

DECOLONIZING INSTRUCTIONAL DESIGN THROUGH AUTO/ETHNOGRAPHY

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ABSTRACT

Instructional design is the systematic process of planning and developing learning environments. In contemporary educational contexts, this has come to include also the intentional integration of digital and Internet technologies. Instructional design practitioners are trained to employ formal theoretical process models to guide their practices, roughly analogous to the ways in which a quilt maker may utilize a pattern and systematic process to guide making a quilt. There are few developed models of instructional design to be found in the literature that adequately attend to cultural orientation and none have been developed from within non-dominant cultural Indigenous education contexts. Furthermore, the literature examining the instructional designer as a culturally oriented actor within the instructional design process is limited. Few instructional designers have been trained to operate outside of Western epistemologies. This study interrogated this shortfall in instructional design scholarship and suggests new strategies for practice that can be leveraged in the *decolonization* project – reclaiming education for Indigenous people according to Indigenous values.

The purpose of this study was to critically examine the practices of an instructional designer working within an Indigenous higher education context in order to identify culturally relevant approaches to instructional design. The study findings suggested that leveraging autoethnographic research strategies, together with a reflexive orientation to practice, may provide a mechanism through which an instructional designer can advance from technician to culturally competent professional, positioned to work effectively in partnership with educators who serve the Indigenous community. The study findings culminated in the Star Quilt Framework for Culturally Competent Instructional Design, a *person* model for practice, which acknowledges the role of the instructional designer as an actor in the design process. The study

findings have implications for professional development of instructional design practitioners serving Indigenous populations, and may offer strategies relevant for culturally competent practices in higher education, in general.

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CHAPTER 1: INTRODUCTION

Opening the Ceremony

Boozhoo, tawnshi, and greetings.

In academic writing, it is not common for the researcher to place her own voice so prominently in the forefront. In this case, however, I must begin with my own voice, because it honors the methodology underpinning this study – an Indigenous methodology. This qualitative study featured an Indigenous approach because it involved Indigenous peoples. An Indigenous research methodology can be initially understood by breaking down the components of the phrase: “Indigenous” as derived from the viewpoint of First Peoples or American Indians and “research methodology” as the whole framework that guides the beliefs about how, and the way in which, research is conducted. Cree scholar, Shawn Wilson (2008) further explained:

As we Indigenous scholars have begun to assert our power, we are no longer allowing others to speak in our stead. We are beginning to articulate our own research paradigms and to demand that research conducted in our communities follows our codes of conduct and honors our systems of knowledge and worldviews. (p. 8)

An Indigenous research methodology emphasizes attention to relationship and accountability to relationship among the researcher, the participants, and the idea upon which the research endeavor is focused. Wilson (2008) stated that “research by and for Indigenous peoples is a ceremony that brings relationships together” (p. 8). He further explained that through research, we “build relationships” that “bridge the distance between aspects of our cosmos and ourselves” (p. 11). An Indigenous research methodology proceeds from the understanding that “knowledge cannot be owned or discovered, but is merely a set of relationships which may be given visible form” (Wilson, 2008, p. 127). This study was the journey of one Indigenous

instructional designer to explore the relationship of the instructional designer to her work and to the educators and learners that took part in the journey with her. These relationships yielded new insights regarding the relationship of the instructional designer to the instructional design process and the context of the learning environment.

Situating the Researcher

In keeping with an Indigenous research methodology, I must begin by situating myself in relationship to this work, and by so doing, create a type of relationship with the reader. I am descended from Chippewa, or Ojibwe, of the Turtle Mountain Band. I have worked in higher education as an instructional designer for several years, assisting faculty and trainers to develop curriculum and training programs, including the integration of digital and Internet technologies into their teaching. My own preparation as an instructional designer was devoid of references to or studies about American Indians as participants in contemporary educational systems with regard to utilizing digital technologies for instruction. From the perspective of the field of instructional design, it might appear as though Indigenous Americans are gone, relegated to a past that included only nomadic living and rudimentary tools, rather than modern peoples seeking to harness modern technologies to solve complex community challenges and prepare future generations of tribal citizens. Personally, I am acquainted with many tribal leaders, scholars, and citizens who use information technologies (IT) every day. I know that the tribal colleges I have visited have IT personnel and technology infrastructure and use it to preserve and transmit cultural values and heritage, while empowering the next generation of Indigenous citizens. I undertook this scholarly journey, in part, to improve my own competence as an instructional designer, and also to share what I have learned with other educators and instructional designers, in hopes of adding to the growing body of rich wisdom that has been put

forward by other Indigenous scholars and leaders. Nevertheless, I do not posit that I am an expert with particular authority regarding Indigenous cultures. It is important that I put this forward, so that my personal investment in the work is clear. My heritage was the basis for my sincere interest in this work and my desire to approach this work with a good heart.

Background

When modern computer and Internet technologies were introduced, just a few decades ago, there were enthusiastic predictions about their positive and revolutionary effect on the quality of and access to education for all (Albirini, 2006; Joo, 1999). Of particular interest was the potentially democratizing and egalitarian nature of Internet technologies, which were initially viewed as culturally neutral (Ess, 2002; Grasmuck, Martin & Zhao, 2009). More recent research has revealed that technology is not neutral, but is embedded in and reflects the culture and worldviews of its designers (Feenberg, 2005).

Instructional design is described as the systematic process of planning and developing learning environments (Mager, 2008; Reiser, 2001a). In contemporary educational contexts, this has come to include also the intentional integration of digital and Internet technologies (Reiser, 2001a). Instructional design practitioners are trained to employ formal process models to guide their practice (Mager, 2008), roughly analogous to the ways in which a quilt maker may utilize a pattern and systematic process to guide the creation of a quilt. Presently, there are many dozens of models available from which instructional designers may choose; however, few models address cultural perspectives in significant or emancipatory ways (Kinuthia, 2009). Fewer still are models oriented to Indigenous pedagogy, and none are derived from within Indigenous educational contexts. Without effective models to guide the training and practice of instructional designers, and other allied technological professionals, even experienced practitioners may not

be equipped to provide appropriate support for culturally relevant educational opportunities (Kinuthia, 2009). The instructional designer is also a component of the design system, acting intentionally or unintentionally from a cultural frame (Williams-Green, Holmes, & Sherman, 1997, p. 4). Furthermore, Western paradigms of practice are based upon the frameworks of Western thought, which considers knowledge as separated from the individual. From the perspective of practice, the instructional systems design process is conducted according to an external scheme: a model is applied to the context, an outside-in approach. The paradigm is mechanistic and does not explicitly consider the role of the instructional designer as an operator within the system. Training and the development of cultural competence for instructional design practitioners then become additional factors in moving the field of instructional design towards more socially just practice. “Issues of race, gender, ethnicity, culture, and social class are all inextricably linked [to] instruction and both teacher education and instructional design programs should be in a position to prepare their learners to understand these contexts” (Kinuthia, 2009, p. 276). This study interrogated this shortfall in instructional design scholarship and suggests new strategies for practice that can be leveraged in the *decolonization* project – reclaiming education for Indigenous people according to Indigenous values.

The Star Quilt

I have employed the metaphor of the star quilt as a way to structure this study. Indigenous scholar, Margaret Kovach (2013), explained that metaphor is an important mechanism for making meaning. In my ancestral community, the star quilt is a symbol of honor. Star quilts are given as gifts to honor an accomplishment or recognize something about which the community is proud. The quilt is presented and draped about the shoulders of the recipient, so that the star is visible. I positioned myself here as one preparing a star quilt to be given to the

Indigenous community to honor them, as I have undertaken this study to honor Indigenous peoples. My personal goal was to become a better practitioner of instructional design and teach others the same. My hope for my people is that this work empowers other educators to be agents for decolonization.



Figure 1. A star quilt design as a metaphor. A star quilt design provides a literary metaphor for the narrative of this study and a framework for the study outcomes.

The star usually featured in the quilt design is an eight-pointed star, arranged so that each of two points is pointing toward one of the four ordinal directions, North, South, East, and West. In this study, I have employed the design of the star quilt both as a literary metaphor, and as a framework for the study outcomes, which are fully described in Chapter 5. As a literary organizational structure, the process of creating a star quilt provides a way of understanding the sequencing of the presentation of this study in written form. The circular structure of the star quilt also provided a useful way to illustrate the circular nature of the personal story that underpinned this research journey. The design of the star quilt emanates outward in concentric fashion from the center of the design. Similarly, the researcher is represented by the central

circle as the focal figure of this study. I began this study from the position of the self. The secondary concentric circle emanating out represents the interpretive lenses which shaped my view, moving from self to the context and relationships with others who participated in the study, as described in the conceptual framework. I came to this study with a core of understanding underpinned by Western training and scholarship, a series of study questions, and a desire to contribute my scholarship to the benefit of the Indigenous community. Finally, the points of the star design that emanate outward and inward represent the relational nature of interactions that impacted me and resulted in the study outcomes. I completed this journey with a new approach to my practice, new understandings to address the study questions, and a positive contribution to the field of instructional design from an Indigenous perspective.

In Chapter 1, I described the structure and creative process of the study overall, in similar fashion to the creative thought and consideration that must precede the design and creation of a new star quilt. In Chapter 2, I explored the established literature and theoretical context, which formed the knowledge base for this study, much in the same way that a quilt pattern guides the development of the quilt. In Chapter 3, I described the methodology and methods employed to gather data in this study, just as a quilter would choose the proper tools for measuring and preparing the fabrics for use in the quilt. In Chapter 4, I shared the collection of stories, through personal narrative, that comprised the research journey, which was similar to the creative action of the quilter as the fabrics are chosen and matched together to form the unique design. This part of the process was highly individual; just as every finished quilt is the unique result of specific blocks of fabric united by a patterned design, my stories are highly individual as I lived the experience and interpreted it through the personal lens that shaped my view. Finally, in Chapter 5, I brought together the study themes and interpreted meaning. Metaphorically, this was similar

to the way the quilter combines the individual quilt blocks together to form the completed quilt; the study outcomes emerged as a cohesive work that was greater than the sum of the individual components that made up the study.

Conceptual Framework

Maxwell (2005) described the conceptual framework of a study as those theories, beliefs and prior research findings that guide the study (p. 8). Ravitch and Riggan (2012) provide a practical description of the role of a conceptual framework “as a way of linking all of the elements of the research process: researcher disposition, interest, and positionality; literature; and theory and methods” (p. 6). The conceptual framework both explains the relationships among the elements fundamental to the study and the justification for the nature of the inquiry and the methods chosen for pursuing the study outcomes (Ravitch & Riggan, 2012). The conceptual framework guiding this study consisted of four major components: (a) personal professional experience, (b) the extant scholarly literature pertaining to instructional design models and potential limitations, (c) Indigenous pedagogy as an axiological foundation, and (d) emergent Indigenous autoethnographic research methodologies as the basis for inquiry and data collection.

Professional Experience

My own professional experience provided the initial impetus for undertaking this study. I have several years of practical experience as a formally trained instructional designer. This experience has both informed my practice serving educators and students in higher education, and revealed gaps in professional development and training, both personally and among colleagues. During the course of my professional career, I have worked as part of a design team, consisting of content experts and technical staff, to create curriculum and software for various higher education and adult learning programs. In instances working across cultures, informants

from the target culture were not included in the design team. Furthermore, feedback from the target audience was rarely received or utilized for revision of the finished product. The two implicit prevailing assumptions operating within the design process were: (a) all learners were similar in preferences and affinities, and (b) our design processes were neutral and egalitarian. Furthermore, my own training as an instructional designer within dominant culture institutions had not fully equipped me to operate in ways that were culturally competent with respect to the various audiences that were potentially to be served. As I developed professionally, I became more informed that the threads of one's cultural orientation run through every aspect of human belief, behavior, and perception. Subsequently, I was motivated to leverage this concern as an opportunity for scholarly inquiry, in the service of Indigenous education in particular.

Extant Instructional Design Literature

Literature from the field of instructional design informed this study. Instructional design, also called instructional systems design (ISD), is the systematic process of planning and structuring all aspects of the learning environment including analysis, design, development, implementation, and evaluation of content, instruction and learning outcomes, with the goal of optimizing learning (Mager, 2008; Reiser, 2001). Instructional designers combine pedagogical knowledge and technical expertise in systematic processes to guide practice (Reiser, 2001).

Current instructional design models in use in professional training schools were developed in the Western academy, which formed the core of the curriculum I studied during my own preparation as an instructional designer. Few formal instructional design models attend to culture as a significant factor in the learning environment in substantial ways and none were developed from within Indigenous cultural contexts (Williams-Green, et al., 1997; McLoughlin, 2000). Few instructional designers have been trained to operate outside of Western

epistemologies (Kinuthia, 2009). More recently, instructional design scholars have begun to criticize deficits in classical approaches to instructional design with regard to cultural concerns (Edmundson, 2007a,b; Henderson, 1996, 2007; Kinuthia, 2009; Williams-Green, et al., 1997; Young, 2008). Indigenous people have the opportunity to decolonize the field of instructional design by establishing a theoretical basis for practice fabricated from Indigenous epistemologies, which can inform practice and be used to train culturally competent instructional designers.

Red Pedagogy

Because this study was conducted within the Indigenous education community, this study was informed by a critical Indigenous pedagogy. As stated by Maxwell (2005), “to be genuinely qualitative research, a study must take account of the theories and perspectives of those studied, rather than relying entirely on established views or the researcher’s own perspective” (p. 46). The term pedagogy was derived from the Greek *paid*, meaning “child”, and *agogus*, meaning “to lead” (Knowles, 1980, p. 40). Pedagogy is “the art and science of teaching” (Knowles, 1980, p. 40). *Indigenous* pedagogy is education based upon Indigenous worldviews.

Critical theory, which emerged in the early 20th century in Germany, “is the label for a group of participatory, pedagogical, and action-oriented theories” concerned with the critique of social systems (Freeman & Vasconcelos, 2010, p. 8). Critical theorists are concerned with the critical evaluation of cultural, economic and political institutions and systems in order to identify and eliminate oppression, exploitation and injustice (Freeman & Vasconcelos, 2010, p. 9). With regard to education, critical theory is concerned with how teaching and learning can be used to promote emancipation and social justice (Freeman & Vasconcelos, 2010, p. 13). Revolutionary critical theory emerged later as an approach calling for an even stronger “anticapitalist and emancipatory agenda” (Grande, 2008, p. 237) in response to growing awareness of the negative

effects of global capitalism (McLaran & Farahmandpur, 2001). Grande coined the term “Red pedagogy” to describe an Indigenous approach to revolutionary critical theory.

Red pedagogy proceeds from the belief that education has historically been a tool for the colonization and cultural genocide of Indigenous peoples. Red pedagogy is “an indigenous pedagogy that operates at the crossroads of Western theory – specifically critical pedagogy – and indigenous knowledge” (Grande, 2008, p. 234). Red pedagogy is based upon some of the core tenets of revolutionary critical theory – including the critique of capitalism and class conflict and a dialogical approach to education – but privileges particular Indigenous concepts of democracy, the nature of knowledge, of place and the sacred (Grand, 2008). Grande (2008) further explained that Red pedagogy “speaks to our collective need to decolonize, to push back against empire, and to reclaim what it means to be a people of sovereign mind and body” (p. 250). Red pedagogy is also a pedagogy of hope; Indigenous peoples can and have already begun to reclaim the right to educate in ways that celebrate Indigenous culture while preparing the next generation of Indigenous leaders (Grande, 2004). From this position, educators and scholars can begin to interrogate and decolonize both educational practice, and the auxiliary fields that have come to serve the modern educational project, including instructional technology.

Indigenous Research Methodology

As previously described, this qualitative study was underpinned by an Indigenous methodology because it involved Indigenous peoples. As an Indigenous researcher, I was particularly concerned with a research process that would be respectful and honor the values and protocols important to the participants – Indigenous educators. It was therefore culturally appropriate to employ a research methodology based upon Indigenous epistemologies as the basis for inquiry and data collection.

I also paid particular attention to the following critical issues, as developed by Tuhiwai Smith (1999) as part of an Indigenous methodology: (a) the orientation of the investigation, (b) the ownership of the knowledge gained from the study, and (c) the use of the knowledge that was gained from the study. Rather than engaging in efforts to gain knowledge *on or about* Indigenous peoples, this study was oriented to knowledge identification *by and for* Indigenous peoples, specifically educators and instructional designers. This study did not proceed from a deficit approach by comparing Indigenous institutions of higher education with dominant culture peers. Rather, I documented the ways in which information technologies were supporting and empowering the institution, the learners, and by extension, the community to achieve locally determined educational goals and community initiatives. This provided a context for critically examining my own practices and skills as an instructional designer. In keeping with a more humble approach, I placed myself, the researcher, as the focus of the study, the object under scrutiny, rather than the Indigenous community who hosted the study. I chose autoethnography as the method for this study because, as a method, autoethnography provided me the opportunity to twine together an ethnographic orientation to group cultural study with reflexive examination of the self (Chang, 2008; Creswell, 2007). Furthermore, as explained by Reed-Danahay (1997), “autoethnography provides a way to challenge the false dichotomy of the boundaries between the self and society, between the internal and the external” (p. 2). This study was based upon a personalized narrative account of the experiences and perspectives of an instructional designer as I was engaged in practice with educators in an Indigenous educational community. Autoethnography provided a suitable set of methods for critically and reflexively considering these experiences and interactions and drawing meaning from them.

Purpose of the Study

The purpose of this study was to critically examine the practices of an instructional designer working within an Indigenous higher education context in order to identify culturally relevant approaches to instructional design. The field of instructional design is guided by the application of theoretical models for practice. There are few developed models of instructional design that adequately attend to cultural orientation to be found in the literature. None of these models has been developed from within non-dominant cultural Indigenous education contexts. Furthermore, the literature examining the instructional designer as an actor within the instructional design process is limited. Few instructional designers have been trained to operate outside of Western epistemologies (Kinuthia, 2009).

Significance of the Study

Additional research can illuminate theoretical frameworks for culturally competent instructional design practice. Indigenous institutions that may find study outcomes relevant for the development and implementation of learning environments according to their own identified pedagogies of practice. Documented findings may also be used to establish professional development curriculums to improve the training and preparation of instructional design practitioners.

Research Questions

The literature review comprises a discussion of the historical context of Indigenous education in America, the emergence of a critical Indigenous pedagogy, and relevant cultural challenges for the field of instructional design, in order to provide a context for the following research questions:

1. Do Indigenous educators perceive that information technologies are inherently colonizing?
2. In what ways are Indigenous educators leveraging information technologies to support Indigenous education, cultural preservation, community transformation, and increased access?
3. What are the implications for practitioners of instructional design in Indigenous educational contexts?

Definition and Discussion of Terms

In order to further construct the relationship between the researcher and the reader, there are a number of terms that must be clarified, so that a common understanding is achieved.

Although the following terms have somewhat contested definitions, their application in this study were derived from the usages adopted by or clarified by Indigenous scholars.

Colonization

Colonization in this context is a negative term, defined by Tuhiwai Smith (1999) in terms of its relationship to *imperialism*, “a chronology of events related to ‘discovery’, conquest, exploitation, distribution and appropriation” of Indigenous people, lands, resources, and cultural artifacts (p. 21). Colonization is considered a specific aspect of imperialism, wherein Europeans established a presence among and a power over Indigenous peoples (Tuhiwai Smith, 1999, p. 21). Other scholars described colonization in terms of its effects on Indigenous peoples: exploitation, land fraud, disease, assimilation, and even genocide (Fixico, 1998; Grande, 2004). In this context, colonization refers to the legacy of historical attempts by dominant cultural systems, including the State and academic institutions, to conquer, eradicate, gain control of, or otherwise assimilate Indigenous peoples, values, spirituality, languages, and resources. The use

of the terms *colonialism* and *colonizing* describe the active application of, past or present, practices or policies on the part of those in power to promote or perpetuate an assimilative agenda and social injustice.

Diaspora

The term *diaspora* originated from the Greek word meaning to “scatter” or “disperse” and is defined as “a group of people who live outside the area in which they had lived...or in which their ancestors lived” (Merriam-Webster, 2014). Diaspora once referred exclusively to the Jewish people, in the context of their separation from their ancestral Promised Land (Brubaker, 2005, p. 2). In recent decades, the use of the term diaspora has been expanded to include other peoples, and encompasses three core ideas: (a) physical dispersion, (b) separation from a traditional homeland, (c) and the maintenance of boundaries, either physical, cultural or sociological (Brubaker, 2005, p. 5). Some scholars have referred to Indigenous peoples as a diaspora (Haig-Brown, 2009; Smithers & Newman, 2014). Usage of the term in this study to describe Indigenous peoples recognizes the loss of lands, physical and cultural dispersion by dominant cultures, and the continued status of many Indigenous communities as sovereign nations and cohesive entities, even as many exist under the governance of dominant cultural societies.

Culture

We are, each of us, steeped in *culture* as a function of our daily existence, and yet, it stands as one of the most difficult words in the English language to define with any consensus (Chen, Mashadi, & Harkrider, 1999; Mulcahy, 2006). A survey of working applications of the term across the myriad disciplines of human social science, including anthropology, education, communication, and business, yields a plethora of facets of being that can be ascribed to the

definition (Cole, 1996; Ferraro, 2008; Storck, 2009; Taras, Roney, & Steel, 2009). A threefold definition encapsulates the majority of popular definitions of culture as: (a) the *cognitive* aspects of culture, including beliefs, attitudes, and values; (b) the *behavioral* aspects of culture, including ways of being, interpersonal and group dynamics, customs, and rituals; and (c) the tangible *artifacts* of culture, including language, art, music, law, religion, literature, habitat, cuisine, and dress. “Thus, all cultures are composed of material objects; ideas, values, and attitudes; and patterned ways of behaving” (Ferraro, 2008; p. 28).

Culture is also a political term, as power is given or taken by the entity defining the culture, especially as it pertains to that of another people or group (Castagno & Brayboy, 2008). Furthermore, the separation of culture, into an abstraction and discrete entity, from the humanity within which it is conceived and enacted, is itself characteristic of the Western scientific tradition (Castagno & Brayboy, 2008). Castagno and Brayboy (2008) discussed three concepts of culture as related to colonialism: (a) a traditional Western conception of culture as the collection of beliefs, behaviors and artifacts that define the identity of a particular group or community, (b) a resistance-based understanding of culture as an identity that is retained despite colonial interventions by another, and (c) a politicized conception of culture as a set of shared ways of being that both set one group apart from another while offering a shared identity within the group (p. 944).

Essentialism

Essentialism, for our purposes, is the notion that cultural identity can be accurately and, unchangeably, defined in succinct and all-encompassing terms (Kincheloe & Sternberg, 2008). An equally troubling corollary to essentialism as it is related to Indigenous peoples is that the definition is often voiced by the non-Indigenous (Kincheloe & Sternberg, 2008), and ultimately

becomes the criteria by which ‘authentic’ Indigenous identity is judged (Tuhiwai Smith, 1999). This is considered yet another form of colonial oppression, created by Western scholars, for the purpose of dehumanization, by creating ossified, romantic, exotic conceptions of the Indigenous “Other” (Tuhiwai Smith, 1999).

Like other global cultures, Indigenous cultures and languages are not static, but change over time. Culture is both stable and dynamic as it pertains to one’s historical understandings of tradition, but adapting always to modern life (Castagno & Brayboy, 2008). Furthermore, American Indians are diverse and there is no pan-Indian culture that accurately represents them all (McClellan, Tippeconnic Fox, & Lowe, 2005b). It would be inappropriate to construct a pan-Indian, monolithic cultural identity that represents all Indigenous communities or individuals for the purposes of this or any other research work; furthermore, it is considered wrong for one Indigenous person or tribe to co-opt the role of cultural authority for all others (Taylor, 2005). Most Americans have concepts of American Indian culture based on a combination of knowledge of historical snapshots taught in school and the romantic characterizations found in popular media, in relationship or contrasted with traditional dominant cultural frameworks. These characterizations of Indigenous culture have created irrelevant, dehumanizing caricatures that neither reflect the realities of tribal communities nor serve the larger causes of social justice, survival or restoration (Grande, 2004). Nevertheless, there are threads that are common across many Indigenous communities and inform an Indigenous world view, including:

- Ecological awareness of the interaction and interdependence of humankind with the whole of creation;
- An historical legacy of the negative and destructive effects of the colonizing activity of a foreign nation-state; and

- Ontological, epistemological, and axiological views that differ, frequently antithetically, with Western empiricism (Kincheloe & Steinberg, 2008).

Like all other human groups, Indigenous communities maintain an affinity for traditional ways of being, while adapting, evolving and changing, as traditional ways of being continue to be created and transmitted (Castagno & Brayboy, 2008, p. 944). With intention, operationalization of Indigenous identity was not undertaken as a concern in this study; rather, discussion focused on the efforts of Indigenous educators to support, empower and promote the self-determination of Indigenous peoples.

Indigenous

There are more than 500 federally recognized tribes in the United States (Horse, 2005). As has already been discussed, there is no monolithic or essentialist depiction of singular identity that can encapsulate the diversity of tribal peoples. In research literature, the use of the terms *Native American*, *American Indian*, and *Indian* are often used interchangeably and are typically a matter of preference, although some Indigenous scholars have pointed out the troubling origins of the term “Indian,” based upon Columbus’ error about the location of his so-called “discovery” (Horse, 2005). “Other collective terms also in use refer to ‘First Peoples’ or ‘Native Peoples’, ‘First Nations’ or ‘People of the Land’, ‘Aboriginals’ or ‘Fourth World Peoples’” (Tuhiwai Smith, 1999, p. 6). The term *Indigenous* is derived from the social and political action of civil rights activists to reclaim identity and form a collective voice for the purposes of empowerment (Tuhiwai Smith, 1999). Wilson (2008) further stated “Indigenous is inclusive of all first peoples – unique in our own cultures – but common in our experiences of colonialism and our understanding of the world” (p. 16). In this study, the use of term *Indigenous* identified ideas held in collective or globally, and more specific tribal or cultural terms were used when specific

to a particular tribal group or persons. The terms *American Indian* or *Indian* were used interchangeably to identify that which is common to the tribes residing within the United States of America.

