact with teachers and students from different countries in an authentic context.

1. Introduction

Teacher educators today are faced with an urgent responsibility to transform curriculum and pedagogy to respond to the accelerating growth of global interdependence in economy, technology, politics, and culture. Scholars and organizations in education, such as American Association of Colleges for Teacher Education (AACTE), and the National Council for the Social Studies (NCSS) have long called for global education in both Kindergarten to high school classrooms and teacher education programs (AACTE, 1994; Anderson, 1991; Merryfield, 1997; NCSS, 2001; Parker, Ninomiya, & Cogan, 1999; Quezada & Cordeiro, 2007; Tucker & Cistone, 1991; Tye, 1999). The reasoning underlying such advocacy is that in an interconnected world our survival and well-being are directly related to our capacity to understand and deal responsibly and effectively with other peoples and nations and with a variety of issues that cut across national boundaries. The terrorist attacks of September 11, 2001 and their aftermath have again challenged educators to rethink what students should know and understand about the world (Dunn, 2002; Friedman, 2005; Kirkwood-Tucker, 2004; Merryfield & Wilson, 2005; Shapiro & Purpel, 2005; Stewart, 2007).

Despite the plethora of rhetoric about the need to help students understand the increasingly interdependent world and decades of theory and curriculum development, there is a paucity of scholarship examining the practice of teachers or teacher educators to teach from a global perspective in the reality of classrooms

(Gaudelli, 2003; Kirkwood-Tucker, 2004; Merryfield, 2003; Zong , Wilson, & Quashigah, 2008). In the latest edition of the *Handbook of research on teacher education: Enduring questions in changing contexts* (Cochran-Smith, Feiman-Nemser, McIntyre, & Demers, 2008), there is no mention of global education or globalization. In a search through the entire index, the word global is not mentioned nor is the word international. Similarly, the American Educational Research Association (AERA) Report on Research and Teacher Education (Cochran-Smith & Zeichner, 2005) made no mention of global education or globalization. It bears reiterating that global education has generally lacked a firm empirical foundation through much of its history.

Rapid developments in computer technology have allowed U.S. students unprecedented access to information about people, cultures, and events from around the world. Scholars argue that the dual features of Internet-based technology in providing access to up-to-date worldwide information and allowing instant communication across time and space have great potential in facilitating international and global understanding (Doolittle & Hicks, 2003; Merryfield, 2003; Zong, 2002). In this study, I examine whether participation in a computer-mediated communication (CMC) project to discuss a range of cultural and global issues with students and teachers from over 20 countries could make an impact on preservice teachers' global understanding and how they assign meaning and purpose to global education.

2. Framing the study

This study is framed around two sets of ideas: theory and research on global education and social constructive learning in the

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context of CMC supported environment. These theoretical perspectives help explain part of the framework utilized in shaping the investigation, interpreting data, and generating inferences to explain results.

2.1. Conceptualizing global education

This study first draws upon theory and research related to global education. Since early 1970s, scholars have advocated for global education to prepare students for the world that is becoming increasingly interconnected among its peoples and nations. Using such terms as global village, internationalization, and more recently and frequently, globalization, proponents argue that the impact of dynamic multinational transactions and cross-cultural interactions brought by international trade, foreign investment, tourism, immigration, cultural exchange is felt in virtually every local community and that teaching from a global perspective should become an essential aspect of school curriculum in order to better prepare students to make informed choices for the future.

Much published work on global education attempts to address this emerging curriculum field's scope, focus, and direction (Anderson, 1991; Case, 1993; Hanvey, 1976; Hicks & Holden, 2007; Merryfield, 2002; Noddings, 2005). Hanvey's (1976) integrated notion of a global perspective has been most influential in developing global teacher education programs in the United States (Merryfield, 1997). It consists of five interrelated dimensions: (a) perspective consciousness: an awareness of and appreciation for other images of the world; (b) state-of-the-planet awareness: an in-depth understanding of the prevailing global issues, events, and conditions; (c) cross-cultural awareness: a general understanding of the characteristic of world cultures with an emphasis on understanding differences and similarities; (d) knowledge of global dynamics: a familiarity with the nature of systems and an introduction to the complex international system in which state and nonstate actors are linked in patterns of interdependence and consciousness of global change; and (e) awareness of human choices: a review of strategies for action on issues in local, national, and international settings.