Positivism

“*Positivism* espouses the view that there is one true reality that can be broken down into overriding laws” (Wilson, 2008, p. 37). Positivism is an epistemological view that “experience is the foundation of knowledge” (Bernard, 2006, p. 18); thus, the goal of scientific research is to arrive as closely as possible to “truth” (Wilson, 2008). Tuhiwai Smith (1999) further explained that the key aspect of positivist research is measurement. Bernard (2006) describes the major tenets of positivism:

- The scientific method is the best method for gaining knowledge of the natural world;
- Scientifically produced knowledge can be used to effectively control our internal, social and natural environments;
- Knowledge can, and should, be used to improve human life (p. 14).

In Indigenous contexts, the tradition of positivist research has imposed ways of viewing knowledge, time, space, language and power that are often antithetical to Indigenous ways of knowing (Tuhiwai Smith, 1999). Furthermore, Western knowledge paradigms have perpetuated the wholesale devaluation of Indigenous knowledge traditions. Western knowledge is labeled truth; Indigenous knowledge is labeled “myth” and “folklore” (Austin, 2005, p. 46). McGloin, Marshall and Adams (2009) advocated for the reconsideration of Indigenous knowledge, stating:

It is important to note that the science applied by Indigenous people is based in much more diverse assumptions or beliefs about “truth” and “proof”. Indigenous scientific knowledge is grounded in observation of the world over millennia. Its authority, then,

derives not from hypotheses, but from tens of thousands of years of “listening” and experiencing; it is the basis of survival. (p. 4)

Ontology

Ontology is the theory of reality, the beliefs that underpin the criteria for determining what is real (Wilson, 2008). An expanded definition of ontology is given as “ways of being, believing, understanding, experiencing, seeing and representing the lived and spiritual worlds – that are specific to particular groups of people” (McGloin, et al., 2009, p. 4).

Epistemology

Epistemology is the study of how we know things, or what is known (Bernard, 2006; Wilson, 2008). Epistemology is derived from ontology; a person’s perception of reality informs how he or she thinks about reality (Wilson, 2008, p. 33). Western epistemology privileges science as truth and the lens through which all ways of knowing can be judged as credible and valuable (McGloin, et al., 2009).

There is no universal epistemology that defines all Indigenous peoples; as with any society, the practitioners and scholars of the field of education within a particular society differ in their epistemological views (Castagno & Brayboy, 2008). Nevertheless, there are threads that run commonly through many Indigenous epistemologies, including (a) the significance of relationality among people; (b) the interdependence and relationship of humans to the larger environment of creation; (c) responsibility to the community group; and, (d) an emphasis on the significance of place (Castagno & Brayboy, 2008). Furthermore, Castagno and Brayboy asserted there are fundamental differences concerning Indigenous epistemologies and Western epistemologies with regard to the nature of knowledge and ownership of information, which cannot be compared in simple binary ways.

Axiology

Axiology in this context refers to the moral center, or ethical framework, from which research practices emanate (Wilson, 2008). In Western scholarship, research practices are carefully governed by established guidelines, enforced by boards or committees that oversee research endeavors. Some Indigenous scholars have argued, however, that the axiology that underpins academic ethical research practices leads to protocols that, in certain cases, are either inappropriate or irrelevant in Indigenous research contexts (Tomaselli, Dyll, & Francis, 2008; Wilson, 2008). The axiological approach guiding this study is further discussed within the context of the study methodology.

Decolonization

Decolonization in this context refers to the ways in which Indigenous peoples seek to sustain, preserve, revitalize, restore, empower, transmit, celebrate and privilege Indigenous culture, values, languages and ways of being in spite of the detrimental legacy of European colonization (Grande, 2004; Tuhiwai Smith, 1999). Decolonization is active and moves beyond survival to include “the process, in both research and performance, of valuing, reclaiming, and foregrounding Indigenous voices and epistemologies” (Denzin, Lincoln, & Smith, 2008, p. 22). Scholars who subscribe to a decolonization paradigm approach ontology, axiology, epistemology and methodology from an Indigenous point of view (Denzin, et al., 2008).

Sovereignty

The Oxford Dictionary (2014) defines *sovereignty* as “supreme power or authority” or “the authority of a state to govern itself or another state” (para. 1). With regard to Indian people, tribal sovereignty “includes the recognition of Indian nations and the right of those nations to enact and enforce their own laws. It also refers to the right of Native American people to self-

determination in all matters pertaining to their lives” (McClellan, et al., 2005b; p. 8). American Indians do not share the same status as other minority groups in this country (Cole, 2010; Horse, 2005). The Indigenous Nations residing in the United States have a special relationship with the Federal government that has been defined through treaties, legal action, and Congressional decree since the birth of the republic (Austin, 2005; Horse, 2005). Indian Nations interact with State and Federal authorities on a government-to-government basis, historically in the form of treaties (Austin, 2005; Horse, 2005).

Americans hold sacred the concept of equality and freedom for all peoples regardless of status or origin, as codified in the Constitution. Notwithstanding, Grande (2004) stated the lack of public awareness about the special relationship among Indian Nations and the republic has led to widespread misconception about the rights and concerns of American Indians, and the perception that they demand more than a fair share of attention and consideration, as compared with other American minority groups. In fact, Federal law and legal action have defined a separate status and standards for Indian peoples, which have varied over the course of American history and impact property rights, education, taxation, social services, and myriad other aspects of public and private life (Grande, 2004). Grande further explained that sovereignty for American Indians is linked closely with *self-determination*, the right to operate without Federal mitigation. Unlike other American minority groups, American Indian tribes are not seeking increased access to the American dream, but seek justice to hold the United States Government accountable for pre-existing treaties, many of which have been violated or disregarded in the course of history (Grande, 2004; Deloria, 1988).

Delimitations of the Study

Despite extensive discussion within this study about Indigenous epistemologies, it is inappropriate to proceed with a notion of a monolithic or fixed Indian identity or set of Indigenous values (Kuokkanen, 2003). As explained by Kuokkanen (2003) values vary across peoples and even within set groups, and change over time; therefore, any notion of a specific Indigenous perspective or epistemology is likely to be a generalization, or worse, an idealization. Kuokkanen (2003) asserted “there is a clear need to distinguish between simplistic, generalized, reductionist, biased, or stereotypical (or even racist) interpretations of Indigenous epistemes and more nuanced, culturally sensitive analyses and descriptions by Indigenous people themselves” (p. 279). Western academics must reconsider ontological and epistemological assumptions about and prejudices toward Indigenous peoples if the academy is to become more socially just (Kuokkanen, 2003, p. 285). A singular Indigenous epistemology cannot be empirically identified, and no attempt to do so was made within the context of this study. Nevertheless, there are common threads that run through various Indigenous cultures.

Generalizability also poses a further limitation of this study. This research took place within a specific tribal college setting; thus, outcomes may not apply to all tribal college settings or other Indigenous educational contexts.

CHAPTER 2: REVIEW OF THE LITERATURE

Introduction

I received my preparation as an educator and my training to practice in the field of instructional design from the Western academy. My education was underpinned by Western educational philosophies and delivered according to a Western pedagogic perspective. The central goal of this study was to critically analyze my practices as an instructional designer through an Indigenous lens. Therefore, it was necessary to acquaint myself with the history and issues relevant to an Indigenous higher educational context in the digital age as part of my preparation to participate in this study.

In this chapter, I review and discuss the key bodies of literature which informed my approach to this study. First, I considered the history of Indigenous education in American as the context from which tribal colleges have emerged. Next, I traced the emergence of Indigenous pedagogy, which underpinned the Indigenous methodology chosen for this study. Then, I reviewed key theoretical models in the field of instructional design, a field of educational practice intimately identified with the digital age, as a foundation for a call to decolonize instructional design. Finally, I considered examples of the ways in which Indigenous educators have engaged the digital age in support of Indigenous education.

Western Culture in American Education

John Dewey, considered one of the preeminent American progressive educational philosophers, was an apologist for the democratic imperative to prepare independently thinking citizens equipped for life in an emergent federal democracy. Dewey (1916) wrote:

A society which makes provision for participation in its good of all its members on equal terms and which secures flexible readjustment of its institutions through interaction of the

different forms of associated life is in so far democratic. Such a society must have a type of education which gives individuals a personal interest in social relationships and control, and the habits of mind which secure social changes without introducing disorder. (p. 115)

Stemming from the American values of equality and inalienable human rights, education was for all, irrespective of socio-political class. Dewey was critical of Greek educational philosophies, which came to define and serve the European views on feudal society and the role of education. According to the former philosophy, education of a mechanistic type was appropriate for the necessary servant classes; intellectually stimulating pursuit of higher learning, including humanities and arts were best reserved for the ruling classes. A king must be a thinking creature but his subjects are best suited to quiet, dutiful pursuit of their trades. Dewey countered this viewpoint when he wrote, “the *distinctively* human function is reason existing for the sake of beholding the spectacle of the universe” (p. 295). Dewey further identified the American ideal of education as life-giving and fundamentally human, stating “education is not a means to a living, but is identical with the operation of living a life which is fruitful and inherently significant” (p. 281).

The enterprise of American mass education has never been a neutral pursuit, but aimed at what Grande (2004) described as “nation building” (p. 32) – the process of Americanizing the land and its people. Education was designed to create citizens who were ideologically oriented to a particular way of life in the new democratic system. Implicit in the imperative for mass education is the fundamental conception of a common culture (Grande, 2004). When Dewey (1916) utilized the adjectives “fruitful” and “significant” to equate education with positive living, cultural orientation to the meaning of those terms is called into question. “Cultural influences

are so pervasive and durable that virtually every aspect of life is colored by the filter of culture” (Williams-Green, et al., 1997, p. 4). By extension therefore, “culture and learning are interwoven and inseparable” (McLoughlin, 1999, p. 232).

As previously discussed, Western epistemology privileges science as truth and the lens through which all ways of knowing can be judged as credible and valuable (McGloin, et al., 2009). Western approaches to education are tied to Western epistemology. Indigenous epistemologies differ significantly from Western frameworks with regard to the nature of relationships, knowledge and the nature of self, developed over thousands of years of social development (Castagno & Brayboy, 2008; McGloin, et al., 2009). Indigenous knowledge is considered myth and folklore; Western knowledge is labeled truth (Austin, 2005). In Western classrooms, this usually means that “certain types of knowledge are taught, particular truths sanctioned...there is a struggle for other forms of knowledge to gain recognition, let alone credibility” (McGloin, et al., 2009, p. 4).

The historical relationship between tribal people and the various intervening American educational agendas provides a context for understanding both the problematization of American Indians and attempts to colonize Indigenous people (Grande, 2004; Smith, 1999). “Indian education was never simply about the desire to ‘civilize’ or even deculturalize a people, but rather, from its very inception, it was a project designed to colonize Indian minds as a means of gaining access to Indian labor, land and resources” (Grande, 2004, p. 19). The legacy of colonization further highlights the significance of contemporary efforts by Indigenous scholars and educators to reclaim educational sovereignty and decolonize pedagogical practices, including the arena of higher education (Grande, 2004; Kincheloe & Steinberg, 2008; McClellan, et al., 2005b).

A Brief History of Indigenous Education in America

In 1744, the government of Virginia entered into a treaty with the Six Nations Indians living in that region. As part of the treaty, Six Nations was invited to send six of their finest young men to attend the College of William and Mary, all expenses paid, to receive a Westernized formal education (Franklin, 1784). The Indians responded:

We know...that you highly esteem the kind of Learning taught in those Colleges, and that the Maintenance of our young Men while with you, would be very expensive to you. We are convinc'd [*sic*] therefore that you mean to do us Good by your Proposal, and we thank you heartily. But you who are wise must know, that different Nations have different Conceptions of Things, and you will therefore not take it amiss if our Ideas of this kind of Education happen not to be the same with yours. We have had some Experience of it: Several of our young People were formerly brought up at the Colleges of the Northern Provinces; they were instructed in all your Sciences; but when they came back to us they were bad Runners ignorant of every means of living in the Woods, unable to bear either Cold or Hunger, knew neither how to build a Cabin, take a Deer or kill an Enemy, spoke our Language imperfectly, were therefore neither fit for Hunters, Warriors, or Counsellors, they were totally good for nothing. We are however not the less oblig'd [*sic*] by your kind Offer tho' [*sic*] we decline accepting it; and to show our grateful Sense of it, if the Gentlemen of Virginia will send us a Dozen of their Sons, we will take great Care of their Education, instruct them in all we know, and make *Men* [*sic*] of them.

(Franklin, 1784, para 3)

Long before the founding of the United States, Indigenous peoples living on this continent had well-established systems of education in place (Davis, 2001). The educational

model of choice was a form of group apprenticeship; knowledge was passed on from Elders to the young through example and practice (Cajete, 2005; Davis, 2001). The curriculum was based on oral tradition, including story-telling and Elder wisdom (Cajete, 2005; Davis, 2001).

According to Cajete (2005), the preferred curriculum as based on a combination of the needs of daily living, the apparent gifts of the child, and the sacred observances valued by the people, all in concert with the natural world. “It was a process of education that unfolded through reciprocal relationships between one’s social group and the natural world” (Cajete, 2005, p. 70).

American education systems, on the other hand, were based on European forms and deriving from an entirely different epistemological base, to include the Western conventions of science and reason, apart from the mystical. Curriculum was based upon texts in written form that crossed time and civilizations. The Western academy did not recognize established Indigenous education systems, in part, for a lack of recognizable institutions or literary traditions (Taylor, 2005). Furthermore, where recognized, Indigenous approaches were deemed backward and devalued, even savage (Grande, 2004). McClellan, Tippeconnic Fox, and Lowe (2005b) defined three eras of American Indian higher education: (a) the Colonial era, beginning before the formal establishment of the United States of America; (b) the Federal era, with its emphasis on assimilation and eradication; and, (c) the self-determination era, barely a generation old.

The Colonial Era (16th – Early 19th Centuries)

Beginning with the first American colonies, three prominent colonial colleges – Harvard, Dartmouth, and the College of William and Mary – described the education of Indians as core to their educational missions (McClellan, et al, 2005b). The central aims of this educational endeavor was to “Christianize” and “civilize” the Indian, thus separating him from his unsuitable tendencies and preparing him for amenable life in colonial society (Grande, 2004, p. 11).

European colonists believed in Manifest Destiny, the view that colonists had divine right to the land and resources available in the new world, in part, because the original inhabitants were unworthy savages (Taylor, 2005). Thus was born the “Indian problem,” since the millions of inhabitants that occupied this continent possessed both the land that colonials desired, and engaged in lifeways colonists regarded as detestable (Taylor, 2005). Education, then, was leveraged as a tool by which the original inhabitants of the land could be amenable oriented for colonization (Grande, 2004). Nevertheless, these colleges enrolled only a few dozen Indian students, and succeeded in collectively graduating only a handful of Indigenous students in the first century of operation (McClellan, et al., 2005b). Furthermore, as might be surmised by the disconnect between Indigenous educational goals and colonial ideals described above, Indian students who did attend were neither welcomed in colonial society (as they were still non-white), nor fully welcomed upon return to their tribal communities (having adopted Western cultural identities) (McClellan, et al., 2005b).

The Federal Era (Mid-19th – Mid-20th Centuries)

The newly formed American federal government acted swiftly to establish legal treaties with the Indian nations residing in and beyond domestic borders, including those governing education (McClellan, et al., 2005b). The underlying aim of this period was coercive assimilation, with the emphasis on attendance by Indigenous students at White institutions (Cole, 2006; Dilevko & Gottlieb, 2004; McClellan, et al., 2005b). Native children were mandated to attend boarding schools, sometimes forcibly so, sometimes hundreds of miles away from their families, and sometimes for years without an opportunity to be reunited with the community (Fixico, 2003; Lajimodiere, 2012). Children and young adults were schooled under the motto, “kill the Indian and save the man” (Pratt, 1892, p. 46). Indigenous scholars, Fixico (2003) and

Lajimodiere (2012), documented several accounts of Elders' stories about their experiences in government-sponsored boarding schools. Elders described incidences of severe physical punishment and humiliation whenever they spoke their native languages or failed to perform according to dominant cultural standards (Fixico, 2003; Lajimodiere, 2012).

During this period, strong alliances between churches and the state were established, as federal funds were awarded to various religious bodies for regional control of tribal communities and lands (Deloria, 1988; Grande, 2004). Furthermore, emphasis was placed on vocational education for a growing industrialized nation, including domestic household service, farming, and manual trades (Grande, 2004; McClellan, et al., 2005b; Taylor, 2005). Little interest was paid to addressing American Indian higher education (McClellan, et al., 2005b). It was also during the 19th century that the Federal government established the Bureau of Indian Affairs (BIA), a government controlled-agency, to manage the overwhelming national effort to conduct Indian education (Bureau of Indian Affairs, 2014).

The Self-Determination Era (Mid-20th Century Through to the Present)

The beginning of the self-determination era is in dispute by scholars (McClellan, et al., 2005b). The Merriam Report was published in 1928 and urged the importance of culturally relevant education for Indian youth; nevertheless, tribal communities were not granted the right to administer their own schools and colleges until the 1960s (Castagno & Brayboy, 2008). The progressive educational movement also called attention to the general value of grounding education in contexts relevant to learners (McClellan, et al., 2005b). In the 1940s and 1950s, the federal government aggressively pursued policies designed to relocate American Indians from reservation to urban communities, and dissolve formal recognition of a large number of sovereign nations, thus dissolving federal responsibility to uphold treaties and responsibilities

(McClellan, et al., 2005b). In the aftermath of the brutally assimilative curriculums of the boarding school era, the federal policy of termination further added to the diaspora, as increasing numbers of Indian youth and families were geographically and culturally displaced (McClellan, et al., 2005b).

The civil rights movement of the 1960s provided a social space wherein Indigenous people could begin to reassert their objections to educational oppression (Taylor, 2005). Indigenous people began to reclaim sovereignty and the right to self-determination, including the education of tribal citizens. Many agree that the rise of tribal colleges signaled a new era and the potential to engage in the decolonization of education (Grande, 2004; McClellan, et al., 2005b).

The Tribal College Movement

Self-determined post-secondary education is thus a relatively new option in Indian country; reflecting marginal change in the relationship between the American government and the tribes (Cole, 2006; McClellan, et al., 2005b). Tribal colleges and universities (hereafter referred to as TCUs) were first formed in the late 1960's through several federal initiatives to provide increased rights of self-determination to Indigenous peoples (Cole, 2006). TCUs have evolved into important sources of opportunity and empowerment in tribal communities (Boyer, 2008; Martin, 2005; McClellan, et al., 2005b).

The general mission of every TCU is to bridge the traditional and the modern, reflecting curriculums that offer mainstream academic content combined with tribal original language instruction, all within a culturally relevant context (Cole, 2006; Dilevko & Gottlieb, 2004). Nevertheless, TCUs must balance this directive to honor traditional ways of being with accountability to dominant culture accrediting agencies and federal funding bodies (Cole, 2006). The American Indian Higher Education Consortium (AIHEC) was organized in 1972 to provide

collaborative support among tribal college administrators, educators and students (Martin, 2005). AIHEC has been instrumental in lobbying for legal and financial support at the federal level (Martin, 2005).

Like all viable communities, tribes also have need of skilled and knowledgeable citizens to administer government, design and implement educational systems, run businesses, plan community development, manage resources and community services, and meet community health needs. Furthermore, the critical work of increasing tribal sovereignty and self-determination demands legal, environmental and cultural expertise (Austin, 2005). In the dominant culture, it is recognized that higher education often benefits both the individual quality of life and the community as a whole (Duderstadt, 2009); tribal communities have also begun to realize the value of advanced education (Martin, 2005). TCUs provide an important system for Indigenous communities to grow their own experts and citizen leaders, and thus, play a vital role in the future of self-determination and tribal sovereignty for Indigenous Nations (Martin, 2005). Furthermore, TCUs often serve as centers for Indigenous research and cultural preservation, catalysts of economic development, and community cultural and social service centers (Boyer, 2008; Martin, 2005; Austin, 2005).

Tribal college curricula emphasize and privilege the perspectives and cultures of their respective tribal sponsors (Boyer, 2008; Cole, 2010). TCUs have significantly increased American Indian access to higher education, and increased participation and graduation rates by providing culturally relevant educational opportunities (Martin, 2005). TCUs offer associate degrees, and some also offer bachelor's degrees and graduate education, currently enrolling more than 30,000 students in 37 institutions nationally (Martin, 2005; Austin, 2005). Tribal college student graduation rates, 86%, are higher than national averages (Austin, 2005). Furthermore,

students who graduate from a TCU, and then go on to a mainstream institution, complete at four times the rate of Indian students who have not attended a TCU (Martin, 2005). Tribal college graduates generally experience improved employment opportunities and higher wages and tribal communities benefit as educated and culturally invested citizens use their talents locally (McClellan, et al., 2005b).

Despite their vital role in the community, TCUs are inherently challenged institutions: frequently underfunded and often operating within communities that are economically challenged and understandably skeptical of Western education. As described by Stein (1999), per student federal funding allocations for TCUs has diminished steadily since inception (in McClellan, et al., 2005b). TCUs frequently operate in contexts of high poverty and tend to be significantly underfunded in comparison to other community colleges (Martin, 2005; Austin, 2005). TCUs frequently do not receive state-level funding, but are nonetheless subject to the same accreditation requirements as dominant culture public institutions (Martin, 2005).

American higher education often confronts American Indian students with challenges due to lack of appropriate academic preparation, cultural disconnect and perception that tribal cultural identity is not valued (Taylor, 2005). Presently, success in the academy is partly an ability to conform to dominant culture educational norms and behaviors. It is an alienation from self-identity, community support, and a continual sense of necessity to define, defend and declare one's identity as an Indigenous person that can particularly undermine success in higher education (Lowe, 2005). One study of Indigenous students in higher education indicated that American Indian graduate students attributed success, in part, to their own confidence about their individual cultural identities and the ability to rely on certain values and traditional practices to support themselves emotionally and spiritually through the educational process (Taylor, 2005).

Contrasting with dominant culture institutions, Martin (2005) cited several aspects of the tribal college approach to education that contribute to student success, including:

- Individualized attention by faculty to students;
- Family support services to help the student address non-academic needs;
- Culturally relevant curriculum;
- Access to financial aid; and,
- Proximity and integration with the local community, through Elder participation, community ceremonies and celebrations, and educational opportunities for other members of students' families.

While TCUs could be considered “islands of hope” (McClellan, et al., 2005b, p. 12) with regard to American Indian higher education, little has changed within the larger context of American education. Tribal communities recognize education as strongly tied to sovereignty and self-determination; however, “these connections are rarely recognized among mainstream educators or educational policy makers” (Castagno & Brayboy, 2008, p. 949). Several Indigenous scholars have documented either the complete invisibility of Indigenous educators and students within the dominant culture academy, or their struggles with regard to tokenism, along with a general lack of interest on the part of the academy in Indigenous epistemologies (Bauer, 2003; Fenelon, 2003; Gareau, 2003; Green, 2003; Hausman, 2003; Kuokkanen, 2003; Lacourt, 2003; Mihesuah, 2003a; Tippeconnic Fox, 2005).

Red Pedagogy

In 1995, the United Nations declared the beginning of the decade of the World's Indigenous People and a formal declaration was outlined the following year (Denzin, et al, 2008). It has since been updated. Article 14 of this declaration read, in part, “Indigenous

peoples have the right to establish and control their educational systems and institutions providing education in their own languages, in a manner appropriate to their cultural methods of teaching and learning” (United Nations, 2008; p. 7). This declaration marked a new level of global awareness about need for reform and the inherent rights of Indigenous communities; nevertheless, colonization and its affects have not been undone. Despite American progress in the areas of social justice and equality, public education in this country still privileges the educational norms and learning preferences of white, middle-class males (Taylor, 2005). Taylor (2005) further explained:

America’s societal norms have historically been based primarily on the European concept of a White, Protestant, male superiority that originated with the Greeks. The resulting hierarchy, social stratification and the belief in European male supremacy, along with the perceived right of their dominance over non-White populations evolved into an epistemology that even today continues to favor upper-class, white, males. The result is an outcome that produces an enduring policy of assimilation, deculturalization, and marginalization of American Indian people. (p. 2)

Although the Merriam Report, published in 1928, called for sweeping reforms in the education of American Indian children, it wasn’t until the civil rights movement that interest in culturally relevant education gained momentum (Demmert & Towner, 2003). New federal legislation, coupled with active discourse by Indigenous scholars during the 1960s and early 1970s, outlined the need for new approaches to Indigenous education based upon Indigenous epistemologies (Demmert & Towner, 2003). Castagno and Brayboy (2008) defined culturally responsive schooling (CRS) as the practice of education that includes indigenous language instruction, culturally relevant curriculum and indigenous teaching methods, as determined for

any given tribe or indigenous educational community (p. 941). Although the use of terminology varies among scholars, common core principles of Indigenous pedagogy are supported by the literature. Demmert and Towner (2003) utilized the term culturally based education (CBE) to describe their approach to Indigenous pedagogy, based upon six fundamental elements:

1. Recognition and use of Native languages as a basis for instruction;
2. Pedagogical emphasis on traditional cultural characteristics and adult-child interactions;
3. Pedagogical emphasis on traditional culture and ways of knowing;
4. Curriculum that represents and highlights traditional culture, including spirituality;
5. Community participation, including Elders and parents, in classroom teaching and school planning; and,
6. Integration of the social and political mores of the community (pp. 8 – 9).

Similarly, Cajete (2005) described seven foundations of Indigenous education, based upon common aspects of Indigenous epistemologies:

1. Environmental foundation, including the relationship of people to place, and humankind to the environment, understanding that “tribal people and their environment established and perpetuated a mutual and reciprocal relationship” (p. 74);
2. Mythic foundation, including the significant aspects of storytelling that undergird oral cultures;
3. Visionary foundation, including traditional psychological and spiritual experiences “to directly access knowledge and understanding from primary sources deep within themselves” (p. 74);
4. Artistic foundation, including the aesthetic expressions of culture, that taken together with the Mythic and Visionary foundations “form a natural triad of tools, practices, and

ways of teaching and learning that, through their interaction and play, form a fourth dimension for deep understanding of our inner being” (p. 74);

5. Affective foundation, including the love of one’s land and people as a motivation for learning and community cohesion;
6. Communal foundation, emphasizing the collaborative and communal activity of education, based upon relationships among community members, clan members, and family members; and,
7. Spiritual foundation, described as “not only the foundation for religious expression but the ecological psychology that underpins the other foundations” (p. 77).

As the CRS movement gained momentum, significant scholarship was undertaken to determine how Indigenous students learn, describing culture as a basis for difference. Learning styles research described Indigenous students as differing significantly from White students, preferring kinesthetic and holistic orientations to learning (Castagno & Brayboy, 2008). A study by Powers (2006) examined culturally-based instructional programs for urban American Indian youth and provided some limited evidence of correlation between culturally relevant educational practices and Indian student success for students who closely identify with their Indigenous cultural values.

Although educators have long held a deficit understanding of Indian students as an explanation of lack of academic success and persistence, the educational system may be the source of failure through the disconnect between the Indigenous learner’s needs and the dominant cultural norms present in the system (Powers, 2006). Prior research on Indigenous learning styles and academic aptitude was based upon competencies derived from Western epistemology and defined Indigenous learners in relation to White counterparts (Powers, 2006).

Furthermore, Castagno and Brayboy (2008) argued that much of the research on learning styles was sexist and racist and narrowly defined students in ways that denied the diversity of peoples even within culture groups, thus fostering false expectations among educators. Additionally, many educators have stereotyped historical understandings of Indigenous cultures (Castagno & Brayboy, 2008). In an extensive review of several decades of literature on CRS, Castagno and Brayboy were also critical of the lack of meaningful application of Indigenous epistemology into education, and stated:

Although the plethora of writing on CRS that we review here is insightful, it has little impact on what teachers do because it is too easily reduced to essentializations, meaningless generalizations, or trivial anecdotes – none of which result in systematic, institutional, or lasting changes to school serving Indigenous youth. (p. 942)

They urged, rather, that teachers focus on skills of how to tailor learning to meet the needs of individual students, and adopt multicultural pedagogical practices that have proven to improve learning among all students. The researchers further suggested that focusing less on attempts to define Indigenous learners and more on teacher practices that have proven beneficial.

Pedagogical practices that are grounded in the learners' cultural orientation appear to improve learner success (Castagno & Brayboy, 2008). In other words, turning from the view of learner as “disadvantaged” to that of educator and education as deficient may be more productive.

Castagno and Brayboy described several pedagogical practices that have shown positive effects, including:

- Adoption of a cooperative learning approach, including a comprehensive attitude about the social and shared aspects of learning;

- The integration of visual activity and elements into the learning environment, as a complement and supplement to oral learning;
- Reducing the tempo of classroom discussion to allow learners more time to think and process information before responding; and,
- Integration of social justice strategies that engage and empower students to have an active voice.

Furthermore, the content of the curriculum itself should reflect the history, context, and cultural values of the learners who will use it, in ways that are not merely superficial. Educators were urged to become knowledgeable themselves and enlist the collaboration of community members to review, monitor and create relevant curriculum that supplements or supplants standardized materials (Castagno & Brayboy, 2008). Castagno and Brayboy also identified specific professional characteristics that CRS educators demonstrate, including:

- An affective demeanor of warmth and caring, including the willingness to share classroom authority and act flexibly;
- High expectations of learners;
- A genuine interest in, working knowledge of, and respect for Indigenous cultures;
- Community involvement; and,
- An understanding of the unique relationship among Indian peoples and the Federal government.

Kincheloe and Steinberg (2008) advocated for the adoption of a critical multilogical approach to education, which both countered essentialism by asserting the diversity of human expression and experience and also provided relevance and agency for individuals to thrive within the learning environment. According to Kincheloe and Steinberg:

Once teachers escape the entrapment of the positivist guardians of Western tradition and their mono-cultural, one-truth way of seeing, they come to value and thus pursue new frames of reference in regard to their students, classrooms, and workplaces. In this cognitivist cubist spirit, critical multilogical teachers begin to look at lessons from the perspectives of individuals from different race, class, gender and sexual orientations. They study the perspectives their Indigenous, African American, Latino, White, poor and wealthy students bring to their classrooms. They are dedicated to the search for new perspectives. (p. 139)

Kincheloe and Steinberg urged educators and researchers to utilize Indigenous knowledge in their practice, to:

- “Promote rethinking our purposes as educators” by considering multilogicality – “multiple perspectives of human and physical phenomena” (p. 147);
- Focus “attention on the ways knowledge is produced and legitimized” (p. 148);
- Encourage “the construction of just and inclusive academic spheres”, not merely tacking Indigenous knowledge on as an accessory (p. 148); and,
- Produce “new levels of insight” to promote consciousness and solidarity (p. 149).
- Demand “that educators at all academic levels become researchers” in order to strengthen their skills and capacities as liberatory educators (p. 149).

Few would argue against the need or justification for Indigenous communities to conduct the education of their citizens on Indigenous terms. Some scholars, however, argued that the movement has not gone far enough and was largely misunderstood and misapplied in dominant culture educational settings, especially important given that the majority of Indigenous students attend dominant culture schools (Castagno & Brayboy, 2008; Giroux & Giroux, 2008; Grande,

2004). A significant portion of Indigenous students are still marginalized in America: the lowest achieving, the least empowered with regard to access and representation, and the most likely to be labeled as deficient (Grande, 2008, p. 235). Furthermore, unlike other minority groups, Indigenous communities are not generally looking to education to provide them greater access to dominant culture society and equality within the mainstream; rather, education is considered to be a tool by which sovereignty can be preserved and self-determination can be restored (Grande, 2004). Indigenous people are interested in how education can be useful for sustaining, building and transforming their own communities, not in how it enables individuals to participate in a hegemonic democracy (Grande, 2004). Castagno and Brayboy (2008) were critical of the historical use of culturally relevant schooling (CRS) and wrote:

The reasons most often cited in the literature for CRS shed light on the importance of self-determination and tribal sovereignty, racism, and Indigenous epistemologies. Much of the learning styles literature risks either implicitly or explicitly making broad generalizations and essentializing what is actually an incredible range of variation [among learners]. This work and the way it is often read perpetuate racist beliefs and schooling practices. Furthermore, many of the presumed “cultural” reasons for engaging in CRS would be better understood if reframed in relation to Indigenous epistemologies. And finally, the anticipated outcomes of Indigenous youth successfully negotiating multiple and varied contexts becomes even more critical when connected to tribal sovereignty and the goals of self-determination. (p. 961)

Indigenous scholars argued that education has to also include mechanisms for critical examination of racism and paradigms of oppression in educational systems and society. Grande (2004) explained:

While acknowledgement of the relationship between education and culture is important, unless relationship between culture and the socioeconomic conditions within which it is produced is recognized, the so-called at-risk conditions common to peoples living under siege will persist. With regard to American Indians, this means understanding that “the Indian problem” is not a problem of children and families but rather, first and foremost, a problem that has been consciously and historically produced by and through the systems of colonization: a multidimensional force underwritten by Western Christianity, defined by white supremacy, and fueled by global capitalism. (p. 19)

Critical scholars challenged the hegemonic application of education, building a critical pedagogy for liberation and social justice. Critical theorists evaluate and critique social structures in order to examine inherently unjust and undemocratic aspects of those structures (Freeman & Vasconcelos, 2010). Critical theorists believe that education can be a tool for social justice, and emphasize inclusion of diverse perspectives and interests in the quest for a socially just society (Freeman & Vasconcelos, 2010). Critical pedagogy is both the interrogation of the ways in which education is oppressive and undemocratic, and the intervention by which educators and scholars may become active in promoting social justice by empowering learners (Giroux & Giroux, 2008; Grande, 2004). Based upon his experiences teaching Brazilian peasant workers, Paulo Freire (1970) posited that education was a means by which marginalized individuals could challenge and even overcome oppression, theorizing a *pedagogy of the oppressed*. Freire explained:

This pedagogy makes oppression and its causes objects of reflection by the oppressed, and from that reflection, will come their necessary engagement in the struggle for their

liberation.... The pedagogy of the oppressed is an instrument for their critical discovery that both they and their oppressors are manifestations of dehumanization. (p. 33)

Freire was critical of the “banking approach” to education, described as the one-way, unquestioned deposit of information from the expert teacher to the presumed empty mental container of the learner (Freeman & Vasconcelos, 2010). Such a view holds learners as passive; critical pedagogy emphasizes the active empowerment of the learner. Through the development of conscientização, translated as “critical consciousness”, the learner is empowered to challenge an oppressive status quo and see him- or herself as an active agent in society (Freeman & Vasconcelos, 2010, p. 13). Furthermore, Freire (1970) called for more than a theoretical discourse, but emphasized the importance of *praxis*, that is, critical action derived from critical theory, stating:

The task of the humanists is to see that the oppressed become aware of the fact that as dual beings, ‘housing’ the oppressors within themselves, they cannot be truly human.... Utilizing certain basic contradictions, we must post this existential, concrete, present situation to the people as a problem which challenges them and requires a response – not just at the intellectual level, but at the level of action. (pp. 84 – 85)

Although critical theory created a space for diverse and disenfranchised voices to enter the discourse on education, early critical theorists failed to fully address the concerns and interests of women and people of color (Grande, 2004). Critical theory was largely tied to certain Western epistemological frames as the method by which social structures are interrogated, including rationalism, which excludes “socially constructed irrational Others – women, people of color, nature, aesthetics” (Ellsworth, 1989, p. 305). Freire recognized this limitation and cautioned educators not to lose sight of their liberatory mission (Davis, 2001, p.

25). “They forget that their fundamental objective is to fight alongside the people for recovery of the people’s stolen humanity, not to win the people over to their side” (Freire, 1970, p. 76).

As further challenge to White, male hegemony and its oppressive kin, new social theories emerged from the perspectives of the excluded, including feminist theory, queer theory, and more recently, Red pedagogy (Ellsworth, 1989; Grande, 2004).

Sandy Grande (2004) coined the term “Red pedagogy” to describe an Indigenous approach to revolutionary critical theory. In her own words, Red pedagogy is “an indigenous pedagogy that operates at the crossroads of Western theory – specifically critical pedagogy – and indigenous knowledge” (Grande, 2008, p. 234). Red pedagogy is based upon some of the tenets of revolutionary critical theory, but privileges particular Indigenous pedagogies and views about democracy, the nature of knowledge, of place and the sacred (Grande, 2008). Grande outlined the core tenets of revolutionary critical pedagogy, based upon the writings of McLaren and Farahmandpur (2001), pertaining to the foundation of Red pedagogy, including:

- Recognition that capitalism is most successfully interrogated by those exploited by it;
- The use of materialist theory to examine class conflict;
- The adaptation of Marxist theory in the interests of critical education;
- Recognition of the limitations and Western aspects of Marxist theory;
- Commitment to a collective process, utilizing a Freirian dialogical learning approach;
- On-going critique of the exploitation and oppression created by classism based upon capitalism;
- Commitment to continued grass-roots participation from community members; and,
- The use of creative elements, including dance, oral history, and music, to raise critical consciousness (p. 237).

Grande (2008) asserted that Red pedagogy provided a vehicle for reclaiming educational sovereignty for Indigenous learners in a way that modern multicultural education has not. “For teachers and students, this means that we must be willing to act as agents of transgression, posing critical questions and engaging in dangerous discourse” (Grande, 2008, p. 250). It is important to understand, however, that Red pedagogy is not simply a reinterpretation of revolutionary critical pedagogy, which still retains aspects of Western epistemology, but must be based upon a marriage of the revolutionary theory with an Indigenous orientation to education, *taken together with* the larger project of social reform (Grande, 2008, p. 235). Red pedagogy is a decolonizing pedagogy, and Grande outlined seven precepts that define it:

1. Red pedagogy is political, cultural, spiritual, and intellectual;
2. Red pedagogy is rooted in Indigenous knowledge and praxis as ways of analyzing and understanding colonization;
3. Red pedagogy is informed by critical theories insofar as they provide a theoretical foundation for social interrogation;
4. Red pedagogy promotes decolonization, through active engagement with equity, emancipation, sovereignty and balance;
5. Red pedagogy interrogates hegemonic definitions of democracy and sovereignty;
6. Red pedagogy cultivates transcultural and transnational solidarities among Indigenous peoples; and,
7. Red pedagogy is a pedagogy of hope, based upon the confidence of the people to preserve, celebrate and transform Indigenous culture (p. 250).

Grande further explained that Red pedagogy “speaks to our collective need to decolonize, to push back against empire, and to reclaim what it means to be a people of sovereign mind and

body” (p. 250). From this position, educators and scholars can begin to interrogate and decolonize both educational practice, and the auxiliary fields that have come to serve the modern educational project, including instructional technology.

Culture and Instructional Technology

The dawn of the information age revolutionized nearly all aspects of modern living in the West. The Internet swept away every pre-existing technology adoption record to become an almost overnight, ubiquitous force (Joo, 1999). Information technologies, especially computers and the Internet, are utilized in nearly every sector of human activity in the Western world including education (Rovai, Ponton & Baker, 2008). Educators have become particularly convinced of the power of information technology to revolutionize learning and dramatically change education for the better (Albirini, 2006; Joo, 1999). As has been previously discussed, education is not a culturally neutral endeavor and has been used as an agent of colonization with regard to Indigenous peoples. The increasing use of information technology in service of education has fueled concerns about an emerging “digital divide” separating those who could access information technology from those who could not and the resulting potential for further globalized hegemony (Feenberg, 2005; Rovai, et al., 2008; Soudien, 2002). As stated by Feenberg (1991):

What human beings are and will become is decided in the shape of our tools no less than in the action of statesmen and political movements. The design of technology is then an ontological decision fraught with political consequences. The exclusion of the vast majority from participation in this decision is the underlying cause of many of our problems. (p. 3)

Ess (2002) described “computer-mediated colonization” as the assumption that all peoples think and communicate in ways that are supported and celebrated by technology (p. 232). Technology can be further leveraged as a colonizing agent when married with commercialization, as consumerist relationships between people and information are enforced (Ess, 2002). For example, digital readers provide ready access to vast libraries of literary and media content but are also bundled together with proprietary eCommerce software. Lauzon (1999) similarly contended that education was harnessed by Western societies as a powerful tool in furthering the modern ideals of *progress* and *individualism* as realized through global capitalism (p. 267). If market forces drive educational systems, those with economic and political power shape the form and nature of education (Lauzon, 1999). By extension, educational technology also serves this agenda. As explained by Lauzon:

Education is adopting the language of the market and hence educational problems are defined in terms of productivity and efficiency. Educational technology is then cast as the means to realize these goals. Hence, educational technology as defined in this context, serves economic globalization and the interests of the elite. Thus the community of practice known as educational technology serves, either explicitly or implicitly, the political and educational agenda of those with a vested interest in advancing the agenda of economic globalization. (p. 267)

Early theorists asserted that the Internet was a multicultural utopia, where all voices could be heard and all perspectives could be represented, where people could network and communicate across boundaries and borders (Ess, 2002; Grasmuck, et al., 2009; Rovai, et al., 2008). Later research suggested that technology was not culturally neutral, but that culture plays a role in attitudes and views about technology, as well as its adoption and use (Albirini, 2006).

Culture has often been an ignored factor in terms of design and implementation, despite the fact that cultural conditions affect every aspect of human action (Albirini, 2006). Consequently, minority voices are potentially marginalized and silenced by the communication norms that privileged Western discourse (Grasmuck, et al., 2009). Culture also influences learners' perceptions and experiences in e-learning environments (Jones, Johnson-Yale, Millermaier, & Pérez, 2009; Shapiro & Hughes, 2010; Taylor, Jowi, Schreier, & Bertelsen, 2011; Vatrappu, 2008). Learning environments that emphasize competition, individual accomplishment, and direct communication styles privilege dominant cultural orientations (Rovai, et al., 2008, p. 30). When integrated into educational settings led by educators employing dominant culture teaching strategies, information technology use may further silence or marginalize minority voices (Rovai, et al., 2008).

Some researchers in the fields of business and communication endeavored to quantify culture in order to conduct empirical research (Wang & Reeves, 2007). Hall and Hall (1990), in their study of the communication differences among French, German and American business professionals, asserted that there are common threads that run across cultures. Hall and Hall likened culture to computers in terms of how culture provides a complex control mechanism for governing the actions and responses of people in every aspect of life. The researchers further explained that like a computer, errors occur when the wrong inputs are given, as in the case of persons from one culture attempting unsuccessfully to act in another culture. Hall and Hall identified context as particularly salient in terms of intercultural communication; context refers to all of the information associated with an event that contribute to meaning (p. 6). They distinguished cultural preferences as either high context or low context. High context cultures, including those of Asian and Middle-Eastern origin, rely heavily on interpersonal and situational

awareness, relationships and non-verbal cues to supply the nuances and details in communication exchanges, rather than the explicit information of the message itself (Hall & Hall, 1990, p. 6). Low context cultures, including Americans and those of Northern European origin, rely upon and expect messages to be self-contained and explicit in terms of supplying all information necessary to make meaning (Hall & Hall, 1990, p. 7). The text-based nature of the majority of digital interactions, such as email, texting, and online posting, supports low-context communication styles and preferences (Rovai, et al., 2008). Hall and Hall (1990) posited that interactions between those of low-context and high-context cultural viewpoints can become contentious when either too much or too little information to satisfy both parties was exchanged (p. 9). Hall and Hall also discussed differing cultural approaches to time and contrasted monochronic and polychronic cultures. Monochronic cultures view time as linear and nearly tangible, describing time as a resource that can be saved, wasted, or otherwise physically managed (Hall & Hall, 1990, p. 13). Individuals from monochronic cultural orientations, including Americans and those of Northern European origin, value sequencing of events and tasks one at a time, and view violation of schedule as an offense (Hall & Hall, 1990, p. 14). Polychronic cultures view time in more relative terms, tolerating competing events and activities and placing a greater emphasis on the interactions and interrelationships among people than on schedule (Hall & Hall, 1990, p. 14). As might be surmised, Hall and Hall further asserted that interactions among those from monochronic cultures with those from polychronic cultures can become contentious when one party either violates or insists upon schedule or linear sequencing of events to the dismay of the other party (p. 16).

Hofstede (1994) also conducted empirical study on culture, via survey questionnaires, of the preferences of a large number of IBM employees representing 53 countries to identify salient

dimensions along which cultures varied. Hofstede identified five major dimensions of difference:

1. *Power distance*, defined as the extent to which individuals expect and tolerate unequal authority within an organization;
2. *Individualism versus collectivism*, defined as either a preference for individual independence or the view that group loyalty and relationship are most significant;
3. *Masculinity versus femininity*, describing masculinity as assertiveness, performance and competition, and femininity as attention to interpersonal relationships, empathy and quality of life;
4. *Uncertainty avoidance*, defined as preference for or against structure and rigidity in situations and environments; and,
5. *Long-term orientation versus short-term orientation*, described as an orientation to the future or the present, with a preference for thrift and perseverance over respect for tradition and fulfilling social expectations.

Numerous researchers have used Hofstede's work as a framework for their own research (Wang & Reeves, 2007). In one such study, Straub, Keil, and Brenner (1997) used Hofstede's four culturally-defined dimensions of technology use – power distance, degree of individualism, uncertainty avoidance, and masculinity – to test the applicability of the Technology Acceptance Model (TAM). TAM was developed as a useful tool for “predicting whether users will adopt new information technologies” (Straub, et al., 1997, p. 1). The researchers were concerned that the applicability of TAM might be limited to North America and sought to test its global utility for predicting technology acceptance in three different countries: Japan, Switzerland, and the United States. Straub et al. (1997) utilized Hofstede's dimensions as the basis for a scale that

provided a way to mathematically index participant responses to the pre- and post-test instruments concerning use of email. Participants were information technology workers in one of three corporate firms. They found that TAM appeared applicable and did provide an explanation for information technology adoption in American and Swiss cases, but not in Japanese cases, possibly related to the Western orientation of the model (Straub, et al., 1997, p. 9). They recommended further research concerning adoption of information technology in other non-Western cultural contexts (Straub, et al., 1997, p. 9).

Hofstede's work has been criticized as essentialist and binary; the operationalization of cultural constructs along dichotomous lines may be oversimplified and fail to account for other salient factors in research (Ess & Sudweeks, 2006). Nevertheless, Hofstede's work did provide evidence that cultural differences do exist and can be taken into account with regard to technologically mediated environments (Ess & Sudweeks, 2006; Liu, Liu, Lee, & Magjuka, 2010; Wang & Reeves, 2007).

There is little empirical research regarding the significance of cultural difference specifically within the context of e-learning environments, and what does exist, comes from Western research paradigms (Edmundson, 2007a). Early work by cognitive psychologists, Witkin and Goodenough (1981), has been appropriated with regard to understanding about cultural differences and instructional technology. Witkin and Goodenough examined perceptual differences among individuals, who were asked to accurately determine physical orientation in space through the use of vision and the sense of gravity. The researchers identified "field dependence – independence as an expression of the extent of differentiation of an individual's psychological structure" (Witkin & Goodenough, 1981, p. 3). Field dependent individuals tended to operate with respect to the external visual field, whereas field independent individuals

tended to operate with respect to their own bodies (Witkin & Goodenough, 1981). They further extended their study to examine other personality differences, including degree of individualism and interpersonal preferences. As applied in education, field independent learners were oriented to knowledge as a collection of discrete units of information that can be represented independently and in the abstract (Witkin & Goodenough, 1981). Digital technologies are designed to manipulate mathematical data as representations of many types of human wisdom, privileging the Western preference for field independence, based on the values of empiricism and objectivity.

Chen et al. (1999) conducted a study of three cases of computer-mediated learning systems in Singapore and found that Singaporean learners had particular preferences with regard to communication in anonymous online environments. Differences in preferences, however, should not be confused with differences in the quality of learning (Vatrapu, 2008). Vatrapu's (2008) review of the literature concerning the intersections of culture and information technologies suggested that culture influenced social behavior, cognitive processes, and human-computer interaction, including interface design preferences, perceptions of usability, communication styles and approaches to online learning (p. 5). Vatrapu's own empirical study comparing the use of e-learning technology of Chinese students with American peers revealed that, although the two varied in terms of how they approached the learning environment and had differing communication preferences, both realized equal benefit and levels of mastery with regard to learning outcomes. Vatrapu recommended that educators and technology designers pay particular attention to these types of differing preferences of learners.

Despite the lack of empirical evidence, education researchers have begun to develop theoretical approaches to instructional technology that consider culture with regard to various

aspects of the learning environment (Wang & Reeves, 2007). Several are further discussed here.

Joo (1999) suggested several considerations regarding the use of Internet content in the classroom that are mitigated by culture. These included:

- The content of the materials, which vary dramatically across cultures, in terms of what is considered acceptable;
- The power of multimedia, especially to supplant other information or reinforce stereotypes;
- The use of writing styles, which are derived both from the language of origin and the tone considered appropriate;
- The use of writing structures, which are based upon the epistemological nature of argument and logic, embedded in cultural perspectives; and,
- The design of media, such as graphic layout and visual appeal, also heavily embedded in cultural context (Joo, 1999, pp. 248 – 249).

Collis (1999) identified seven “dimensions sensitive to culture-related differences in terms of acceptance, use and impact of computer-related learning resources” (p. 207). These seven dimensions were described as follows:

1. Group dynamics, including size, proximity, and nature and type of collaboration among participants;
2. Pedagogic philosophy, including subject discipline, the nature of learning, and communication of content;
3. Language, including design of the user interface;
4. Infrastructure differences, including access and technological skill;

5. Roles and responsibilities of participants;
6. Human-computer interaction, including support, interaction, expectations and preferences; and,
7. Institutional aspects, including administrative policies and operational demands (Collis, 1999, p. 207).