Hicks (2003) reviewed the development of global education theory and practice over the last 30 years in the United Kingdom, Canada, and United States and identified four core elements that all global education programs should address: (1) issues dimension—including issues such as inequality/equality, injustice/justice, conflict/peace, environmental damage/care, alienation/participation; (2) spatial dimension—referring to exploring local–global connections that exist in relation to these issues, including the nature of both interdependency and dependency; (3) temporal dimension—exploring the interconnections that exist between past, present and future in relation to such issues and in particular scenarios of preferred future; and (4) process dimension—a participatory and experiential pedagogy which explores differing value perspectives and lead to politically aware local–global citizenship (p. 271).

Adding to the conceptual discourse about the purpose and meaning of global education, there is a small, yet growing empirical research base on teachers' conceptualizations of the field as they plan and teach from a global perspective (Gaudelli, 2003; Holden & Hicks, 2007; Merryfield, 1998; Myers, 2006; Pike, 2000). For example, Pike (2000) examined how classroom teachers from Canada, United Kingdom, and the U.S. ascribed meaning to global education and found that teachers from all three countries agreed on the importance of concepts such as interdependence, connectedness, and shared the perception that global education goes beyond acquisition of knowledge about the world to include skills and attitudinal development. He also reported that whereas American teachers are more likely to characterize global education

as learning about a constellation of discrete countries and cultures, British and Canadian teachers tend to speak in terms of interconnections between people and global systems and to address global issues such as environmental programs, peace and conflict, and health in the developing world (Pike, 2000, p. 3).

Merryfield's (1998) study of teachers with a variety of professional background, including exemplary teachers, experienced teachers, and preservice teachers provides in-depth information on U.S. teachers' decision-making in regard to global education. Her study found that teachers in all groups agreed to "teach students about their own cultures and diverse cultures through multiple perspectives and comparisons of both similarities and differences so that students understand the complexity of culture and demonstrate tolerance and respect for differences" (p. 152). It also revealed that exemplary global teachers planned and implemented their lessons around the theme of global interconnectedness but also focused on global inequities in areas such as technology, health care, education, employment opportunities and income, civil and human rights, trade, distribution of capital, and other indicators of peoples' and nations' standard of living (p. 356). Merryfield further argued that studying teachers' conceptual understanding of global education informs both theory and practice.

Though above mentioned research has addressed perspectives on global education held by practicing teachers, few work has investigated the development of these perspectives, particularly, if and how teacher education programs help with the development of preservice teachers' perspectives on global education. Thus the question remains, how can teacher education program promote the idea of global education in ways that are meaningful to those who are about to enter the profession?

In a teacher educator's self-study, Kirkwood-Tucker (2004) examined the impact of using a United Nations (UN) simulation in a graduate course in global education on teacher education students' interpretations and integration of global issues. Her study indicated that simulation in the UN General Assembly deliberations were effective in developing teachers' open-mindedness toward those who are ethnically and culturally different, concerns for human rights, global stability, and peacebuilding competence.

Several studies have explored the impact of international field experiences on US teacher candidates' global learning. Drawing upon data sources such as candidates' reflective journal entries, program evaluations, anecdotal notes, feedback from host country educators, and results from questionnaires or surveys, studies in this area have highlighted the positive impact of international experiences on preservice teachers, such as a shift in consciousness and perspective, an empathetic understanding of the world and its people, an appreciation for other cultures and perspectives, and an awareness of both global and domestic diversity (Cushner & Brennan, 2007; Kambutu & Nganga, 2008; Pence & Macgillivray, 2008; Spalding, Savage, & Garcia, 2007).

The study reported in this article falls in line with this trend toward understanding the potential influence of teacher education programs and practices and responds to calls for more research studies on ways to improve teaching from a global perspective in teacher education. It examines the impact of integrating computer-mediated communication (CMC) technology into a social studies methods course on the development of preservice teachers' understanding of global education.

2.2. Social constructive learning and CMC in teacher education

This study also draws upon the theoretical principles of social constructivism, which view knowledge as primarily a cultural product, shaped by micro and macro-cultural influences and evolves through increasing participation within different communities of practice. In contrast to traditional acquisition-oriented