Johari, Bentley, Tinney and Chia (2005) discussed eight areas of interest with regard to culture in technologically mediated learning environments that may vary between two or more cultural orientations, termed “value differentials” (p. 118). The value differentials were identified as follows:

1. Language differential – Language embodies culture and neither can be considered separately. In online learning environments, simple sentence structure and avoidance of colloquialisms are good practices;
2. Educational culture differential – Education is valued differently across cultures, and should be taken into account by educators in intercultural settings;
3. Technical infrastructure differential – Not all learners have equal access to infrastructure, including hardware, software, or Internet connectivity;
4. Local versus global differential – Some cultures preference a local context, while others prefer a global perspective;
5. Learning style differential – Since learning and culture are mutually oriented, educational approaches will not empower students from differing cultures equally;
6. Reasoning pattern differential – Reasoning and logic vary across cultures, including preferences for linear or circular thinking to make meaning. In online learning environments, text without context or setting can limit learning;

7. High- and low-context differential – Based upon the previously discussed work of Hall and Hall (1990), some cultures consider information as discrete and others have greater affinity for context and the relationship among ideas; and,
8. Social context differential – Cultural groups vary in terms of the significance placed on the social context in which information is presented, based upon orientation to high- or low-context preferences (Johari, et al., 2005, pp. 119 – 122).

Shapiro and Hughes (2010) discussed the adoption of a neohumanist paradigm for the development of technology-mediated learning environments, encompassing a democratic ideology. They explained that privileging the experiences and needs of the learner to create a learner-centered educational environment is the central focus of the neohumanist paradigm. The components of the paradigm included:

- Mindful interaction, wherein participants reflect on their own perspectives and roles in the learning community;
- Unforced consensus, emphasizing the respectful and equitable processes of coming to mutual agreements among community members relative to communication norms in the learning environment;
- Recognition of political and social power structures within the educational environment, and;
- Active identification of repression and hegemony as part of the creation and maintenance of an egalitarian, democratic environment (Shapiro & Hughes, 2010).

Collectively, these various theoretical approaches provide multiple lenses through which educational practitioners may consider the learning environment in order to promote social

justice and equity in Western classrooms. These approaches were not derived from Indigenous contexts or epistemologies, and thus, may not be fully salient in such educational environments.

Decolonizing Instructional Design

If instructional technologies are then to be tools of empowerment, they must be designed and used in ways that are culturally relevant to learners (Ess, 2002, p. 241). Increasingly, the field of instructional technology has come to be identified with the field of instructional design, specifically computer-based technologies, with the growing ubiquity of computers in school settings (Reiser, 2001a,b). Instructional design, also called instructional systems design (ISD), is a systematic process of structuring and planning all aspects of the learning environment, including the analysis, design, development, implementation, and evaluation of the instructional content, processes and outcomes, with the goal of optimizing learning (Mager, 2008; Reiser, 2001a; Williams-Green, et al., 1997). Instructional designers utilize knowledge of pedagogical principles together with technical expertise and systematic procedures to inform their design practice (Mager, 2008; Reiser, 2001a,b). Pedagogical principles, in turn, are oriented to particular epistemological viewpoints within a cultural framework (McLoughlin, 1999). Furthermore, instructional design practitioners are, themselves, steeped in a personal cultural frame of reference, which is likely, consciously or unconsciously embedded in their design practice (Williams-Green, et al., 1997, p. 4). The growing awareness of the implications of culturally sensitive approaches to e-learning environments discussed above has, by extension, raised concern about the general lack of substantial preparation for and consideration of cultural factors within instructional design models (Kinuthia, 2009; Williams-Green, et al., 1997).

The field of instructional design was founded upon the pedagogies of the West, (Reiser, 2001a,b). Instructional design emerged as a formal discipline following World War II and the

effort to train masses of people in standardized modes (Reiser, 2001a,b). ISD grew out of the field of psychology and the interest in the processes of learning as an aspect of the science of the mind (Reiser, 2001b). Early theorists, including B.F. Skinner, were positioned as behaviorists (Reiser, 2001b). According to behaviorist theory, learning is “the conditioned response to external stimuli” (James, 2006, p. 54). In accord with behaviorism, an ideal learning environment emphasized the proper sequencing of instruction, combined with repeated opportunities for the learner to practice skills until mastery was achieved (James, 2006). During the 1960s and 1970s, cognitivist and constructivist theorists predominated the field of ISD, including Gagne, Glaser, Mager, Dick and Carey, Merrill, and Scriven, who formalized their theories into structured models for the design of learning environments (Reiser, 2001b). Cognitivists have a broader view of learning than behaviorists (Smaldino, Lowther & Russell, 2008, p. 11). Cognitivists held that “learning requires active engagement,” (James, 2006, p. 55) and was the result of the incorporation of ideas into one’s own mental framework (Smaldino, et al., 2008, p. 11). Constructivists extended this idea and suggested these mental processes occurred as the result of experiences as learners interacted with others and the environment or context of learning (James, 2006, p. 56; Smaldino, et al., 2008, p. 11). The ISD models derived from these latter cognitivist and constructivist theorists form the basis of introductory curricula in instructional design at most universities today (Sink, 2008; Reiser, 2001b).

Metaphorically speaking, instructional design models are often akin to detailed patterns for the design of high-quality learning environments. Instructional design models both inform the educational training of novice instructional designers and provide the theoretical framework by which experienced instructional designers operate. Today, there are many more dozens of models from which instructional design practitioners can choose, and although diverse in terms

of the sequencing, prioritization and iteration of steps, these models generally feature five common components:

- An analysis phase to identify learner needs, environmental factors, goals or objectives, and the nature of the subject of interest;
- A design phase wherein decisions are made concerning mode, medium, and format;
- A development phase from which products are tangibly built, made or tested;
- An implementation phase, during which time learners come into contact with the learning environment; and,
- An evaluation phase to determine if or how the process, product and/or learners were successful (Sink, 2008).

Few instructional design models formally address cultural context, however (Williams-Green, et al., 1997; McLoughlin, 2000). Kinuthia (2009) asserted that without effective models for practice, instructional designers, even veteran practitioners, then may lack the necessary knowledge and skills to address culture. “Instructional design has failed to adequately integrate race, class, gender, ethnicity, and nationality in relation to learning in technology-mediated learning environments” (Kinuthia, 2009, p. 269). Instructional design practitioners and researchers lack guiding models or frameworks to integrate culture into the design process (Young, 2008, p. 7). Instructional designers typically overlook culture as a significant factor in design processes because: (a) individual practitioners may not be aware of personal cultural biases, (b) inclusion of cultural content may be identified with the dominant culture, (c) engagement across cultures can be a source of conflict, (d) accepted educational paradigms may not afford cultural diversity, and (e) literary approaches cannot fully convey oral knowledge forms central to some cultures (Kinuthia, 2009, p. 267).

According to Henderson (1996) most instructional design models can be characterized according to one of three cultural context paradigms:

- *Deracialized paradigm* – negates the need for cultural sensitivity by asserting that all learners have similar needs and orientations. The core limitation of this paradigm is the overt emphasis on dominant culture norms and the marginalization of others (p. 89);
- *Inclusive or perspectives paradigm* – incorporates social, historical, or cultural perspectives of minority groups, but delivers instruction according to Western pedagogies, and is thus superficial. The limitations of this paradigm include essentialism, tokenism, and romanticized others (p. 91); and,
- *Inverted curriculum paradigm* – privileges minority pedagogies to the exclusion of dominant culture pedagogies, consequently creating barriers for learners in terms of access to dominant culture. The limitations of this paradigm include the inability to address diverse cognitive needs and potential equity in learning outcomes (p. 93).

Williams-Green et al. (1997) asserted that culture should, in fact, inform every decision point of the instructional design process, including selection of goals and objectives, selection of instructional strategies, media, pacing, scope and sequence, interpersonal grouping, and assessment and evaluation (p. 9). Educators should avoid thinking of culture as an object that is possessed but as an integral part of being (Chen, et al., 1999). Not only is the cultural relevance of the instructional design model at issue, but also the practice of the instructional designer. Culture cannot be considered in the design of the learning environment as simply another component or object that is plugged into the system; culture is the viewpoint that guides the entire approach to, orientation of, and interaction with the learning environment, influencing everything from visual appearance to the nature of the content and the activity contained therein

(Chen, et al., 1999). Kinuthia (2009) further cautioned against considering culture as simply another factor on an instructional design checklist, and stated “knowledge and information is embedded within a historical, cultural, and social framework, and communication should then be viewed as an exchange of ideas through symbols that are themselves embedded within this framework” (p. 268). Culturally sensitive instructional design goes beyond just the application of technological tools to include other serious considerations including relevant psychological, pedagogical and pragmatic issues (Chen, et al., 1999). Kinuthia (2009) urged instructional design practitioners to become “students of their own classrooms” in order to gain understanding of local cultural contexts (p. 268). Cultural competence training for instructional design practitioners must be considered as a key factor in moving the field of instructional design towards more socially just practice. “Issues of race, gender, ethnicity, culture, and social class are all inextricably linked [to] instruction and both teacher education and instructional design programs should be in a position to prepare their learners to understand these contexts” (Kinuthia, 2009, p. 276).

McLoughlin and Oliver (2000) did consider culture in their own instructional design practices and published ten design principles for culturally inclusive instructional design.

McLoughlin and Oliver recommended that instructional designers:

1. Adopt a constructivist educational epistemology to accommodate multiple perspectives;
2. Design authentic learning activities situated in the realities of the learner;
3. Use flexible tasks and tools for knowledge sharing, including collaborative and democratic roles and communication;

4. Include different forms of support, academic and technical, within and outside the immediate learning environment, to include the adoption of a “community of practice” approach that engages peers, Elders, and community members;
5. Facilitate flexible and responsive student roles and responsibilities, that include clear expectations, navigation features that allow for free exploration, and guided technology support;
6. Use collaborative and social media features to facilitate collaboration;
7. Use learning tasks that provide for a mix of self-direction and ownership along with collaboration, including some self-selection from a menu of choices;
8. Include flexible, responsive tutoring and mentoring roles;
9. Provide access to varied resources to assure multiple perspectives; and,
10. Provide flexibility in learning goals, outcomes and modes of assessment.

Multiple Cultures Model (MCM)

Some instructional design theorists have formally developed culturally oriented instructional design models. Henderson (1996, 2007) developed the *multiple cultures model* (MCM) of instructional design, which combined multiple ways of teaching and learning with both minority and dominant culture perspectives. Henderson (2007) was critical of the general failure of instructional design practitioners to adequately address cultural perspectives, often resulting in either tokenism through superficial treatment of issues or stereotyping of cultural perspectives as simplified absolutes (p. 132). Henderson distinguished *multiple culturalism* from *multiculturalism*. Multiculturalism in learning environments frequently manifests as superficial Western representations of the target culture through content integration, including holiday observances, traditional cuisine, or ethnic dress. Multiple culturalism, by contrast, includes also

the cognitive aspects of the learning environment. The implementation of MCM privileges the target culture's epistemology to analyze the cognitive aspects of the learning environment and guide the adoption of sound pedagogic practices that address multiple, not essentialized, cultural perspectives (Henderson, 2007). In other words, MCM goes beyond content integration to include also pedagogical orientation. Henderson (1996) identified 14 dimensions of online courses, represented as continuums comprised of dichotomous pairs, which are significant with respect to cultural orientation:

1. Epistemology: objectivism versus constructivism;
2. Pedagogical philosophy: instructivist versus constructivist;
3. Underlying psychology: behavioral versus cognitive;
4. Goal orientation: sharply-focused versus unfocused;
5. Instructional sequencing: reductionist versus constructivist;
6. Experiential value: abstract versus concrete;
7. Role of the instructor: teacher proof versus equalitarian facilitator;
8. Value of errors: errorless learning versus learning from experience;
9. Learner motivation: extrinsic versus intrinsic;
10. Course structure: high versus low;
11. Accommodation of individual differences: non-existent versus multifaceted;
12. Learner control: non-existent versus unrestricted;
13. User activity: mathemagenic (according to pre-specified objectives) versus generative (according to the choices and preferences of learners);
14. Cooperative learning: unsupported versus integral (p. 96).

Henderson (2007) cautioned against essentializing target culture learners and recommended blending both Western and target cultural modes in the selection of learning activities and instructional media, and the roles assigned to teachers and learners in order to accommodate diverse preferences (p. 141).

Henderson's (2007) model has been applied with success by a number of instructional designers operating in various cultural contexts, including Indigenous Australian learning programs sponsored by Australian universities. MCM presents two significant strengths: (a) the model was developed in the context of a teacher education program for Aboriginal students in a dominant culture institution, thus, it is informed in part by Aboriginal cultural values; and, (b) the model advocates the interrogation of cultural context in all facets of both the course and the larger educational context surrounding it. While MCM provides a useful framework for theoretical practice, novice instructional designers will not find sequential steps or rubrics for application in practice. Henderson (2007) herself addressed this limitation in a later study by describing its use in a case-study.

Third Dimension Model

Thomas, Mitchell, and Joseph (2002) developed the Third Dimension Model to address the limitations in ADDIE, a classical instructional design model that includes five phases: analysis, design, development, implementation, and evaluation. They added the dimension of culture to ADDIE to address model's deficits. The third dimension is comprised of three aspects: (a) Intention, described as the purposeful attention to and addition of culturally specific and relevant features through each phase of the process; (b) Interaction, described as the inclusion of end users into the design team, which typically only includes the instructional designer and a content expert, to inform the design process; and, (c) Introspection, described as

the purposeful reflection on the part of the instructional designer about his or her own role and actions in the design process (Thomas, et al., 2002, pp. 42 – 44). A strength of the Third Dimension Model is the directive to include informants (those who represent the target culture) in the design process, but it is also limited by the lack of specificity to guide novice instructional designers.

Cultural Adaptation Model

Edmundson (2007b) recently developed the cultural adaptation (CAP) model as an outgrowth of an academic study of non-Western learner outcomes in a Western online course environment. The CAP model is complex and designed for use with pre-existing online courses, and guides instructional designers through analysis of both the course itself and the characteristics of the learner for whom the course is targeted. Course characteristics are analyzed according a simplified rubric of course characteristics as developed by Henderson (1996) for the multiple cultures model (Edmundson, 2007b). Courses are rated by level, from Level 1, which indicates that only linguistic or minor content adjustments are needed to adapt the course for the target audience, to Level 4, indicating the necessity for total redesign. Learner characteristics are analyzed according to cultural dimensions identified by Hofstede (1994). The CAP model involves a five-step process. In the first step, content type and examples are determined and evaluated for cultural relevance. During step two, pedagogical paradigm, instructional methods and activities are determined and evaluated for cultural relevance. In step three, media and technologies are determined and evaluated for cultural relevance. The fourth step involves identification of critical cultural dimensions with regard to the target culture, which includes determination of preferred ways of learning, engagement with the learning environment, and expectations regarding participation and instructor roles. The fifth step includes

identification of assistive cross-cultural dimensions with regard to the target culture, which also includes identifying which aspects of the course design do or do not address the cultural dimensions identified in the previous steps.

A significant strength of the CAP model is its adaptability to a variety of cultural contexts and the intentional development of prescriptive steps to guide instructional designers who may not be familiar with the target culture (Edmundson, 2007b). Limitations of the model include the use of Hofstede's (1994) dimensions of culture and the lack of explicit inclusion of native informants in the determination of target cultural preferences.

Although all of these models suggest promising ways in which instructional design may be more culturally appropriate, none of these models was developed *within or from* Indigenous pedagogies or through the work of Indigenous educators and technologists working in Indigenous educational systems. Although MCM, and aspects of the other models, may offer a useful theoretical base from which to proceed in Indigenous instructional design, these models proceed from Eurocentric paradigms of practice. The literature also does not address whether these models facilitate instructional design practices or protocols that empower Indigenous educators and learners or further the Red pedagogical project.

Nevertheless, Lauzon (1999) was optimistic about the possibilities for a more just instructional practice, engaging the concepts of critical pedagogy within the field of instructional design. Lauzon suggested that within the context of education, marginalized users may be empowered to leverage technology as a liberating tool, stating: "educational technology from the margins may not be perceived as liberating; in fact, it may be perceived as domesticating. Yet, I believe that under the right conditions, technology can be used to challenge and transgress borders" (p. 271). Ess (2002) challenged both the philosophical view of technological

instrumentalism and technological determinism and argued that some aspects of both philosophies are found empirically. Ess explained that technological instrumentalism holds that technology itself is “presumed neither to embed nor to foster any given set of ethical or cultural values” (p. 232). Therefore, such globalized venues such as the Internet, have tremendous democratizing power by giving voice equally (Ess, 2002, p. 232). Technological determinism, by contrast, argues that technologies emphasize implicit cultural values – in the case of the Internet, those of free speech and individualism – that overtly promote Western culture (Ess, 2002, p. 233). Ess explained that while empirical research has provided evidence technologies do in fact conform in design to the preferences of the designer, which are certainly culturally influenced, some users or groups may appropriate and leverage the technology in ways that are more supportive of a different cultural orientation (p. 234). Ess asserted that technology utilization can be purposeful and active, stating: “technologies do *not* simply reshape their users to conform with those embedded values and preferences. Rather, diverse peoples and cultures *are* capable of (re)designing systems more in keeping with their own cultural values and communicative preferences” (p. 234).

Leveraging Technology for Indigenous Education

As discussed, the integration of technology into the learning environment is not culturally neutral, but mitigated by the cultural perspectives of the designers and instructors and context within which the course is conducted. Furthermore, there are few instructional design models that inform culturally relevant practice for those who would seek to create learning environments. Nevertheless, Indigenous communities have successfully fashioned information technology solutions to address community needs. Dyson, Hendriks and Grant (2007) outlined four ways that Indigenous peoples have leveraged information technology: (a) to support and

facilitate education, (b) to preserve and/or revitalize cultural heritage and languages, (c) to facilitate community transformation, and (d) to link communities and improve citizen access.

There are a large number of cases of Indigenous use of information technology in educational and other contexts to be found in the extant literature and several are herein discussed.

Information Technology for Indigenous Education

Utilizing an action research model, Kim (2008) studied migrant Indigenous farm workers and their children in several Latin American villages used mobile devices to receive on-demand literacy learning content. The study indicated that although many adult members of these communities had mobile phones, which were used less often to make phone calls, and more commonly for other common features (clocks, calculators, calendars and photo albums), the communities generally lacked any significant technological infrastructure. Within these communities, the researcher observed that multi-lingual adults who were also knowledgeable about their traditional habits of dress, dance, and history, conducted education informally and passed knowledge orally on to their children. The researcher hoped to determine if mobile devices might provide a powerful learning option for marginalized communities. In general, mobile devices are highly affordable, relatively powerful, and portable, and in places where Internet access and personal computing is unavailable or unattainable, mobile devices can provide technology access (Kim, 2008). The children in this study seemed to enjoy the mobile devices, featuring short stories and alphabet presentations; however, Kim identified several aspects of the devices that could have been improved. The learning content embedded within the devices used in the study was presented exclusively in Spanish, rather than in the language of the community. Furthermore, the mobile devices did not feature any artificial intelligence capabilities, so it was not possible to provide user-centered feedback or adjustment of content

based upon user input. Also problematic, the content did not employ any culturally relevant touchstones, such as traditional stories or characters, and included unfamiliar vocabulary words (microwave, skiing) that fell well outside of the children's experiences. Kim urged consideration of cultural sensitivity in the design of learning content, especially to guard against disruptive or offensive material. Battery life and the lack of electrical service in many communities was also an ongoing challenge with the devices used in this study. Electricity could be generated through hand-crank operation, but Kim found this was time-consuming and detracted from use, especially among young children (Kim, 2008). In very remote areas, battery life was an ongoing challenge. Furthermore, local technology companies, operating on a business model, lacked some incentive to serve such populations. While the study revealed that mobile learning in developing and underserved areas was promising, there were still numerous technological and cost-related challenges that needed to be overcome (Kim, 2008).

Haag and Coston (2002) described the implementation of a distance education program to teach the Choctaw language, sponsored by the Choctaw Nation of Oklahoma in 2000. This case was an example of a course that was designed and implemented according to a specific Indigenous (Choctaw) epistemology. The researchers described the Choctaw Nation as a highly organized Tribe with a long history of successful interactions with European, and later United States government authorities, despite historical periods of oppression and exploitation. The Choctaw Nation was subject to the Trail of Tears, Federal termination, and the boarding school policies, which were threats to the Choctaw cultural heritage (Haag & Coston, 2002). The language courses were taught in three phases. The first phase provided a historical and cultural introduction to Choctaw, centered around social meal gatherings, designed to promote cultural pride and reduce learner anxiety about the formal learning environment. The second phase

provided a basic introduction to the written form of the language, along with primary vocabulary. The third phase built vocabulary and sentence formation (Haag & Coston, 2002). The researchers further explained that initially, the courses were taught through telecourse, utilizing closed-circuit television broadcasting technology. Some regional universities also agreed to offer credit and sessions of the program were widely distributed across several communities. Although enthusiastically received, Haag and Coston found that myriad technological difficulties and cost were significant barriers to success. Furthermore, the course format failed to provide the kind of comprehensive support and guidance at remote sites that is necessary in any language learning endeavor. Haag and Coston also studied a second implementation of the program, which utilized early web-based video and audio (one-way), resulting in improved access and reduced cost issues. Nevertheless, the researchers found that the program required tremendous interpersonal and technical skill on the part of the instructor. Haag and Coston concluded that the results of this Choctaw community's investment on language instruction were: (a) an increased availability of cultural and language resources in the region, (b) resurgence of cultural interest, (c) expansion of language instruction among children in public schools in the region, (d) modernization of the Indigenous vocabulary to include new terminology, and (e) publication of additional literature. Furthermore, the program featured modern technology but was administered in unique ways that honored Choctaw values. Costs of the courses were borne by the community, not individual participants; grades and standardized assessments were not implemented, students were free to come in and out of course participation as desired, and pacing was directed toward the needs of each individual student. In contrast to dominant culture assessment structures, Haag and Coston described the prevailing pedagogy as "No one fails" (p. 81). Furthermore, the researchers found that despite the presence and availability of

technologies that facilitated distance communication, at some points along the course timeline, instructors made special effort to travel physically to the location of students for face-to-face interactions, as this kind of interaction was considered fundamentally necessary according to Choctaw culture. Additionally, the Choctaws practiced cultural openness by allowing anyone, including non-Indians, to enroll in the distance education courses (Haag & Coston, 2002). With the dramatic advance of newer technologies that allow for comprehensive, individualized engagement at reduced cost, one can only wonder at the outcomes that might now be able to be realized if this program study were repeated.

Information Technology for Indigenous Culture and Languages

A large number of cases documented the application of information technology to the project of preserving or reinvigorating Indigenous cultural knowledge and languages. Some of the benefits and challenges are discussed.

Cultural preservation. Information technology is the driving factor behind the new global economy; those that have the best access to it are considered advantaged (Page & Hill, 2008). Access to information technology remains highly disparate, both globally and domestically (Page & Hill, 2008). Indigenous knowledge (IK) is “local or traditional knowledge that indigenous people have brought down with them from earlier times via the oral tradition” (Sen, 2005; p. 375). Indigenous communities are particularly concerned with the proper balance between traditional lifeways and engagement with the larger world (Page & Hill, 2008). Modern information technologies can and should be used to document IK, as a form of protection from Western piracy (Sen, 2005). For example, as discussed by Sen (2005), a number of biological discoveries have been made by Western researchers utilizing plants or genetic materials found in and used by developing or Indigenous communities, which ultimately results in a privately held

patent for the Western researcher, despite the Indigenous origin of the knowledge. Sen explained that Western patent laws and intellectual property laws favor individual ownership and are expensive to gain and maintain. Nevertheless, documentation of IK could potentially protect Indigenous communities from exploitation by establishing IK as prior works, safe from claims of primacy by Western researchers (Sen, 2005).

Language preservation and revitalization. Villa (2002) reviewed some of the common challenges of language preservation faced by Indigenous communities. According to Villa, many of the tribal languages spoken in North America before European contact are gone or in danger of extinction. He further stated that in many cases, fluency is only held by those eldest members of the community, which will die with them. Furthermore, Villa explained that in the case of many Indigenous languages, written forms were created by non-Indigenous individuals, lacking the non-verbal aspects of language culture particular to oral cultures. Authentic usage of the language for instructional purposes may be particularly challenging where only written materials exist (Villa, 2002). Villa was optimistic that recent advances in digital technology has made live recording of voices and images easy and inexpensive; nevertheless, documentation requires the efforts of technologically knowledgeable individuals who know how to apply the technologies and store and index the resulting information. Technical training among Indigenous community members may empower them to document authentic uses of their Native tongues with particular sensitivity to relevant cultural issues, including sensitive aspects such as the sacred or restricted ceremonial kinds of information, without reliance on non-Indigenous intervention (Villa, 2002).

Jancewicz and MacKenzie (2002) reported that Native Cree and Naskapi speakers in Canada began using computers to produce texts with PC technology beginning in the early

1990s. According to the researchers, original programs had to be written to support the use of the syllabic orthographic system developed to depict these languages. Keyboards also had to be adapted and specialized typefaces were also invented (Jancewicz & MacKenzie, 2002).

Furthermore, the researchers found that native speakers were the most capable of providing technical support with regard to language documentation, which raised technical training challenges. More recent developments in digital word processing have allowed Native speakers to create instructional materials, public administrative documents, and translations of other literary works (Jancewicz & MacKenzie, 2002). The researchers also found that not only did this technical work act to preserve and activate community language use, the process of documentation also benefitted the individual people who participated in the language project. Furthermore, Native speakers who used computers for this work became more confident and fluent in their Native tongue (Jancewicz & MacKenzie, 2002).

Auld (2002) discussed the use of the computer in an Indigenous language learning program among the Kunib dji of Australia. In Auld's study, the computer is described as having three distinct roles:

1. Conjectural role – “the focus of the human-computer interaction is on the content available for people to evaluate critically” (p. 43);
2. Emancipatory role – the empowerment of the people who use it; and,
3. Collaborative role – the facilitation of human-to-human interaction.

Collaboration in this study was achieved, in part, by allowing students to work together to gather photos and ideas that were converted to digital picture books featuring narrative in the Native language, Ndj bbana. Emancipation was also attributed to the fact that communities members – adults and children – were in control of language instruction content through its creation, and as

technical skill grew, were able to engage in increasing application of the technology (Auld, 2002).

Benton (1992) documented another early example the use of information technology to document language by the Te Wahanga Kaupapa Maori of New Zealand. The Te Wahapû project had three main goals: (a) to document the language, (b) to build new vocabulary for modern phenomenon among active users, and (c) to engage native speakers to interact around their shared linguistic heritage. The Te Wahapû system featured navigation and graphic design in Maori language, with English available only in Help menus. The Te Wahapû system was considered empowering to Indigenous users because it went beyond mere Maori language presentation on screen, but actually functioned from the foundation of that language. “A computer which will respond in Maori but not to English is turning the world on its head in a way that is highly satisfactory to speakers of an indigenous language” (Benton, 1992, p. 21). One barrier to access was described as the dominant culture capitalist ideology of the need for transferring cost to individual users (Benton, 1992).

Warschauer (1998) studied the Hawaiian use of multimedia (computer and Internet) technology to revitalize and support indigenous language learning, at the request of the Hawaiian community. According to Warschauer, early in the relationship between the United States and Hawai’i, native speakers were quick to develop a literary form of the language and subsequently created a wealth of print materials, including newspapers and translations of religious texts. After statehood, native Hawaiian was outlawed; today, the language is spoken only by Elders who survived that era (Warschauer, 1998). Contemporary efforts to revitalize the language among youth have included successful integration of computer technology (Warschauer, 1998). As described by Warschauer, initial barriers to successful development and adoption of digital

technologies included the lack of relevant materials online, the lack of Internet access in many Hawaiian homes, and the need to adapt modern keyboards and fonts to support Hawaiian print. Warschauer described the Leokī software system as an early example of this effort and featured the native language not only in design but as a focus of content. The researcher indicated that teachers remarked that the media presented in the Leokī system was engaging and exciting for learners, while at the same time, the use of the language in the software made the language relevant. He further reported that students also used the technology to create their own language products, including written and multimedia works. The Leokī system was also used to link speakers and learners together via chat and email to broaden language peer networks, and emphasize the social aspects of learning which are important to the Indigenous community (Warschauer, 1998). Warschauer also noted that the use of the technology to facilitate student-centered work in the language, and connecting students to other learners in a larger virtual community of Hawaiian speakers, helped learners to build a stronger sense of cultural identity, and a greater commitment to their heritage.

While information technology provides a powerful tool for documenting and preserving languages and Elder wisdom, not all Indigenous peoples are enthusiastic about its application to traditional lifeways. Page and Hill (2008) documented one of the challenges for Indigenous communities is the prevention of electronic colonization in terms of pressure upon the youth to conform to the hegemonic norms represented in digital mediums. In their qualitative study on Indigenous use of information technology, one respondent indicated frustration about how youth were “no longer *living* the culture; they are merely *learning* about it” (p. 64). Another was optimistic about the role information technology could play in terms of empowering

communities to become more self-reliant and independent from external consultants and experts (Page & Hill, 2008).

Information Technology for Indigenous Community Transformation

Green-Barber (2008) described the use of information technology in Indigenous communities in Latin America to empower political action on the part of local citizens with respect to national government. She reported that information technology served many not only as a source of economic empowerment – through access to Internet services such as banking and commerce – but also as a tool for other kinds of empowerment, including physical and social well-being and increased political agency by connecting Indigenous communities and movements. Green-Barber further discovered that as Indigenous citizens became more aware of regional, national, or global politics and possibilities, they were empowered to mobilize and act. Furthermore, an increased flow of information also led to increased availability and access to health care and education as well, especially for isolated or impoverished communities (Green-Barber, 2008). Green-Barber explained:

In cases where new technologies were available and indigenous organizations were able to take command of and utilize these technologies, three mechanisms were able to occur—an increased access to information, the creation and perpetuation of Indigenous identities and culture, and a spread of international norms and discourse surrounding Indigenous rights. Through these three mechanisms, indigenous organizational and mobilizational capacity was increased, resulting in more successful movements. (p. 30)

Information Technology for Indigenous Access

Fiser and Clement (2009) described the Kuh-Ke-Nah Network (K-Net) as a telecommunications network that provided a variety of technology services to the majority of

First Nations communities in Ontario, Quebec, and Manitoba, Canada. K-Net provided broadband Internet access, technical consultation and support, web development, course management system administration, and video conference services. The network served a highly rural population, creating particular cost and infrastructure challenges, and was funded through collaborative efforts of national and local government and entrepreneurial funds. The network was administered by and under the auspices of the First Nations that it served. Furthermore, K-Net was operated on a non-profit basis: infrastructure is community-owned and services were provided according to a social equity model, in keeping with Aboriginal values. Fiser and Clement stated that K-Net “resembles a stripped down public utility with the moral character and business ethic of a lean social enterprise” (p. 26). Of particular note to the researchers was the fact that the system employed and was administered directly by the First Nations served, resulting in greater control, and eliminating the need for third party consultation. The research also indicated “that K-Net’s technical artifact, the broadband telecommunications network, reflects a compromise between the First Nations’ collective aspirations for local autonomy and the socio-economic realities of infrastructure partnerships in their territory’s remote high-cost serving areas” (Fiser & Clement, 2009, p. 26).

As part of their research, Fiser and Clement interviewed a number of system administrators and technicians who implemented the system and communities members who accessed it as part of the health care and education sector. In addition, the researchers utilized a participant observation methodology to observe daily operations, system upgrades and related administrative activity, at the behest of the initial sponsoring agency. Two key terms that emerged from their study were “relational governance” and “heterogeneous engineering” (p. 24). They defined relational governance as related to relationship building and trust among entities,

and identified it as a significant theme among participants. Heterogeneous engineering was defined as “the importance of jointly addressing technical and human factors throughout system design” and “portrays the embeddedness of human values in technical artifacts” (Fiser & Clement, 2009, pp. 25 – 26). Specifically, K-Net employed a small, closely knit team of engineers and researchers who shared ties with First Nation communities and a willingness to engage in self-directed learning and experimentation to address the particular needs of K-Net’s constituents (Fiser & Clement, 2009). The researchers indicated that the team was committed to “a steady and persistent drive to make technology work at the community level under collective ownership. This decentralized and collaborative approach to technology requires staff to be determined, flexible, patient, and inquisitive” (Fiser & Clement, 2009, p. 32). Fiser and Clement concluded that K-Net’s success was due, in part, to the particular way that the project had been implemented to operate with flexibility and attention to the needs of the communities served, together with the personal attributes of the K-Net staff.

Future Optimism

As has been described by these cases, there are several examples of ways in which technology has been used to serve Indigenous cultures and communities. Contrary to stereotypes of Indigenous peoples purely as societies of the past, Indigenous communities across the globe are leveraging technology to move into the 21st century. Dyson et al. (2007) summarized by writing:

Residing in their communities but linked to the outside world, [Indigenous peoples] will again become a vital part of the world community, sharing their culture and contributing their ancient ways of knowing to help solve the world’s many problems, for which Western science has been unable to find all of the answers. Information technology will

help them to become once more nations of respect, knowledge and cultural vigor. (p. 315)

Summary and Discussion

Education is a culturally entrenched endeavor that has historically been used as a tool for the colonization of Indigenous peoples. Nevertheless, in contemporary societies across the globe, Indigenous peoples are reclaiming their rights to sovereignty and self-determination, including the activity of educating tribal citizens. Tribal colleges are an institutional outgrowth of this movement. The successful decolonization of education calls for a critical Indigenous pedagogy, termed Red pedagogy, to both interrogate Western hegemony and empower learners to become active agents of reform for their communities.

Since the dawn of the information age, technology has come into the service of education. Although it was once considered controversial to suggest that the design and implementation of digital technology was inherently culturally biased, a decade of global adoption has proven otherwise. The intellectual artifact of the West, digital technology is steeped in a hegemonic epistemology emphasizing a positivist approach to knowledge and the supremacy of individualism. Taken together with the digital divide, this creates a global environment privileging Western culture. Instructional design is a systemic approach to the design learning environments, and typically includes the integration of technology in contemporary settings. Instructional design models are largely cut from the cloth of the Western pedagogical context, upon which Western systems of education are based. Thus, few models attend to cultural issues, suggesting systemic deficits for practicing instructional designers. Nevertheless, Indigenous communities have engaged with and leveraged information technology

to address various goals, although there is relatively little scholarship at present concerning a comprehensive theoretical basis from which educators and technologists might proceed.

A review of the literature concerning extant models of instructional design reveals that most instructional models consider the instructional design process *from the outside in*. As prescribed concerning the application of most models, the instructional design practitioner performs an analysis of the context, chooses an appropriate ISD model and *applies the model to the context* to produce outcomes. Thus, the vast majority of design models are external and impersonal and do not formally address the significance or consequence of the instructional design practitioners or instructional technologists *who are applying the model*. The implication is that the human actors who acting within the system are not at the core of the system, but entirely external to it. The implication is that those who interpret the contextual analyses, choose the model, and the way in which the model is applied are not of consequence to the system. There is a need to more carefully examine the system *from the inside out*.

CHAPTER 3: METHODOLOGY

Introduction

The purpose of this study was to investigate the instructional design practices in terms of cultural competence. In Chapter 1, I described how I utilized the star quilt as a metaphor to structure this study. Like any good quilt maker, I have chosen tools, or methods, which best suited the work. As previously discussed, this study proceeded from an Indigenous research methodology as it concerned Indigenous peoples. This chapter provides a discussion of the methods for data collection and analysis. Within this Indigenous methodological framework, I have chosen autoethnographic methods to provide an intimate window into the life of an instructional designer as a mechanism for reflection and critique, in order to address the primary research questions:

1. Do Indigenous educators perceive that information technologies are inherently colonizing?
2. In what ways are Indigenous educators leveraging information technologies to support Indigenous education, cultural preservation, community transformation, and increased access?
3. What are the implications for practitioners of instructional design in Indigenous educational contexts?

Background

The “Indian Problem”

Indigenous people have asserted that they are the most studied people on Earth (Tuhiwai Smith, 1999; Wilson, 2008). Research in Indian Country has historically been conducted by

non-Indians *on* and *about* Indians, rather than *by* and *for* Indians (Wilson, 2008). Maori scholar, Tuhiwai Smith (1999), explained:

It is an approach to indigenous peoples which still conveys a sense of innate superiority and an *overabundance of desire to bring progress* [emphasis added] into the lives of indigenous peoples – spiritually, intellectually, socially and economically. It is research which from indigenous perspectives ‘steals’ knowledge from others and then uses it to benefit the people who ‘stole’ it. (p. 56)

Research has often been used as a tool to further Western colonialism through researchers who have identified Indigenous cultures, defined and described them according to the scientific traditions of Western epistemology, and communicated those back to a non-Indigenous public (Tuhiwai Smith, 1999). White researchers asserted themselves as experts about the Indigenous “Other” and thus, defined who and what Indigenous people were, frequently without regard for whether or not tangible benefit or credit was conferred to those under study (Deloria, 1988; Tuhiwai Smith, 1999). As stated by Tuhiwai Smith (1999) “they came, they saw, they named, they claimed” (p. 80). The results historically have been depictions of various Indigenous groups as alternately and simultaneously savage and subhuman, innocent and childlike, mystical and highly spiritual, lazy and unproductive, noble and naïve (Deloria, 1988; Tuhiwai Smith, 1999; Wilson, 2008).

Although we live in a time now considered more enlightened, many contemporary studies on Indigenous peoples compare Indigenous contexts to Western contexts, according to Western criteria (Wilson, 2008; Tuhiwai Smith, 1999). Wilson (2008) explained that often studies “focus on negative aspects of life, as identified by researchers. In many of their conclusions, the studies identify ‘problems’ that are in need of further study” (p. 16). In

academic contexts, research proceeds from a problem-based approach (Creswell, 2008). A problem or issue is identified and methodical techniques are used to gather data, in order to identify factors and variables that pertain to a better understanding, and possible solution to or resolution of “the problem” (Creswell, 2008). One of the challenges of this approach with reference to Indigenous research is the underlying conception of the problem, often viewed from the reference point of deficit. Using humor, Deloria (1988) explained, “one of the finest things about being an Indian is that people are always interested in you and your ‘plight.’ Other groups have difficulties, predicaments, quandaries, problems, or troubles. Traditionally we Indians have had a ‘plight’” (p. 1). In a great majority of educational studies on Indigenous populations, this looks like treatises encompassing the failure of Indigenous learners to excel as compared with White peers or exposés about dysfunction in Indigenous educational systems (Wilson, 2008). Thus, research has become a foul word in many Indigenous communities as a result of the, albeit often unintentionally, destructive and oppressive roles that researchers and academics have played, and continue to play, in the exploitation, erosion, and eradication of Indigenous peoples and communities, in the name of so-called progress, opportunity, and democracy (Deloria, 1988; Tuhiwai Smith, 1999).

A Critique of Western Approaches to Indigenous Research

Historically, Western researchers have used anthropologic research methods study non-Western cultural groups (Merton, 1957). Anthropology has given rise to a number of methods that are now widely used across many disciplines, including education (Bernard, 2006). Merton (1957) described the five types of information that the cultural researcher should gather as part of his observation of the lifeways of a group under study:

1. The roles and interrelationships among community members, that is, the identity of each research participant in the context of the larger group (p. 56);
2. The characteristic patterns of behavior or action undertaken by group members (p. 57);
3. The meaning or perceived significance of an activity or activity pattern as expressed through feelings and experiences (p. 58);
4. The perceived motivations for action, both deviant and conformist (p. 59); and,
5. Extenuating behaviors or actions that are associated with the central action or pattern, which may not be even recognized by participants themselves (p. 60).

Inherent in this classical approach to cultural research, the researcher is positioned as the objective, central authority uniquely qualified to communicate a portrait of those under study back to a Western audience (Tuhiwai Smith, 1999). The central task of the researcher, then, is “lucidly presenting claims to logically interconnected and empirically confirmed propositions about the behavior of man [sic] in his relations with other men [sic], and the sociological consequences of that behavior” (Merton, 1957, p. 14). Furthermore, the concept of “going native” is viewed in a negative context: becoming like the objects of study is to lose the necessary objectivity to examine and know (Bernard, 2006). Such a view stands in strong contrast to the concept of being engaged and developing a relational approach based on collaborative and shared work in the community (Kovach, 2009; Kuokkanen, 2003; Wilson, 2008). Positivist claims to objectivity and scientific truth notwithstanding, how one engages with human research is directly affected by one’s beliefs and values about the nature of learning, study, and knowledge itself (Wilson, 2008). Therefore, research is an act of culture (Tuhiwai Smith, 1999).

Despite these strong critiques, I do not assert that the entirety of Western research paradigms are substantively irrelevant and invalid, nor am I attempting vilify all researchers as the worst kind of exploitive agents. After all, “tyrants of every generation have used any means, including any convenient epistemology or cosmology, to justify and further their despicable behavior” (Bernard, 2006, p. 20). In our modern era, Western empirical research has yielded dramatic, rapid, technological advances we might otherwise not wish to live without. Of particular concern in contemporary Indigenous contexts, however, are the whole host of accompanying methodological and analytical constructs that are part and parcel of the Western orientation to social science research, including:

- The “problematizing” of Indigenous society;
- The norming of Indigenous cultures and lifeways according to Western standards of thought, behavior, and values;
- The privileging of Western epistemologies to the exclusion of all others;
- The wholesale devaluation of Indigenous values, lifeways, knowledge and artifacts; and,
- The appropriation and exploitation of Indigenous knowledge and artifacts for non-Indigenous individual and commercial gain (Grande, 2004; Tuhiwai Smith, 1999; Wilson, 2008).

The use of Euro-centric models for research and education are inappropriate in Indigenous contexts (McClellan, et al., 2005a). Kuokkanen (2003) issued a call for increased hospitality in academe, meaning to not merely accommodate Indigenous views according to Western constructs, but to make space altogether for non-Western epistemologies. Kuokkanen further asserted that only in this way will true understanding be possible, and the opportunity to move away from colonialism to new relationships and social justice.

Setting an Indigenous Research Agenda

Indigenous people must lead Indigenous education (McClellan, et al., 2005a, p. 97). Indigenous communities need Indigenous peoples to direct and implement educational reform, including the arena of Indigenous research. “Indian professionals have a role and responsibility in defining what is best for us in Indian education” (Swisher, 1998, p. 197). Motivated by the exploitation of past research endeavors, and in response the on-going needs of Indigenous communities, Indigenous scholars have developed more culturally appropriate research methodologies, and championed the right to use them (Bowman, 2003; Wilson, 2008). The creation of Indigenous pedagogies and research methodologies has aided in the decolonization movement (Kuokkanen, 2003).

Elements of an Indigenous Research Design

This qualitative study employed an Indigenous research methodology. Indigenous scholars have identified key elements that typify an Indigenous research design.

Humility. Wilson (2008) described the importance of approaching the research endeavor with an attitude of humility with care to avoid the arrogant assertion of scholarly expertise. Tuhiwai Smith (1999) referred to the Maori sentiment “kaua e mahaki (don’t flaunt your knowledge)” (p. 120). As discussed, Indigenous communities have long experienced the misplaced intentions of self-described experts endeavoring to solve problems (Tuhiwai Smith, 1999).

Relationality. Relationality stems from the understanding that all creatures and wisdoms are interconnected and do not exist in isolation from one another (Aikenhead & Ogawa, 2007; Wilson, 2008). Wilson (2008) described aspects of relationality in the research process, including relationships among persons involved in the research process and the ideas that stem

from the process. Furthermore, out of relationality stems “relational accountability”, defined as the responsibility that the researcher has to be accountable to others (Wilson, 2008). In Indigenous communities, relationships, more than credentials, are a source of credibility and reputation (Tuhiwai Smith, 1999). As described by Tuhiwai Smith (1999), relationship forms a basis for ethical and respectful research practices and processes, through the recognition both of the individual’s place in the community, and the on-going reciprocal action to maintain relationship (p. 120). The use of first-person narrative to describe the researcher’s relationship to the community and to the research topic is also considered appropriate relational strategy in this context (Kovach, 2009).

Indigenous knowledge. Indigenous views regarding relationship and the nature of knowledge are interdependent. Wilson (2008) explained “knowledge cannot be owned or discovered but is merely a set of relationships that may be given a visible form” (p. 127). Aikenhead and Ogawa (2007) further explained that many Indigenous languages describe knowledge in terms of action: knowledge does not exist apart from people, because people actively gain wisdom through experience (p. 553). In other words, knowledge is not an abstract and objective entity in its own right, but is active, expressed through and by the action of people. As such, knowledge cannot be owned, but only shared (Aikenhead & Ogawa, 2007).

The Indigenous perspective also directly informs views of intellectual property. One aspect of Indigenous methodology includes the respectful use of traditional Indigenous sources of information, such as oral sources as communicated by Elders, published and unpublished literature, and interviews with community leaders, alongside of commonly accepted scholarly literature from Western academia (Bowman, 2003). Mihesuah (2003b) explained:

Indigenous communities must preserve their social, political, economic, and religious knowledge in order to pass it on to the next generations. They also must protect it from misuse by others. A tribe's traditional knowledge defines that community's uniqueness and explains its relation to the world. For Indigenous people, knowledge of the past is crucial for their identity growth and development, pride, problem-solving strategies, and cultural survival. Studying the Native past offers solutions to current problems such as food production, human and animal health, education, natural resource management, understanding treaty rights, and land claims and ultimately, is indispensable to keeping that culture alive. (p. 471)

Proper credit must be given to participants and informants who contribute to a finished work to avoid the perpetuating the concept of researcher as "discoverer" (Tuhiwai Smith, 1999, p. 174). Additionally, the outcomes of research activity must be shared in useful forms with those who have contributed to the process, and the larger community, preferably in face-to-face interaction (Kovach, 2009; Tuhiwai Smith, 1999; Wilson, 2008).

Emergent process. In the words of Wilson (2008) "if research doesn't change you as a person, then you haven't done it right" (p. 135). Qualitative research is a recursive, iterative and non-linear process. Relationships among participants and ideas emerge over time and are transformed through interaction (Wilson, 2008). Maxwell (2005) encouraged qualitative researchers to devise tentative research plans that could be amended as necessary (p. 81). Emergence in this context is not synonymous with haphazard or accidental, but does indicate openness and flexibility on the part of the researcher to new ideas and a willingness to respond to changing circumstances, as part of an on-going commitment to a humble, relational approach.

Ethical practice. Most tribal educational institutions have established protocols for gaining access to and conducting research within the community, derived from specific community values. Indigenous scholars have identified some considerations of ethical practice that must accompany research activities, in addition to or in contrast to the practices traditionally espoused by dominant culture institutions, upon which researchers should reflect and be able to address:

- The source of the identified topic of study as from the community or serving an outside interest;
- Examination and disclosure of the value of the study to the community and to the individual researcher;
- Mechanisms of accountability governing the researcher such as supervision by community Elders and those with whom the researcher holds relationships;
- Attention to building and maintaining respectful, reciprocal relationships;
- Processes of support that will benefit the researcher and participants; and,
- Recognition of potential negative research outcomes and careful planning to eliminate such outcomes (Kovach, 2009; Tuhiwai Smith, 1999; Wilson, 2008).

Procedures

With intention, this study proceeded from a substantially different basis with regard to the study of instructional design in Indigenous contexts. This qualitative study utilized an emergent Indigenous methodology informed by the theoretical frameworks of decolonization developed by Indigenous scholars Kovach (2009), Tuhiwai Smith (1999) and Wilson (2008). There were three areas of particular concern with regard to the Indigenous methodology for this study: (a) the

orientation of the investigation, (b) the ownership of the knowledge gained from the study, and (c) the use of the knowledge gained from the study.

Orientation

The emphasis of the study was not to identify the deficits in Indigenous adoption of information technologies or to compare how Indigenous institutions and educators implemented technology in contrast to peers at dominant culture institutions. Rather, an objective of this study was to describe the ways in which an Indigenous education community leveraged information technology as a mechanism by which to critique the skills and practices of the researcher, trained in Western methods of instructional design practice. Tuhiwai Smith (1999) described this type of an approach as “indigenizing,” defined as uniting critical approaches to research with Indigenous voices to reclaim or restore cultural action for the benefit of Indigenous people (p. 146). The goal was to identify instructional design practices that were culturally relevant in Indigenous educational contexts. In other words, the goal was not to view Indigenous educators or systems from a deficit framework, but to document: (a) the ways in which information technology was being utilized, integrated and leveraged by Indigenous educators to address locally defined, relevant educational goals; and, (b) perceived strengths or deficits of the professional practices of the instructional designer to support the former. Thus, the methods and procedures utilized in this study were intentionally derived from an Indigenous framework, because this study involved Indigenous people and concerns. Within this study, I positioned myself as an Indigenous woman and experienced instructional designer.

Ownership

Rather than engaging in efforts to gain knowledge on or about Indigenous peoples, this study was oriented to knowledge identification by and for Indigenous peoples. The goal was not

to identify what was wrong or what was needed in order for Indigenous institutions of higher education to make “proper use” of technology. Rather, the goal was to document the ways in which technology was supporting and empowering the institution, the learners, and by extension, the community. The focus was on documenting the ways in which technology was applied as relevant to locally identified educational goals. Furthermore, because the data came directly from the practice of the community, the knowledge that was derived belongs to the community.

Dissemination of Findings

An Indigenous research methodology not only governed the process used to examine issues and collect information, but also the ways in which resulting findings were utilized and shared. In keeping with the spirit of the methodology, the dissemination of findings included participants as key stakeholders, and findings were presented in forms that were useful and accessible (Kovach, 2009; Tuhiwai Smith, 1999; Wilson, 2008). Tuhiwai Smith (1999) explained:

I use the term “sharing knowledge” deliberately, rather than the term “sharing information” because to me the responsibility of researchers and academics is not simply to share surface information (pamphlet knowledge) but to share the theories and analyses which inform the way knowledge and information are constructed and represented. By taking this approach seriously it is possible to introduce communities and people who may have had little formal schooling to a wider world.... To assume in advance that people will not be interested in, or will not understand, the deeper issues is arrogant. The challenge is always to demystify, to decolonize. (p. 16)

Documentation was disseminated to community stakeholders both in written form, and through personal dialogue and presentation. On a community level, findings were shared in

written form and through face-to-face discussion, with community Elders, administrators and participants. This occurred through personal visits, as well as in aggregated formats in formal presentation. Additionally, knowledge documented through Indigenous education and information technology journal publication will be used to inform and prepare future technical professionals who are culturally competent.

Participants

Participants in this study were faculty, administrators and information technology staff at a tribal college in the Northern Plains region of the United States. The Tribal College was established in 1972 and was one of the six founding members of the American Indian Higher Education Consortium ([Tribal College] Policy Manual, 2013). The Tribal College emphasized the integration of traditional culture and language as part of its mission statement and institutional goals, a distinguishing attribute among dominant cultural higher education institutions in the region. During the period of this study, the College offered a wide array of career and technical programs, associate degrees in Arts, Humanities and Social Science, Mathematics, Engineering and Science, and bachelor's degrees in Elementary Education and Secondary Science ([Tribal College] Policy Manual, 2013). Current student enrollment was reported as approximately 900 full time and pre-college adults ([Tribal College] Policy Manual, 2013). The College employed approximately 150 faculty and staff members, the majority of whom are Native and predominantly Tribal citizens ([Tribal College] Policy Manual, 2013). A majority of the faculty and staff who participated in this study have been with the College more than a decade, which does not offer a formal tenure track, an indication of the commitment they have to the community and the institution.

As discussed, relationships form the basis through which identity and credibility are established in Indigenous communities (Wilson, 2008). Through established community relationships, I was able to make introductions with the information technology administration within a tribal college setting, who consented to host this study. As a component of reciprocity, and as a basis for conducting the study, I served as an unpaid instructional design intern for approximately 8 weeks and supported the instructional design duties of the information technology staff, as directed by the departmental director.

Informed Consent

This study was conducted in compliance with the protocols established by the Tribal College and the human subject research requirements of the Institutional Review Board of North Dakota State University. At the initiation of my internship and observations, I informed staff, faculty and affiliated community members of the nature of my project both through verbal conversation and reiterated in writing. A sample consent form is provided in Appendix A. At that time, and at other points during the study, participants were welcomed to ask questions and provided the option to elect to participate or opt out. To protect privacy, only information collected from individual members of the Tribal College community who gave consent was included with the body of reported data. In general, information was presented and reported out in aggregate forms and de-identified to protect the identity of participants.

It is culturally appropriate to offer tobacco as a gift to Elders who participate in research activities as part of the informed consent process. Elders are designated by age, community status or role, or positions of leadership or authority. Acceptance of the gift of tobacco by an Elder is an indication of consent to participate (Davis, 2001, p. 105). I offered tobacco to Elders who participated in this study as part of the culturally appropriate protocol.

As previously discussed, knowledge is derived from relationship; it is shared (Aikenhead & Ogawa, 2007; Wilson, 2008). It is respectful and appropriate in Indigenous research contexts to offer participants the option of identification in order to give proper citation to their contribution to a research study to avoid the perpetuating the concept of researcher as “discoverer” (Tuhiwai Smith, 1999, p. 174). As part of the cultural protocol for this study, community members who wished to be identified were directly credited for their contributions.

Methods

Wilson (2008) stated that “as long as the methods fit the ontology, epistemology and axiology of the Indigenous paradigm, they can be borrowed from other suitable research paradigms” (p. 39). Methods that supported the relationship and accountability concerns of an Indigenous research process were applied in this study.

Data Collection

This study utilized critical autoethnographic methods to address the study questions. Critical *ethnography* proceeds from “a value-laden orientation, empowering people by giving them more authority, challenging the status quo, and addressing concerns about power and control” (Creswell, 2007, p. 70). Ethnographers collect data through field research, which “involves the study of groups and people as they go about their everyday lives” (Emerson, Fretz & Shaw, 1995, p. 1). The work of the ethnographer has two parts: lived experience and documentation, or writing, about the lived experience (Emerson, et al., 1995). *Autoethnography* is derived from the Greek *auto*, or self, and *ethno*, or culture (Ellis, 2004, p. 31). Autoethnography frequently merges the literary approach of autobiography (Ellis, 2004, p. 31) with an analytical approach common to ethnography, a cultural group study (Creswell, 2007, p. 68), to examine personal experience, understanding, behaviors and/or perspectives. According

to Chang (2008), “what makes autoethnography ethnographic is its intent on gaining a cultural understanding” (p. 125). In this study, autoethnographic methods supported an examination of the self in a cultural context as a mechanism for gaining an understanding of the self in practice. By placing myself into a cultural context for which I was not specifically trained, I was positioned to critically examine my own skills and practices. I collected data for this study primarily through three mechanisms: (a) participant observation, (b) personal journaling, and (c) formal and informal interviews.

One of the central data collection methods used by ethnographers is participant observation (Atkinson, Coffey, Delamont, Lofland, & Lofland, 2001). “Autoethnographic data collection from the present is equivalent to ethnographic participant observation in that the researcher in either study collects data from naturally occurring environments while participating in activities” (Chang, 2008, p. 89). Participant observation involves long-term immersion in the routine activities of participants (Creswell, 2007). The researcher does not only rely upon observation, but also engages with participants, involving them directly as co-researchers (Atkinson, et al., 2001, p. 5). Participant observation is the term used to describe the first core ethnographic task, defined as the activity of “establishing a place in some natural setting on a relatively long-term basis in order to investigate, experience and represent the social life and social processes that occur in that setting” (Emerson, et al., p. 352). The ethnographer collects these experiences and feelings by documenting them, generally in written form, called field notes (Emerson, et al., 2001). Geertz (1973) referred to “thick description” in his discussion of ethnographic data collection, explaining that an important task of the ethnographer was to move beyond mere factual accounts to recreate, with words, the complexity and emotion of a human situation (p. 6). Through ethnographic field work, I became acquainted with the information

technology team, working in a tribal college setting, and learned from them about the various ways in which they engaged in supporting and managing instructional use of the technological resources at their disposal. Through interactions and conversations with the faculty and staff at the College, I also witnessed the ways in which they utilized technology in their daily work practices.

Participant observation has been utilized by other Indigenous scholars in collaborative social settings, and is situated within the context of a relational approach. According to Wilson (2008), participant observation conducted according to the community protocols and centered on relational accountability honors an Indigenous research paradigm (p. 40). Wilson (2008) wrote about the use of relationships both to gain access to a community for the purposes of interviews and participant observation, and as a mechanism for assuring the community that the researcher is accountable to them, and stated:

One important Indigenous research practice is the use of family, relations or friends as intermediaries in order to garner contact with participants. This use of intermediaries has practical uses in establishing rapport with research participants and placing the researcher within a circle of relations. This in turn enforces the accountability of the researcher, as they are responsible not only to themselves but also to the circle of relations. (p. 129)

Wilson (2008) explained that this relational approach, termed “relational accountability,” was also a more culturally appropriate way of assuring informed participant consent by placing potential participants in a more comfortable position of questioning intermediaries about the nature and motives of the research before encountering the researcher him or herself (p. 129).

In this study, relational accountability was assured at multiple levels. As part of my own development as a researcher, I requested the guidance and oversight of accomplished Indigenous

leaders who served in advisory roles on my doctoral research committee and as personal mentors. These mentors were also employed as higher education administrators and faculty members. During my internship at the Tribal College, my internship and research activities were also overseen by local administrators. Prior to receiving permission to formally interview faculty and staff, a College administrator reviewed my interview questions and asked me to explain my intentions surrounding the interviews. This added another layer of local oversight to my activities and assurance for the community that I was accountable. As a Tribal citizen, I was also accountable to my family name. Within the community, family obligations are a recognized form of group accountability. My father is a respected community Elder. My conduct during the study reflected not only on my own integrity but also on the reputation of my family name.

Journaling is an established method for capturing the self in autoethnographic research experiences (Chang, 2008, Kovach, 2009). “Ethnographic field journals are used to record the researchers’ private and personal thoughts and feelings pertaining to their research processes” (Chang, 2008, p. 95). Indigenous scholar Kovach (2009) explained that journaling is a mechanism for personal story, allowing the researcher to capture one’s own lived experience including dreams and feelings (p. 127). Written or recorded entries include narratives, tabulated memos, concept maps, diagrams, illustrations, and various other media or notations that assist the researcher in capturing feelings, impressions, experiences, chronologies and/or relationships as they unfold (Chang, 2008). I began journaling during the preparatory phases of this study as a mechanism for reflecting upon my development as an Indigenous researcher and formulating interpretations of the breadth of literature I reviewed as a necessary part of undertaking the study. During the internship phase of the study, I engaged in a combination of journaling and field note development to document daily activities and experiences, together with my reflections. Journal

entries consisted primarily of text and I occasionally included images or diagrams as needed to inform my memory.

Chang (2008) discussed the collection of data from sources outside the self through interview: “to stimulate your memory, to fill in gaps in information, to gather new information about you and other relevant topics, to validate your personal data, and to gain others perspectives” (p. 106). Interviews in Indigenous research are often informal and occur as open-ended dialogs or conversations as a way to honor reciprocal relationships and the significance of context (Kovach, 2009; Wilson, 2008). I employed interview and dialogue strategies as part of my research process. As required by the protocol established by the Tribal College, I received approval for the interview prompts used during the formal interviews that I was granted. A sample of the interview prompts is provided in Appendix B. Other dialogical data was taken from informal conversations and interactions between myself and other community members and was used with permission.

Increasingly, data collection processes also now include the use of digital technologies (Atkinson, et al., 2001; Chang, 2008; Fetterman, 1998). Kovach (2009) utilized recording devices at times in her own interview research to assure quality of transcription and to protect participants’ words (p. 128). As part of research etiquette, recording was done openly, but unobtrusively, with the informed consent of participants (Kovach, 2009; Wilson, 2008). Participants were invited also to review transcripts, which were constructed to include context and represent the voices of participants (Kovach, 2009; Wilson, 2008). Participant checking of transcripts is also a strategy for supporting community ownership of data and control of representation (Kovach, 2009, p. 100). I documented formal interviews with the use of a digital audio recorder, from which I created written transcripts. Prior to analysis of the transcripts,

research participants were individually provided a written transcript to review and welcomed to make revisions to their responses. Following analysis, participants were invited to review their contributions to the study and iterative drafts of the findings.

Data Analysis

Maxwell (2005) defined data analysis as the action of the researcher to make sense of the information that was gathered (p. 82). Maxwell distinguished between categorizing strategies, those designed to fracture data to build theoretical concepts, and connecting relationships, those applied to understand data in context and identify relationships (pp. 97 – 98). The application of categorizing and connecting strategies in complementary fashion is beneficial, but the specific selection of strategies must align with the goals of the research (Maxwell, 2005). As an Indigenous researcher, one of my challenges in analysis was to achieve a delicate balance of fracturing the data to find deeper meaning while honoring the broader context and relationships that were fundamental to gathering the data.

According to Ellis (2004), “there is nothing more theoretical or analytical than a good story” (p. 194). Story is a traditional Indigenous way of teaching and learning and building relationship (Kovach, 2009). Story is both a data presentation method and a form of analysis that supports “holistic, contextualized meanings” (Kovach, 2009, p. 96). Through story, the researcher can present information in context (Wilson, 2008). Kovach (2009) explained:

The presentation of story in research is an increasingly common method of presenting findings. Interpreting meaning from stories that do not fragment or decontextualize the knowledge they hold is more challenging. In response, some Indigenous researchers have incorporated a mixed-method approach that offers both interpretive meaning-making and some form of thematic analysis.... For Indigenous researchers, there is a

propensity to present findings in story form. Thus, the stories are introduced, often condensed. As with most qualitative research, they go through a member check. The stories stand, with the researcher reflecting upon the stories. Working with story as a means of making meaning requires that the research be presented in its contextualized form. (p. 131)

In her own research, Kovach (2009) juxtaposed academic discussions of theoretical concepts with her conversations with Indigenous researchers presented in story form. Wilson (2008) also demonstrated the use of story as an analysis method, alternating between a narrative story of his own research journey and an academic discussion of theoretical and methodological concepts in a more traditionally Western format. I have employed a similar approach in this study and presented findings through stories that provided contextual account of the research journey and central themes of the study.

This research presents, in story form, my personal development as an instructional designer and technology use in a tribal college context. I applied a four-part research process, as described by the literature. Kovach (2009) discussed the use of story in research as a non-linear and iterative process. First, the researcher must reflect upon whether the research questions at issue are amenable to story (Kovach, 2009, p. 123). Second, the researcher must build the foundation for story through data collection methods including the experience of participant observation, conversations with others and reflective journaling, as previously discussed (Kovach, 2009). Through writing and experience, the researcher builds relationships, gathers and refines stories. Wilson (2004) explained that stories are built as they are lived (p. 121). Data collection and analysis, the third and fourth components in the process, are cyclical and interdependent (Wilson, 2008). Chang (2008) explained “autoethnographic data analysis and

interpretation involve shifting your attention back and forth between self and others, the personal and social context” (p. 125).

I utilized thematic analysis as an approach for analyzing the stories in this study. Ellis (2004) described thematic analysis as “treating stories as data and using analysis to arrive at themes that illuminate the content and hold within or across stories” (p. 196). In this approach, stories are coded for themes in a process similar to grounded theory (Ellis, 2004). As the body of collected notes, writings and transcripts accrues, the researcher conducts an initial reading of the entire body to identify initial impressions (Chang, 2008, p. 131). Emerson et al. (1995) described this activity as “open coding” to identify all of the potential categories of themes contained within the field notes, making written marginal notations termed “memos” (p. 143).

As described by Saldaña (2009), a code is “a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data” (p. 3). Codes describe the data at the most fundamental level. As codes are accumulated, in other words, as more and more codes are assigned to the text, categories or patterns emerge. Coding is mitigated by the interpretive lens of the researcher (Saldaña, 2009, p. 4). The philosophical orientation of the researcher shapes both the details to which the researcher will most likely attend and the language that the researcher chooses to assign as codes (Saldaña, 2009, p. 6). In this study, I have applied an Indigenist lens, which Tuhiwai Smith (1999) described as uniting critical theory with restorative voices. As such, I was attuned, in particular, to those aspects of the data that provided evidence of *reverse deficit*: those distances between the needs and activities of the community around instructional technology and my own preparedness, or lack thereof, to serve those needs and activities.

Maxwell (2005) recommended early, frequent review and notation of field notes, both as a way to avoid a backlog at a later stage of the process and to inform changes to the process that might be needed (p. 95). At regular intervals during my research process, I reviewed my field notes and participants' transcripts, which provided me a sense of emerging themes and patterns and provided a framework for more detailed analysis later on. As the process unfolded, I was able to make some adjustments in my inquiry strategies and confer with participants about my perceptions.

After open coding, I returned to the data in a closer examination, also called focused coding, to refine the established categories and describe their interrelationships, through line-by-line analysis of what has been written (Emerson, et al., 1995, p. 143). The resulting codes were further categorized to yield more complex subthemes and identify the interconnections among them (Emerson, et al., 1995). Although this part of the process can be tedious and involves total immersion in the data, eventually, patterns emerged (Emerson, et al., 1995). As I accumulated detailed codes, I was then able to collect the codes together into broader categories, written as brief essays, which Saldaña (2009) has described as “analytical memos” (p. 32). Through a process called “codeweaving,” I conceptualized the inter-relationships among the resultant categories (Saldaña, 2009, p. 187). Conceptualization of these categorical relationships culminated in essays I termed “revelation logs,” detailed narratives of the central thematic threads of thought that linked various categories together. The goal was to identify themes that illuminated theory (Ellis, 2004). Kovach (2009) and Wilson (2008) each described the sometimes inductive nature of the meaning-making process in that, on occasion, clarity and inspiration came from non-empirical sources, including dream, prayer and introspection. Inspiration for revelations logs would come to me as epiphanies, sometimes in the midst of

coding, sometimes after a dream. The central threads of the logs became the framework of the findings in this study, the major ideas that were drawn from the study that were translated into a working theory. This activity assisted me to refine central ideas and determine which stories from the study were most relevant. Ellis (2004) described the final outcomes of this process as creating a narrative “sandwich – a story with academic literature and theory on both sides.” As a result of the analysis of the data, three key themes emerged from the data: (a) Indigenous identity development; (b) relationality; and (c) instructional designer as ethnographer.

As guided by an Indigenous approach, I paid particular attention to the role that participants played in assessing the appropriateness and authenticity of the researcher’s analysis. Because knowledge cannot be individually owned, analysis in Indigenous contexts is necessarily collaborative (Wilson, 2008, p. 121). It is appropriate to allow and invite research participants to review and comment upon findings derived from analysis, as the participants are uniquely and solely qualified to determine the validity of what has been documented about their own lives (Rock, 2001, p. 37). Following analysis, participants were invited to review initial findings and consider initial interpretations of the data. This allowed participants an opportunity to speak for themselves, to assure that representations of their experiences and understandings honored their perspectives, and respected Indigenous values regarding intellectual property and the shared nature of knowledge (Wilson, 2008, p. 132). The resulting narrative was reviewed by both parties in order to come to consensus on the story that emerged (Ellis, 2004, p. 72). The reader may also be drawn into the collaborative work of analysis through personal conclusions or interpretations of the written product (Wilson, 2008, p. 117). Ellis (2004) explained “readers provide theoretical validation by comparing their lives to ours, by thinking about how our lives are similar and different and the reasons why” (p. 195).

Summary

Historically, research in Indigenous communities has served a Western colonial agenda against Indigenous peoples. More recently, contemporary Indigenous scholars have asserted that Indigenous peoples must lead Indigenous research, and according to methodologies that honor and support Indigenous values, knowledge systems and traditions. This study was conducted according to an Indigenous research methodology because it concerned Indigenous peoples and incorporated five key methodological elements: (a) humility; (b) relationality; (c) shared knowledge; (d) an emergent research process; and (e) ethical practices according to Indigenous values. Critical autoethnographic methods were utilized in this study. Through an instructional design internship with a tribal college, I critiqued my practices as an instructional designer. Data in this study was collected through personal journaling, participant observation, and formal and informal interviews, which were transcribed. Data was coded for emergent themes and presented through the use of stories that contextualized the findings. During data collection and analysis, participants were invited to review collected data and findings. Data analysis revealed three key themes: (a) Indigenous identity development; (b) relationality; and (c) instructional designer as autoethnographer.

CHAPTER 4: FINDINGS

This study represents a personal and professional journey, the purpose of which was to use self-critique as a tool for informing the field of instructional design as it concerns cultural competence. In order to fulfill this purpose, I had to place myself into a context where I could test my own skills, receive feedback from others, and step outside of myself in order to see back into my work through a theoretical lens. As a result of the time I spent as an intern in a tribal college, and together with the interactions of the educators there, I was able to critique my practices and some of the philosophical underpinnings of my field. It has been a journey. This chapter is a collection of stories from the journey, and includes contributions from participants who were kind enough to share their own voices in this work. Like the separate squares and triangles of fabric that are brought together to create a quilt, these stories are the collected experiences that shaped my views about my practices as an instructional designer.

Beginning in a Good Way

I was raised outside of my Tribal community and was unfamiliar with many traditional practices. I lacked confidence about my identity as an Indigenous researcher. What did it mean to claim an Indigenous, a Native, identity, I wondered? How would I quantify my heritage and my heart? And what did it mean to be a researcher? How would I know I had captured the right, the best, data? In one of the many books I read as part of my preparation to begin this journey, I stumbled upon a passage that outlined in print my struggle, and for that moment, I was in the company of a kindred spirit. Eva Marie Garrouette (2003), author of the book, *Real Indians: Identity and the Survival of Native America*, wrote:

I am an unlikely person to write this book.... Perhaps it would more likely have been written by someone who had spent her whole life in a tribal community instead of only a

part of it, by someone who spoke her tribal tongue as a first language, not as a language only partially and imperfectly acquired in adulthood. Perhaps it would more likely have been written by someone whose racial ancestry was not divided between European and American Indian: by someone, in short, whose more indisputable racial authenticity seemed to confer upon her a greater authority to speak. (p. xi)

Before I could embark on the journey, it was necessary to spend a significant amount of time preparing. I sought out relationships with Native Elders, who had themselves walked scholarly journeys, and they became my mentors. One of the Elders advised me to build a strong sense of who I was. She told me that only when I knew myself could I successfully immerse myself in a new community where viewpoints and traditions were unfamiliar. I read literally thousands of pages of research literature, Native history and the writings of many Indigenous authors. I began studying a traditional language. I kept a journal of all of my ideas and experiences. As I read about the experiences of my ancestors during our nation's history, and heard stories from some of my Elders, I began to have thoughts and dreams, often lacking the words to adequately express them. In some ways, I was like a young child again, experiencing before speaking. My research advisor told me this was a natural part of the process and that my vocabulary to support that speaking would emerge. I was immersed in learning about the history of a human drama that touched on so many of the principles that Americans hold dear – freedom of expression, self-determination, freedom of religion and freedom of affiliation – all of which were denied to entire communities of people, some of them my own ancestors, living right within these very borders. Sometimes it brought me tears and sometimes I felt anger and sometimes I felt pride. It transformed me and I began to gain a sense of confidence.

Through the Elders who were mentoring me, I was able to make contact with leaders at the Tribal College in the community where I am a citizen member, and they agreed to host me as an intern and welcomed my research. Even so, I wrestled with uncertainty. I did not know if the community members at the Tribal College would accept me or have an interest in my study or feel that it was of any benefit to them. In an early journal entry, I reflected on preparations to go to the Tribal College:

It is home. It is my Tribe. Yes, I'm an outsider in the sense that I didn't grow up there. And I'm not terribly grounded in traditional cultural understandings. But if I am to learn it, perhaps this is best and only place. Perhaps I can learn it from my relatives and those who know my family. On the other hand, since my family is known, I feel strong sense of responsibility to do well and make my family proud, since my father is known in the community and his reputation is also on the line.

As a student, I could have chosen an easier road. There were other topics to research, and other ways of studying that would complete the research requirements of my University; but I wanted my efforts to honor tribal communities and give back. So, I packed up my little car, an 11-year-old maroon Honda, and feeling very much like a freshman co-ed again, I made the 500 mile journey from my house to the small town that would be my new home for the next several weeks.

I had arrived to the College in the mid fall and expected to stay several weeks, nearly until the semester break. I was to serve as an intern with the information technology team, assigned to whatever work duties they needed me to support, with permission to document my experiences and conduct interviews. I was able to rent a room in a dormitory-style bed-and-breakfast operated by the local parish of the Catholic Church. The accommodations were

Spartan, but secure, clean and extremely affordable. It served as a home-away-from-home for several temporary medical workers and consultants that frequented the community to do business either with the local hospital or other Tribal agencies, including the College. It also housed church volunteers and a handful of individuals who found themselves caught in-between the life they had lived and the life they hoped to lead. But the most veteran of all of the residents was a large, aged black hound they called Therese. Therese lived entirely out-of-doors and was free to come and go as she chose, but kept to a pretty regular patrol of the dormitory grounds. In fact, I was informed the other residents counted upon her to keep tabs on who was coming and going, and surprisingly, she seemed to understand this charge and even gave me a cautious sniff and a wary eye on the day of my arrival. Therese was a “Rez dog,” owned by no one but fed and cared for by all. Indeed, she looked quite overfed (read: fat), and walked with a little bit of an amble that suggested age. Early the morning of my first official day at the College, she ambled past me in the dormitory parking lot as I was heading to my car, carrying a paper plate of yesterday’s cheese nachos in her mouth. She looked at me for a moment and then continued past as if to suggest that I had passed inspection so it was hardly worth abandoning nachos for a mere pat on the head.

The Tribal College was located just away from the main town, about two miles out. One main road led out to the campus grounds. The College was arguably one of the most beautiful facilities in the community, modern and symmetrically designed. The campus was idyllic, situated on the rise of a wooded hill overlooking a lake. The landscape of North Dakota is vast and empty prairie. Here, on the Reservation, the prairie gives way to lush forest and rolling hills. White aspen trees surrounded the campus grounds, and every day, as I made the drive from my dormitory quarters to the campus, I understood the allure of living in that community. There

certainly were many signs of poverty and challenge. The Reservation, which some more commonly called “the Rez,” evokes negative stereotypes about the people who live there. In fact, even the Bureau of Indian Affairs website featured only three dismal photos of community: one of a tornado about to touch down, one of a bulldozer moving a huge pile of snow across a parking lot, and one of a road grater smoothing a heavily-rutted road, and these were hardly welcoming depictions. Even so, the forest spoke of an earlier time when game might have been plentiful and the waters of the lake pure enough to drink. Most importantly, what could be missed by the eye were the things which one must experience to appreciate: the relationships, the sharing and the strong sense of community.

Two weeks before my official date to begin the internship, I had traveled to the College to finalize the arrangements with the administration and to secure housing. That day, a portion of the main road to the campus was closed on one side for repaving, but dry and passable, as any street I had taken in my own city under similar circumstances. I was pleased to discover the morning commute would be a mere 10 minutes, a welcome change from the long drives that life in the city usually offered me. The first morning of my internship, however, I departed the dormitory early in the pre-dawn darkness to be on time to meet my supervisor. It was pouring rain and I made my way cautiously down the main highway to the turn that would take me to the College road, only to find that the first half mile of the road was entirely closed off to travel and stripped of pavement, full of ruts, and covered with about two inches of mud. I feared my little old Honda would get stuck. I managed to turn around, and followed the detour signs that were posted. Unfortunately, the alternative roads were not much better. Where there was pavement, it was often broken, and eventually I ended up on an unpaved road that had long given up its gravel to reveal wash board. Eventually, I lost sight of the detour signs. I was thoroughly lost and far

behind schedule. I pulled off the road onto the long driveway of a rural home to calm myself and get my bearings, and was greeted by the dogs that supervised that property, who left their paw prints on the few yet un-muddied areas of my car. I took a deep breath and pulled out my cell phone to contact the College administration. I swallowed my anxiety and cheerfully explained that I had gotten lost. When I finally arrived, a total of 45 minutes late, my story had already made the rounds among the College staff, and provided amusement for the day. Fortunately, nobody seemed to mind my late arrival and we all had a good laugh about it. They also shared some advice about an alternative route back to the dormitory. The city girl still had a lot to learn.

Every Monday morning at the Tribal College, they opened the week with a drum song. There are some men who lead this event - it is a ceremony - and gather in the main atrium, called the Medicine Wheel. The men sit around a large round drum and sing the traditional songs that have been passed down. They sing three songs and students and faculty gather around to hear the singing and smell the sweet grass that is burned. Since childhood, whenever I heard a drum song, I found it impossible to keep still. The beat of the drum stirred my emotions and would fill my chest, like a heartbeat, and I was compelled to bounce a little on my heels to the beat or sway gently to the timing of the song.

In this new context, however, I was unsure about whether I should participate or if there were any protocols that I should be sure to follow, so I simply watched the proceedings from behind the railing of the upper hall which overlooked the Medicine Wheel. The following Thursday, late in the day, they did the same. Then, I was invited to join in and told that it was respectful to wear a long skirt or a shawl if I had one. They told me this was all to begin and end the week “in a good way.” Partaking of the drum song assembly, I decided this was also how to begin my journey there in a good way.

Who's Your Dad?

In the dominant culture, titles and credentials are the marks of expertise and authority. By contrast, in tribal communities, one earns the right to assert authority and operate as an expert based upon one's relationship to others and place within the community. For example, at a job interview, it is common to be asked to relay a list of previous experiences and accomplishments, and it is considered appropriate to describe those experiences in a way that emphasizes how significant they were. I've attended events with a guest speaker, who was introduced as the person who accomplished this impressive thing or was the head of that important organization. I myself, in some places and times in my life, have even experienced a few brief moments as the center of attention for an accomplishment.

On my first day at the Tribal College, the IT director, who was assigned to supervise my duties, took me around to meet all of the staff and faculty. With each introduction, the conversation began like this, "This is Lyn DeLorme. She's a graduate student and she's going to be interning with us for a while to do some research."

After a nod or a gentle hand-shake, the reply was always, "DeLorme? Who's your family?" This would require some discussion to name ancestors and relatives and establish common connections.

In Indian Country, individual accomplishments do not matter as much as the identity of your family, your kinship. The reputation of your kinship creates expectations about what kind of person you are, whether or not you will behave honestly and fairly, and whether or not you deserve to be part of the community. In this community, I was not Lyn DeLorme, scholarship award winner, diligent graduate student, or even an experienced instructional designer. I was Gene DeLorme's daughter. My father told me later that, back in the day, he was Peter

DeLorme's grandson. Fortunately for me, my father had a respected name in the community. My father had helped many students to persevere in college and contributed to the community through grants and leadership. Later, as the community members had time to get to know me, they asked those other important questions about what I was researching and my experience. I was granted the privilege to do the work, and a place in the community, because I was Gene DeLorme's daughter. Of course, that also meant that my work in the community not only reflected on me, it also reflected on my father. Family relationships help define identity.

Identity is not only a messy issue on paper as the scholars describe it; it is a source of struggle in the lived experiences of many of tribal descendants. Culture cannot be neatly defined and creates some tension between the past and the future. Culture changes. In an interview, an experienced instructor at the College shared his wisdom:

I think, in most instances, people think that culture only represents the past. In my estimation, culture is now and our cultural existence as a human population is who we are in many different activities of life: language, music, on and on and on and that's who we are today and I think that's who we have to acknowledge who we are, but we're not who our ancestors were back when. Our understanding of them is important because it represents our historical ancestry, our heritage, and therefore we should be aware of it and appreciate it and take advantage of our understanding of it as best we can, but we can't say one is the other.

Experiencing the drum song at the Tribal College was one of the ways that helped me to begin reconnecting with my heritage. As I spent time with the College and formed relationships with the participants there, I became more comfortable with my own identity, the tension of standing sometimes between two worlds, and gained comfort from the fact that I was not alone.

Other members of the College community shared that they, like me, were walking the pathways between Native traditions and Western ways of being. An administrator at the College described her approach as “a basic core of respect,” and moving with joy between the tradition of the drum song blessing and still retaining her Catholic beliefs, saying “there’s nothing that stops me as a Catholic from being down in the smudges they do every Monday morning....I love to be part of it.” Another staff member shared that she appreciated the opportunities she had had to learn about cultural traditions and language in school and wanted continue learning more.

The Instructional Designer Becomes an Ethnographer

I wore two hats along this journey: one as an instructional designer and the other as a researcher. At first, I was unsure how to balance the two. My supervisors had provided me a small office that served as my base of operations while I was there. It was well located, close to the faculty and near enough to the IT office to be of use to them. Equipped with my laptop computer and my brand-new digital audio recorder, I spent those first days using the time I had to begin piecing together my field journal, including all the experiences of arriving to the community and meeting everyone at the College. I was, frankly, unsure about how to begin, so at first, I wrote down or made verbal memos about everything I saw and heard and felt. I decided to simply trust that eventually it would all begin to make sense and somehow I would be able to weave something meaningful. Of course, everything was all very new to me as well, and in hindsight, it was easier in the beginning to document all of the novelty than later, as I became more familiar and began to take details for granted. Sometimes I was rushed to quickly make mental recordings, and then translate these into written records in my field journal. More often, I had time to contemplate the *ennui* of field research during long periods when it seemed nothing was happening and I was alone with my thoughts.

After a few weeks there, I noticed that time began to move differently for me. In my previous experiences as an instructional designer, I'd always worked with this internal sense of urgency and drive. Things had to get done, and the sooner, the better. I'd made statements at job interviews like "I've never missed a deadline." I was eager to connect with faculty. At first, I was concerned that I would run out of time, and not have the chance to conduct all the interviews I hoped or observe or experience all that I hoped. I was afraid I wouldn't *find* anything, and as a researcher, I was terribly concerned about *findings*. I hadn't yet learned to fully trust the journey. But there was no way to rush rapport, no clock that would dictate building relationships and no fixed timeline for learning. And as I reflected upon my journal writings in those first few days, I realized that my Western mind was a slave to the clock. I remembered the words of Shawn Wilson, one of the Native authors that I admired, who wrote that "research is a ceremony," and every Indian knows ceremonies in Indian Country take as long as they take. After that, I focused less on the clock, and more on simply getting to know the staff and faculty who passed by in the corridor, interacting with them on a purely social basis, without attempting to question them about their views on education or technology.

I was also eager to fit in. For all my textbook efforts to prepare as a researcher, there were still many things I had yet to learn. Those first days, I came dressed in my professional best – a jacket, slacks and dress shoes – attire that I was accustomed to wearing in the business atmosphere of my previous jobs. And I looked and felt totally out of place. One of the first instructors to befriend me had an office just across the corridor from mine.

"*Tawnshi kiya*," he greeted me, and explained he had known my father and introduced himself right away. Sometime later, he told me he had noticed my attire and shared a story with me.

When I was doing my own research around here, I thought, well, I need to be professional so I would dress business casual, with a tie and everything. Then I'd knock on a door, and I'd say, "Hello, I'm working on my Master's thesis." They would say, "We don't have time," and close the door on me. So I rethought how I was presenting myself. So then I started dressing in t-shirts and I'd go there and I'd knock on the door and they'd open the door and say, "Tawnshi kiya!" I'd say, "Oh! Well, I'm trying to collect data for my thesis." And they'd say, "Oh, education's important." And then sometimes – and this was the most rewarding part of my whole project was to talk to the people – first they'd have to know who I was, who my grandparents were, my parents, and then they'd tell me stories, sometimes for an hour, and then they'd say, "I'm sorry, but I don't have time for your study," which would've taken probably 35 or 40 minutes, you know? The interaction was really enjoyable. Or they'd say, "No, I don't have time but just a minute." So they'd come out with cookies or frybread [a deep-fried dough] or galette [a baking powder bread] and say, "Here, take this." So, to me that was very rewarding. But when I dressed like I was important, I would venture to say that they were put off by that because it seems like that was putting myself higher up on a pedestal, if you will, than they were. I wasn't one of them, which is why I don't dress with business attire here, because I could.

He explained that he wanted to build community with his students, not hold them at a distance. He wanted to help his own students feel confidence, so he dressed in a way that made him approachable. Likewise, I didn't want the other community members to feel I was there to scrutinize them or their work. I made a mental note make some wardrobe changes at my next opportunity.

One of my first assigned IT duties was to collaborate with the IT staff to help draft a new guidebook for instructors teaching online courses. The IT director instructed me to provide feedback about what they had already developed and “give it to him straight and don’t hold back.” As an instructional designer, I certainly appreciated the value of good assessment and processes. On the other hand, as a long-time educator, I also knew the harm that was often caused when outsider consultants entered a school, pronounced their expert words, and then vanished without regard for the wisdom or skills of those who were already invested and left to do the work. As a researcher, I had also gained an appreciation for the value of a mutual exchange and the dictum to do no harm. I certainly did not want to promote my own vision of the online program, but serve as a real resource. I couldn’t simply take one of the models I had learned or used so often at the University, without some idea about the local needs and what might fit. I also realized that perhaps a model that might seem to apply from my point of view could potentially conflict with their way of approaching the process.

So, I began by reviewing the drafts and making my own notes in one place, and thinking about the most respectful way to present my critiques. I settled on an essay of sorts, listing out questions for reflection in hopes it would lead to shared development of knowledge and improvements through discourse, which seemed more respectful. I hoped an inquisitive approach would leave open opportunities for others to consider things that may not have occurred to them in this development process, without feeling threatened, and gaining a sense of ownership of any revelations or forward moving progress that emerged. During our first meeting after reviewing the drafts, we visited about my questions in order that I might learn about all that they had done to arrive at that point in development and their thinking about the process. I listened very carefully and made copious notes.

This became the first of a series of lessons about how I approached my practice as an instructional designer. In the past, I hadn't always paid so much attention to the need to mutually generate knowledge or consider the unintentionally confrontational nature of how I had been trained to offer "expert" opinions. Of course, that would have been in the days of when I thought about knowledge in the abstract, as distinctly separate from people, as proprietary, and considered myself in the role of *instructional design model expert*, in the land where process and experience mattered more than relationships. In this new context, I was thinking about how this would emerge and placing high value on the relationship forged between me and the team members, ever aware of the tension created by my role as a researcher and the barriers of distrust and self-protection that might create. I wanted to support outcomes and truly mutual project development, weighted to favor their own vision for outcomes, so that they would feel full ownership. I also wanted to depart the community knowing that I helped to build something that belonged to them and would continue after my departure, rather than swooping in, raining down expertise, and then leaving the chips to fall where they may. I was pleased then, to be included in development discussions that became highly collaborative and productive. They also nurtured positive relationships between me and the IT staff members. It seemed the particular model of development utilized was secondary to the ways in which participants were able to engage. My efforts to study their process were rewarded. Within several weeks, we were able to complete a draft of the guide and made plans to present it to the administrative team for review.

As time passed, the faculty also became more welcoming of my presence and interested to learn more about how I might assist them. I hoped to interview some of them, but realized that first, I simply had to spend time getting to know them and letting them get to know me. I also invited them to use me as an instructional designer and sounding board if they simply

wanted someone to listen as they considered their curriculum or instructional activities or how to integrate technology. After some time, a few took me up on the offer and even allowed me to observe some classes, which was very rewarding.

Frybread Isn't Traditional, but We Eat It Anyway

During my time at the Tribal College, I learned how especially important food was as a way of sharing and demonstrating investment and relationship with others. I realized that many of the staff and faculty were also members of this community, and members of the Tribe, and even members of related families. The College wasn't just a workplace, but another place where one engaged with friends and family. Much attention was paid to community fellowship, often expressed in the form of sharing food through potluck meals or fundraisers. One day, the students were selling Indian tacos in the atrium to raise funds for a conference trip, made with homemade frybread. Of course, very few people ate in the cafeteria that day, and of course they were delicious. Then, another day, some of the faculty sponsored a traditional lunch featuring wild rice casserole, buffalo stew and frybread, to which everyone was invited. Even the IT department hosted lunch with ham and bean soup and galette. I especially appreciated these because my accommodations didn't provide much opportunity for home-cooked meals. Every shared meal was delicious, and it didn't take long before I asked if there were foods that I might also bring and share. Along with all of the food, there was plenty of visiting and good humor to go around.

Researchers often fail to mention humor in Indigenous studies, but humor is an important feature of life in Indian country (Deloria, 1969, 1988, p. 146). One community member explained to me that Native people often used humor as a mechanism for coping with the challenges of life and seeking the humorous side of life was part of the process of healing from

trauma. Deloria (1969, 1988) explained that through humor “life is redefined and accepted” (p. 146) and that humor facilitated solutions to problems (p. 147). Humor and friendly teasing abounded and I enjoyed the easy camaraderie that many of the staff and faculty shared.

As a young child, I thought my father’s sense of humor was so unique, compared with the other fathers in our neighborhood. Now, amongst my relatives and Tribesmen, I recognized it in others, and this also helped set me at ease. While we were eating ham and bean soup, someone commented that the carrots in the soup were well sliced, and another responded that when he was done chopping them, he didn't need a manicure because his nails were nice and trimmed and all the dirt under them was gone! Of course, this earned a hearty round of laughter, but certainly did not dissuade anyone from the delicious soup.

On another day, I was waiting in an outer reception area to meet together with the IT director and one of the other staff members. As I waited, I noticed a poster on the wall with a photograph of the current College grounds, and additional cardboard “buildings” glued to it to represent future building plans. I asked about it with a statement about how great it would be if they realized their goals. The IT director wasn’t certain of the identity of all of the future buildings in the plan, so he turned to ask the staff member, who had just come out of his office to join us. He introduced himself, offered a statement that he knew my father and thought he’d met me before, and then looked at the poster. “What’s this?” the IT director asked, to get information about what building was planned in that spot on the poster. The staff member looked at it thoughtfully for a moment and replied, “A triangle. And that’s an equilateral,” he added, pointing to the adjacent cardboard building placeholder. It was the very kind of joke my father might have told and I couldn’t resist laughing out loud.

There were also many opportunities taken to celebrate, and in the context of the many challenges that were just a part of daily living on the Reservation, these seemed to me to be both necessary and sustaining. I was fortunate enough to share in the celebration of the 40th anniversary of the College's founding. The meal began with a drum song and a blessing. Time was always taken to mark the sacred and begin in a good way. The variety and quantity of foods offered was magnificent. Several hundred people participated, and the Elders were encouraged to go to the front of the serving lines. This was also a tradition that I was raised to observe. As the meal was beginning, JT Shining One Side, the Culture Coordinator, saw me heading for the end of the line to get food and she said, "Lyn, get these Elders something to drink." My childhood training came back to me and I knew that the tone of voice and the instruction indicated two things: first, that JT, my Elder in her own right, expected that I would know enough to honor the Elder guests by placing their needs above my own at that moment; and second, that she thought enough of me to entrust the duty to me and that I would handle it well. Her request filled me with a feeling of acceptance that I was like any other daughter of the community. So of course, I went over to the Elders, took their beverage order and brought them drinks before taking my own place further to the end of the serving line.

As the meal was ending, food that was left was dished out onto plates, which were wrapped for transport to take to relatives, friends and community members who were not in attendance. To an outsider, this might seem a rude occurrence for guests to take away so much food, rather than to leave it for the host. But from the inside, it took on an entirely different meaning. This sharing beyond the event had other significance. Those who could not come were remembered and included in relationship as if they had been there, including those who had work elsewhere and Elders who were no longer well enough to travel. Those who were in need

could also be served with dignity, and also, discarding food in a community where poverty was a continuing challenge was disgraceful. Later, one of the instructors who supervised student teachers told me a story of the need to be respectful concerning the importance of sharing food. She shared that one young teacher had gone to a classroom and invited the children to participate in a science lesson featuring Oreo cookies as a demonstration device. When the lesson was over, he directed the students to discard the cookies, because they had been pulled apart and handled. She explained:

And I watched this and I thought: we don't do this in a culture of poverty because food is not something that is thrown away, especially all these wonderful Oreo cookies. But I watched the kids as they took their little paper plates with all the discarded frosting and bits of Oreo half cookies that they didn't get to use and they're throwing them in the garbage and they're not looking happy about it. They didn't like it one bit, but they're doing it. And I really became concerned about this. I didn't like it. And then the instructor saved himself by pulling out a fresh package of Oreos and giving each child two fresh Oreo cookies. And I talked to him afterwards. I said, "You have to understand the culture of poverty and food is not something to be played with and then thrown away, especially fun food like cookies, jelly beans, licorice. You have to get rid of the concept that now that they've touched it and played with it and it's been on the desk, that it's dirty and they can't eat it."...So, those are the kinds of things that I think about and when I see lesson plans for my students, I'm aware of those types of things. Are you aware of the culture in which we live? Are you providing for an equal learning opportunity for all the students?

Later, as I reflected on her story, and the sharing I had seen, I realized that this, too, was shaping my understanding of myself as an instructional designer. No model was going to provide to me this kind of lens; I could apply no design *process* to this context that would account for an ability to appreciate the learner's context or values. This understanding would have to come from within me, from the heart. I needed new eyes. The time I had spent in observation, in dialogue, and invested in the other community members was creating this new vision.

The *A Priori* That Schooled Me

Several of the community members eventually agreed to grant me formal interviews to learn more about how they approached their work and how technology fit into their activities. One of the instructors who agreed to visit with me was a veteran member of the faculty. He'd been working with students in his discipline for many years and generously agreed to an interview about his teaching practices. During his interview, he shared that he was looking forward to having an instructional designer review his courses and tell him "what needed improvement." I'm not certain if my frame of mind was so inwardly bent because I was striving to be an autoethnographer, but later, as I reviewed the transcript of our conversation, I was immediately sent down memory lane and recalled a time when I had attempted to tell an instructor "what needed improvement" and failed miserably. Early in my career, a veteran college instructor had asked me to evaluate the online components of her hybrid course and tell her how to improve it. Eager to please, I welcomed the opportunity. So, I spent a couple of days reviewing her content, her course design and comparing those to the best practice standards that I knew, in search of areas to target for improvement.

In research vernacular, the *a priori* assumption is the assumption that is deemed self-evident, that is, taken for granted to be true based upon what seems reasonable. Early in my career, I hadn't yet learned how to question my *a priori* assumptions about how to apply the models I'd learned in practice. For starters, I hadn't really spent the time necessary to develop a collaborative sense of what the instructor thought was a strength or weakness of her course or her assessment of learning or instruction and my subjective attempt to "improve" her course ultimately was both insulting to her experience and effort as an educator and largely failed to provide anything more than cosmetic adjustments. In other words, my *a priori* assumption her course was in need of improvement was dangerous and arrogant. I had spent my time studying her content and format and comparing those to an external model, rather than studying her and the culture and context of her instruction. I would have been wiser and more effective, and likely better received, if together we had consulted and established standards or were collaboratively solution-seeking relative to a concern generated by the instructor herself. It was yet another lesson about my practice and as I continued to consult with faculty at the College, I became aware of my own efforts to listen and observe more deeply and understand best practices from the local point of view.

They're All Our Kids

As reflected by my initial research questions, I was very interested in understanding how the faculty approached their teaching, especially as it concerned their use of technology. My interest did not stem from an intention to measure or qualify their practices according to some standard as many researchers had done before me, but from the hope that I could use their practices as a guideline for reflection upon my own work as an instructional designer. As my

days at the Tribal College unfolded, I certainly did learn about that, but also much more than I expected about the heart they brought to their teaching.

Tribal colleges are set apart from other community colleges through their emphases on culturally relevant education and particular attention to the needs of students. “Traditional Native values generally place a great deal of importance on extended family, inner strength and wisdom, educating youth, sacredness and autonomy of children, family unity, and cooperation” (Alfred, 1999, as cited in Dilevko & Gottlieb, 2004, p. 45). This Tribal College also includes these unique concerns in their official mission and goals statement, which reads, in part:

In and out of class opportunities to discover the nature of Indian society, its history, variation, current and future patterns, needs and to serve as a contributing member toward its maintenance and betterment; and, a curriculum wherein Indian tribal studies are an integral part of all courses offered as well as history, values, methods, and culture of Western society. ([Tribal College] Policy Manual, 2013)

The Tribal College serves, like other Tribally-controlled institutions, as a resource for supporting, preserving and connecting students and community members both to cultural traditions and to modern wisdom and skills. The College itself is a symbol of the community taking back lost cultural identity and tribal sovereignty. The facility interiors feature commissioned works of local artists, including woven birch bark baskets and other fine arts. Facility signage is printed in both English and Anishinaabemowin, the traditional language of the Ojibwe people. A large medicine wheel, a sacred symbol, is designed into the floor of the main atrium of the College and important gatherings and ceremonies are sometimes conducted within this wheel. The thematic word is “immersion,” and the goal is that students and visitors alike will sense a thriving, living cultural presence even within the very walls of the facility. The

College administration has also designated staff members who are specifically charged with duties related to planning and promoting cultural observances, assisting faculty to integrate culture into the curriculum, and community outreach. The College is a place where Native people can experience a valuing of Native identity.

Of course, goals and aspirations written in ink must be lived by people to be viable. The Vice President explained to me that that the mission statement was more than just a collection of words, but “what connects them [the people] to this place....You can never ever forget where you came from. It’s what makes them a tribal college and not just a community college.”

Through my conversations with instructors and as they began to allow me to visit their classrooms, I had the opportunity to see firsthand how they played a large role in furthering those goals.

I saw a great deal of evidence that they were both professionally and personally invested in their students at a higher level than I had encountered before. One instructor shared:

They’re all our kids, you know. They’re all our children. I can leave here and make a living somewhere else. My nieces, nephews, grandsons, granddaughters, they’ll all be here. Your elected officials are only a reflection of the people that they represent....If we have educated people, we’re going to have a more educated Council and we’re going to be able to do better in the ways of providing a fire department, police, healthcare, things that all the community needs. When you do something for somebody else and bring somebody else up, it helps all of us. It helps our community.

The Academic Dean explained to me that a majority of the instructors were Native, and many were Tribal citizens. He also explained that many, even many of the non-Native instructors, had been teaching at the institution for many years and cared deeply about the community and

understood the local culture. When I asked her to tell me about her work at the College, one instructor explained, “it's really a great place to teach. I feel like when I ended up here that I ended up in the perfect teaching situation.” She went on to explain,

When you're dealing with Tribal College students, it's really hard not to start really caring about them. And it's such a delight too....I've been here long enough so that I take great satisfaction in seeing where some of our students have gone and knowing that, maybe to a larger extent than would be true even at a university, we really can make a difference in the lives of the students – and not only in their lives but in the lives of their children – because we start seeing where, when I was first teaching here, most of the students that we had were first generation college students. And in a lot of instances they were the first to even have high school diplomas. And now we're seeing more and more of our students are coming from homes where their parents are educated. And, I think that's where you really start seeing a brighter future for a lot of the students.

She was not the only instructor to speak of her sense that her work as an educator was part of a greater mission to make a difference in the lives of students. Another instructor who also had been teaching at the College for many years explained it this way:

Knowing the dynamics of the people in terms of cultural heritage, reservation life, and family structure is important. A good teacher doesn't use any negatives derived from that as a measuring device for the students attending the college. From day one a teacher has to gain the respect of the students by showing they care about them....Once you develop that relationship you can have a greater impact on student success. Students need to see that someone believes in them and therefore they become more receptive to the skills and knowledge needed to enhance their development as students.

Others also spoke about how they wanted their students to see the value in their classes and what it could do for their lives, sometimes in terms of wanting better for their students than they themselves experienced in school. One instructor explained that in his own past experiences as a student, he didn't think his instructors cared if he was there or not. He shared his own teaching goal was to impart to his students "something that will stay with them, something that will have some kind of good effect down the road as they progress." Another instructor explained that through his own experience of struggling and persevering in college, he taught his current students in the same manner that he found he had learned best. "If I found a class to be boring, I do a total opposite of what that class was to me in school...because it does no good to have a class and come out of that class not knowing anything." Staff members also shared with me their sentiments for the greater purposes of their work. The IT director explained "Everything that we do on a day-to-day basis is focused around them [students and faculty] as the core...making sure they have the tools that they need to effectively teach and provide instruction to students."

Of course, as much as the faculty demonstrated deep personal commitments to their students, they also espoused deliberate instructional goals as well. Instructors reported several motivations that underpinned their teaching work, including student content mastery, cultural enrichment, practical relevancy and the desire to engage students. In classroom visits, I saw examples of a wide array of teaching practices of the variety I anticipated finding in a higher education setting, including lecture, assessments, written and performance-based learning activities and experiential activities such as field trips and guest speakers. Many of these activities were conducted with an emphasis on cultural relevance. Instructors introduced culturally relevant curriculum into their teaching through language instruction, historical reframing or discussion of current events from a Native point of view, utilization of Native

paradigms as frameworks as curricular frameworks, and information about and celebration of traditions. During my time at the College, one class hosted traditional dances and prepared a banquet of traditional foods as a celebration day for the College. During one of my classroom visits, an instructor facilitated a discussion with students about stereotypes. He spoke of examples in American history when Native soldiers were given particular duty assignments because of the perception that Indians made better trackers and have keener senses. Another instructor, in a U.S. History course, had included also a history of the movement of the Tribe westward as the United States was emerging.

Some of the instructors also reminded me that the stakes were high. Education and challenge go together in Indian country. Life on the Reservation is harder than in other communities in the region. The community contends with the effects of historical trauma, defined as the accumulated and unresolved emotional and psychological injury, suffered during the lifetime and across generations, resultant from the devastation of genocide (Brave Heart, 1998, p. 288). As explained by Lajimodiere (2012), the consequences of historical trauma include social and cultural maladaptation manifested as post-traumatic stress disorder, substance abuse, domestic violence, interpersonal disorders, and social breakdowns that may be passed from one generation to the next (p. 3). Poverty also poses a significant challenge. The difficulties of life on the reservation are further exacerbated by the remoteness of the rural location, which physically limits access to some types of infrastructure and resources, and the bitter climate of North Dakota winters. Educators and learners must contend with a legacy of education as a tool for assimilation, poverty and all that goes with poverty, including lack of resources, quality and access. One instructor described it this way:

You get a lot of students who come from, I'll say, a challenging home life, maybe poverty or other social issues....In our Tribal community, there's a lot more crisis than most communities would have to deal with. And it would be easy to just shut them out but they're not going to come back and that was one of the reasons tribal colleges were started, to help young mothers, in particular, who probably would have never had an opportunity later on. And so I think it's just important as an instructor to be aware of that. Instructors and learners must also contend with negative stereotypes. As an example, an instructor explained that it could be easy for outsiders to misconstrue the intentions of a student who had missed class. He shared:

Growing up here, being a student, I didn't even have a quarter in my pocket sometimes, and making it into school was difficult....Don't think that because someone says, "Well, I didn't have gas, I had a flat tire," or something, means that they didn't care. It means that they couldn't make it.

There have already been many researchers who have documented these issues. Few have explained that despite these challenges, instructors believe in the potential in their students. JT, the Culture Coordinator, explained:

Don't teach down to our people. Teach above and help them to get there if they don't understand what you are teaching, because they will get to where you're asking them to be, but it might take some time. But expect more out of them because they will give you that. That's one of the things that I really believe...our students are gifted here, if somebody would just take the time.

Another instructor shared this:

Don't assume that students are ignorant or unintelligent because their vocabulary might not be as strong as you would expect it to be, or that their writing skills are lacking, or that they're unintelligent because they don't have the requisite skills to construct a proper, complete sentence, when in fact, a lot of these kids when they were young may have had to be adults, be an 8-year-old who had to get his 6-year-old sister or brother ready for school...and that's a harsh reality and truth in Indian Country...sometimes children are forced to become that parent figure when they're young. So other things become unimportant. Learning vocabulary doesn't mean anything when you have to provide food when you're an 8-year-old for your 6-year-old sibling. So they've learned tough lessons and those lessons are no less important than constructing a complete sentence. So, never assume.

More than what they said to me, I could see with my own eyes that instructors cared on a personal level about their students. In classroom visits, I noticed that students who were also parents of young children were welcomed to bring these children to class when childcare was not available. Sometimes, while visiting with instructors, students would stop in to speak with a particular instructor. None of the instructors ever waved a student off or told them to come back later, after our visit was over. Instead, students were given priority and the exchange was not ended without words of encouragement from the instructor, even for those students who were failing a class. This witness demanded that I, in turn, reflect upon my own underlying motivations as an instructional designer. To remain unaware of my own commitment and caring on a heart level would certainly impair my ability to support the instructors and the larger institutional goals. It would not be enough to do the work well, to faithfully carry out the stages of a model or assess learning outcomes. Serving as an instructional designer here would require

caring awareness to attend to the nuanced ways in which a design process or curriculum paradigm or learning environment reflected underlying values of caring and addressed the realities of life in this context.

“Digital Natives” and Technological Immigrants

The College was a technological leader in the community and provided several types of access to digital technology in the course of service to the general community as part of the mission to serve the larger community. In several locations in the building, computer kiosks with high speed Internet access are available for any student or visitor to the campus to use. Access to technology in general gives this rural and economically challenged community access to goods, services, information and educational experiences not otherwise available. I’ll admit with some embarrassment about my own ignorance that I was surprised to discover that in many ways, access to and use of digital technologies was similar to that which I’d experienced at the better-funded universities, despite all the “negative press” to the contrary in the research literature. In some ways, the College was on the cutting edge. The IT staff were exploring cloud-based services for some productivity and communication services. A learning management system had been implemented and many instructors utilized it to disseminate class documents and resources and, in some cases, to teach online. Some of the instructors had recently pilot-tested iPad and other tablet-based learning tools for their classes. Nearly all of the classroom spaces featured computer podium stations, with Internet access and LCD projection systems. Several classrooms featured smart boards and smart flat-panel televisions. Students, faculty and staff could also bring their laptops into the IT department for complementary technical support and repair, a service that my own alma mater actually charged a hefty hourly fee to provide.

I mused that these were “digital Natives,” and they made use of technology to teach and learn in ways similar to their non-Native university peers. In classes I observed, instructors used visual aids and slide presentations in ways that one might anticipate in collegiate classrooms. Instructors communicated with students via email and some were even avid users of services that allowed them to send text messages to their students. Most students carried cell phones and many of those were smart phones. Texting in class was a common complaint amongst instructors, just as many of the university professors I’d worked with in the past also complained of the habit amongst their own undergraduate students. More than one instructor shared their wisdom concerning managing these mobile devices in class. One explained he encouraged students in his history course to do Internet searches on topics that came up in class and chime in during lectures with lesser known facts or to search answers to the quiz bowl tournaments he sometimes held in class. Some instructors were teaching online and interested in continuing to hone their skills to create instructional media and engage students.

They were also technological immigrants, migrating to technology as a new frontier, and some of the instructors expressed their interest in the ways that digital technologies could be further harnessed to preserve and perpetuate Native culture. The Culture Coordinator, a role recently developed to guide cultural curriculum, shared her vision of how she hoped to utilize technologies to further curricular goals, including an online Anishinaabemowin course, video newsletters for the student cultural club to document Elders and traditions, and digital disseminations of an audio clip of an Anishinaabemowin “phrase of the day” to community members, including instructors and students.

I asked the instructors who agreed to visit with me to tell me what they expected from an instructional designer. Some indicated an interest in another set of eyes to assess the quality of

their courses or teaching methods. Others were interested in support to learn new technologies. Some mentioned an interest in curriculum development for courses they were hoping to create or the creation of media to support content instruction. Others wanted additional technical support for troubleshooting the failings of software and hardware common to the endeavor of education in the digital age. These expectations were not unique. These expectations could be translated to a list of duties that were familiar to me and similar to the kind of support and consultation I was accustomed to providing to higher educators.

Their expectations, however, were not limited only to the kinds of technical or methodological mastery I was accustomed to providing. Many of them also indicated, directly or indirectly, that they expected the instructional designer to be culturally competent and have an understanding of the culture of the community. When describing her expectations about support for creating instructional media for her traditional beading course, JT, the Culture Coordinator, explained:

Because I think that's hard when you are a master at what you do and somebody wants to come in and work with you on something and then, because of their interest, you end up teaching them and you're still at ground zero because you had to walk them through this, parts of it.

Some instructors indicated an expectation that the instructional designer could serve as a resource for new instructors who were not from the community. One instructor defined the expectation that the “designer could provide a lot of insight for somebody to be aware of things that culturally are not appropriate; to be aware of how subtle differences among groups of students might make a huge impact in the way that they present a lesson.” The ramification of

this expectation was profound: to be a competent instructional designer for this community was to be a cultural resource and to be a cultural resource was to be a student of the culture.

The Ethnographic Designer

As I neared the end of my internship, I sifted through the collection of journal entries and transcripts and notes I had amassed during the internship. I considered, again, the journey that had culminated in all these written artifacts and reflected upon the length of my career. I began my career as an instructional designer before I was formally trained as such. In short, an instructional designer is one who helps others, through a teaching/training process, to prepare or develop an instructional environment, and in this modern context, is generally inclusive of digital technology. Loosely understood, then, my first real work as an instructional designer began when I was still working as a training coordinator for teacher professional development at a Teacher Center. My work there was one of the reasons I became so familiar with technology. It was during a time when ubiquitous Internet access was a brand-new and luxurious thing, and those of us at the university were very privileged to have unlimited, unmonitored, high-speed, access. Furthermore, it was a time when anyone who knew anything at all about a computer was dubbed a “technologist.” During that time, I used email to disseminate our publications electronically, and despite my novice design skills, I was very proud of the website that I built from scratch to advertise the activities of the Teacher Center and its library. In the department adjacent to my own office, a colleague also wanted a website for her program. The university did provide some technology training support services but they were limited. At that time, proud of my own skills, I offered to help my colleague. Together, she and I built the first iteration of her website. It was a collaborative effort. We worked together to figure out the site design and I trained her how to do some updates. I believed in *her* ability to learn the technology because I

believed that technology was not really difficult to learn and that the only real barrier to learning technology was a person's own perceptions of their ability to learn it. I thought that although technology *seemed* difficult to master, it really was not. I also learned that I had to balance the desire to help other people learn to become masters of the technology with the desire to just “hurry up and get it done” by doing it for them. This later became a source of challenge for me, a sometimes humbling learning experience. At that time, I lacked a true understanding of the depth of reticence of some people to adopt or master digital technologies.

I took this attitude – this “can do, and must learn” approach – into my next job, my first job as an instructional designer, after completing my graduate degree. Our design team had three cultural rules:

1. Treat faculty, students, and staff like paying customers.
2. If you don't know how to do it, be willing to say so.
3. If you don't know how to do it, be willing to try and figure it out.

From these three cultural rules, which formed our orientation to providing service to our clients, I understood that productivity was paramount; paying customers wanted results and they wanted them fast. We had rules about providing one-on-one instruction to our clients and how quickly clients could expect a return call or service from us if asked. I also understood that I didn't have to know everything, but I always had to be willing to try something new outside of my comfort zone. Unlike other instructional design and IT systems I have since been a part of, the environment of that first workplace was in some ways highly permissive.

My daily work there involved several regular tasks. First, I served as a consultant on a software design team. My job was to communicate directly with clients to figure out what was needed and how the end-product should function. Usually this involved academic clients –

instructors or customers who needed training products. My job was to look at their content, figure out how to translate it to a software program, and then map out on paper (or on screen using PowerPoint usually) a sort of diagram of the interface and sequencing of each “screen” in the software. Sometimes I would visit together with the software engineers about how to design a new feature of our locally crafted learning management system by discussing how it should function, what features or operability it should have, and how that would relate to the other existing features of the software. Once a feature or software product was prototyped, my job became testing the functionality, proofing the content for typographical or functional errors or interface problems and, usually, running it past the client for feedback and approval. I didn’t know it then, but I know now that the process we used was called *rapid prototyping*: envision, build, test, adapt, build, test, adapt, hand-off, and move on. In some ways, this process worked well. Lessons learned and tools built for one client could be ported over to a new platform and modified and re-used for a new client. But the process also lacked some of the protocols that I was trained formally to include, such as deep needs assessment and comprehensive post-delivery evaluation and assessment. Once we delivered a product to a client, we rarely looked back. Nevertheless, I had personal pride in the work and was passionate about each and every project we took on.

My other job duties included direct technical support and training – meeting one-on-one with clients and faculty in their spaces and places of work or leisure, in some cases – and walking through processes with them as they were carried out. Sometimes this occurred by phone. Sometimes it occurred online. Sometimes this occurred in group settings in computer labs. In many cases, it was painstaking work requiring intense concentration and patience, especially with those who were technology-averse. I didn’t always do this well and I didn’t

always successfully hide my boredom or impatience. I learned hard lessons and was humbled each time.

A third duty involved authoring technical documentation and training media, including videos. Over the course of my career, I authored several hundred documents and media pieces.

The work I accomplished there forms the backbone of my professional portfolio to this day. I learned a particular approach to instructional design working there that was based entirely on what worked in my experience in the field with actual clients. The focus was on developing products efficiently and solving problems quickly. The process followed a fairly predictable course of events.

First, I would meet the client and find out about their content. I would also try to find out as much as I could about their learners, or the end users, who would make use of the product that was developed. During this phase, it was important to listen well and take lots of notes. Most often, this would be the only needs assessment that I would get to do and sometimes the client was not directly in contact with the learners who would become the end users.

My second task was to master the content to the greatest extent possible. During this phase, I had to read, research and gather as much information as possible to become an “overnight mini-expert” about the content. Usually this also involved poring over whatever content materials the client had provided to me. Sometimes this also involved the client teaching me enough of their subject matter so that I could think about how to translate it. This process really appealed to the intellectual in me. I usually did well in this phase. I am a fast learner, remember most of what I read, and enjoyed becoming knowledgeable about so many different subjects.

During the next phase, I would build a blueprint. I had to create some kind of tangible written or visual representation of the finished product that I could use to convey the “product” design to the rest of the design team. This phase was the most difficult for me and the most time-consuming. During this phase, I had to interlace my understanding of the content with everything I was supposed to know about how the learner might want to encounter the information in order to fashion a blueprint for the curriculum. I’m not a graphic artist and I don’t do software engineering, but I know enough about each to have a sense of how to take those ideas and move them into a blueprint. I usually used PowerPoint for visual mock-ups. The project manager also developed a very functional written report template to outline product designs that also helped us to account for all of those other aspects of product development like budget, functionality needs, timeline, and an outline of the content that needed to be covered. I used Microsoft Word to write the scripts – either what was to be recorded by a narrator or the actual text information that would appear on screen. I was also responsible for proofing and correct terminology.

Once my blueprint was ready, I handed it off to the developers and technicians and sat back while other team members began creating the product prototype. I was blessed to work with talented artists and engineers whose realizations often exceeded my imagination.

Once the prototype was ready, I, and sometimes a sales representative, would unveil it to the client. As a team we had learned that many clients were best able to provide feedback to us when able to view an actual representation of the finished product. We usually began by developing a partial unit of content with significant, but not total, functionality, and then meeting with the client for a review of the product. Of course, the client usually had feedback for us and we would bring this feedback to the design team for revision. Usually this process was repeated

a couple of times until we got it right, according to the client. Finally, when the prototype was perfected, we would complete and deliver the finished product. Sometimes this also involved my support in the form of training for the client about how to use the product.

Once during this time, I participated in developing training software intended for Japanese college students. I was a fan of Japanese animation, but had a strong sense that this didn't really mean that I knew much at all about Japanese culture or the way that students in Japan would be accustomed to learning. I didn't know where to turn for information about this, save a friend, a White male American, who'd lived there and studied at a university in Tokyo for six months. He provided me with a book on cultural etiquette and some generalities about his experience of the other students. I did the best that I knew at the time, which wasn't much, to think about how to address culture in the context of my work. I did not consider my own preferences or approaches – as in – I didn't reflect on those or consider how those alone might affect what I was doing. I didn't consult any Japanese educators. I didn't meet with the client, in fact, until much later, at the unveiling of the prototype (nor was an opportunity to meet with them in the development process even an option). I did insist on the use of highly standardized English in our materials and narrations, purging every colloquialism and adding definitions to terminology wherever possible. I did insist on high-contrast visuals and imagery that reflected, to the extent possible, the message of the text on screen. I did insist on careful pronunciations and well-paced narrations. I was mainly concerned with the language barrier. I didn't know how to be concerned with any other aspects of the learning environment. I also never did receive any feedback to indicate if the clients liked the product or the extent to which it met the need or was educationally successful. I wonder about that to this day. It was also the first of a few

projects that left me asking the question of whether or not I had adequately met the needs of learners across cultures.

According to my formal training, instructional design was carried out in a very systematic and planned way. The process was formal. It should always begin with a needs assessment. During this step, instructional designer was supposed to spend time in concert with the client determining the scope of the project, the need, attributes of the learner or end-user, budget, timeline, deliverables, and even establishing the process by which success would be assessed. You could argue that this process was part of the first step I have already described above; but I recall one time when we brought the newly hired Professor of Instructional Design on board to help us with a project and he recommended a timeline that included a textbook needs assessment spanning 10 days, utilizing formal assessments and rubrics for measurement. In response, my supervisor merely scoffed at the suggestion. We typically spent only a handful of hours determining the client's needs. Furthermore, we did not use any formal instrumentation to measure need, but instead, relied on our ability to ask the right questions and take accurate notes, combined with our gut instincts and design skills. As I mentioned, there was never a place for formal assessment post-delivery. In all reality, I cannot say that any product I helped to design and deliver actually helped learners. All I can say is that the products I helped to design and deliver kept us gainfully employed.

But it is not my intention to convey negativity. In fact, I am immensely proud of many of the projects that I have been a part of and the products that were produced. Through them, I have honed and perfected many professionally valuable skills: (a) intellectual curiosity, (b) pedagogical awareness, (c) problem-solving ability, (d) patience, and (e) humility.

Intellectual Curiosity

As part of the regular course of my work, I had to master academic content with which I was unfamiliar and technologies or technological processes that were new to me. Sustaining this kind of activity required an on-going level of natural intellectual curiosity – a personal orientation to the joy in learning for learning’s sake.

Pedagogical Awareness

My background in education served me well. In the times when I was called to translate content to curriculum and curriculum to product, I relied heavily on the learning theories that I had learned as a teacher. Sometimes I implemented a linear approach – see/hear information, repeat information, test information. Sometimes I implemented an experiential approach – engage with simulated situation and access information as it is needed to engage. I also had to think about imagery, colors, textual cues, and screen placement as part of how the learner would encounter the learning environment.

Problem-Solving Ability

More than once, I had to figure out how to bridge a gaping distance between the need to accomplish a goal and access to the tools or resources to accomplish a goal. More than once, I had to apply the proverbial or hypothetical duct-tape to a situation. More than once, I had to learn a process or master a technology crash-course style on a right-now timeline.

Patience

I am a much more patient operator today than I ever was in my early career. Sometimes the client needed more time, more space, or more support to reach the goal. Sometimes clients changed their minds about the goal, and sometimes they expected me to reach goals on their behalf. I have learned to ask clients how much “driving” they wanted to do during the learning

process or how removed from it they wished to remain. Sometimes we spent a lot of time in the parking lot. Sometimes they handed me the keys.

Humility

Most of all, I have learned that I don't know it all. I didn't always fully realize what the client was really trying to accomplish until we'd gone down the road together some of the way. Despite my training and experience, sometimes my way wasn't the best way, and certainly not the only way. I've learned not to want an outcome more than the client. I have also learned to provide clients with a menu of attainable options and let them decide which direction we're headed.

But what was missing from this list of professional attributes had now become obvious to me. What was missing was what I might call an *instructional designer as ethnographer* approach. What was missing was relationship. In my work, I was concerned with the product and achieving the goal. In some cultural contexts this was more than simply a pleasantry. A client from a non-Western culture might well be as concerned with the relationship as the product. In this way, the Western-trained instructional designer might be ill-prepared. Building relationship requires the instructional designer to emulate the ethnographer, a perpetual cultural student. I realized that, as much as a working knowledge of technology, design processes and content were needed, the instructional designer must also apply careful skills of observation, of listening and building rapport and attention to the perspectives and preferences of the client. It was a humanizing of the process. It was a humanizing of the instructional designer and the client in a way that recognized that the process – the interchange – was as important, in some ways perhaps more – than the product that resulted. Through this relationality, the instructional

designer could gain insights into the way the product needed to be designed to meet the specific needs of the client, in a way that was more nuanced and resulted in a better fit.

Leaving Home to Return Home

All too soon, my weeks as an intern at the College came to an end and I was filled with mixed feelings. I hadn't expected to come to think of this place, so far away from my home, as another home. I remembered my first Monday, arriving late to the College after getting lost in the rain and the mud, and feeling overwhelmed by all the new: new faces, new location, new place, new smells, and being welcomed into the drum song as if I'd been there every Monday. I sought out the College president to express my thanks for the opportunity to study with them.

"Thank you for taking the risk to allow me to come in and learn with the staff and conduct my study," I said.

"It was not a risk. We know your father," he replied.

On that last day, I was waiting in a reception area for a last visit with an instructor when the men who play the drum songs arrived with their drum to rehearse. I sat and listened as they joked and sang together. After a while, they even invited me to sing with them and tried to teach me how to sing my part. It was a lot different than any singing I had done before, and I didn't do so well, but it was an honor to be invited, and we certainly all had a good laugh from the experience. When I thought about it later, I realized how far along this journey I'd come. That afternoon, like every Thursday afternoon, they sang another drum song to close the week in a good way. It was a fitting close for my internship.

CHAPTER 5: DISCUSSION

Introduction

The purpose of this chapter is to reflect upon the themes that emerged during the research journey and the implications for professional development and training of instructional designers. Just as the quilter seams the squares of fabric together to create a completed quilt, in this chapter I bring together my experiences in this research journey with the theoretical foundation provided by the Elders and scholars who have gone before me to create a completed contribution to our shared work. This journey began with three central study questions:

1. Do Indigenous educators perceive that information technologies are inherently colonizing?
2. In what ways are Indigenous educators leveraging information technologies to support Indigenous education, cultural preservation, community transformation, and increased access?
3. What are the implications for practitioners of instructional design in Indigenous educational contexts?

A review of the existing research literature revealed that no model of instructional design had been specifically developed from within an Indigenous cultural framework. I initially anticipated that field research as an instructional designer situated in an Indigenous educational context would manifest in experiences that could be translated into a model. Instead, the journey revealed to me that the model was of lesser consequence than the practitioner applying it. The journey revealed that rather than the external approach to instructional design – that is, to apply a systematic model to an instructional context – an internal approach was required – that is, a situated appreciation for and awareness of the local context and culture. As a result of the

analysis of the data, three key themes emerged from the data: (a) Indigenous identity development; (b) relationality; and (c) instructional designer as autoethnographer.

Theme: Identity

Through reflection upon the stories describing both my trepidations about this research journey and the ways in which other participants shared their own ways of walking between worlds, identity emerged as a theme in this study. A discussion of Native identity in America is necessarily complex and challenging, as one must take care to avoid the entanglements of essentialism and the recapitulation of problematizing of Indigenous peoples (Kincheloe & Steinberg, 2008; Smith, 2010). Contemporary issues concerning Native identity have both an historical context and are the focus of concerted effort on the part of Native educators to foster positive support for learners.

Identity and Education in Indian Country

The historical agenda of assimilation in Federal education initiatives for Indigenous peoples in the last few centuries was destructive to the cultural vitality of Indigenous communities. During the Federal era, from the mid-19th to the mid-20th centuries, Indigenous religious practices were outlawed and Bureau of Indian Affairs agents were instructed to “ban and break up tribal dances, religious ceremonies, and giveaways, even after Indians became U.S. citizens in 1924” (Treuer, 2012, p. 66). It was during this era that the American government shifted its invitational stance on tribal education and employed a coercive approach. As previously described, Native children were mandated to attend government-sponsored boarding schools, which often included long-term or even permanent separation from their families and tribal communities (Fixico, 2003; Lajimodiere, 2012). Moreover, many Indigenous scholars have documented countless incidents of severe physical and psychological abuses suffered by

boarding school survivors at the hands of teachers and school administrators (Fixico, 2003; Lajimodiere, 2012). As a result, some boarding school survivors were reluctant to pass along traditional languages and cultural customs to their children and grandchildren as a method of protecting the younger against further abuses (McKay, 2003). The effects of these policies upon Native communities forever changed the people, effectively leaving many as strangers in their own lands, and, for some, resulted in a disconnection from cultural identity (Fixico, 2003, p. 85).

As described by Stem Cook (2000):

When migration or radical structural transformation transfer an individual from one social structural context into another one, options afforded by the new structural context can threaten identities that the individual formed in his or her native structural environment. (p. 56)

Erik Erikson was one of the earliest Western theorists in the field of identity studies (Stevens, 2008). A descendent of Danish Jews, Erikson was himself a stranger to America, emigrating from Europe in adulthood. As a practitioner in the field of child developmental psychology, he was particularly interested in the development of identity (Stevens, 2008). Erikson (1950, 1963) identified “eight ages of man,” described as eight periods of a human lifespan that were characterized by fundamental dilemmas of identity, the proper resolution of which resulted in a healthy self-identity (p. 247). According to Erikson, five of these stages occurred prior to adulthood and emphasized the growing departure of an infant from his or her mother, towards an industrious sense of self as an autonomous individual. Erikson, a student of Freudian theory, asserted that at the center of many of these developmental dilemmas was a fundamental concern with bodily functions and genital control. Failure of the child to develop a balance between his or her own need to control basic sexual urges and bodily functions with

societal demands could result in maladaptive outcomes in adulthood (Erikson, 1950, 1963). The theory of the Eight Ages of Man is still recognized as important today and is commonly included in the curriculums of teacher education programs (Schachter & Rich, 2011, p. 222).

Erikson (1950, 1963) also spent significant time in ethnographic study of two Native tribes, the Sioux and the Yurok, and offered a dismal commentary on the possibilities for a viable Indigenous cultural identity in contemporary America. He wrote concerning the Sioux:

The few long-haired old men among the present inhabitants of these reservations remember the days when their fathers were the masters of the prairie who met the representatives of the United States Government as equals.... These Indians had learned to know the older generation of Americans whose God was a not-too-distant relative of the Indian's Great Spirit and whose ideas of an aggressive but dignified and charitable human life were not so very different from the brave and generous characteristics of the Indian's 'good man.' The second generation of Indians knew hunting and fur trading only from hearsay. They had begun to consider a parasitic life based on government rations their inalienable right by treaty, and thus a 'natural' way of life.... The third generation, who have had the full benefit of government boarding-school education and who believe that they, with their superior education, are better equipped for dealing with the white man. They cannot point to any basic accomplishment, however, beyond a certain superficial adaptation, for the majority of them have as little concept of the future as they are beginning to have of the past. This youngest generation, then, finds itself between the impressive dignity of its grandparents, who honestly refuse to believe that the white man is here to stay, and the white man himself, who feels that the Indian persists in being a rather impractical relic of a dead past. (p. 121)

Erikson's perception of the dilemma faced by many children of the assimilationist era, like many social scientists of his day, was entirely mitigated by the interpretive lens of deficit and wholly dismissive of the reality that those under his study had, in fact, survived a holocaust. Such bleak observations, written for Western audiences, while perhaps scientifically objective, were of no benefit to the communities under study, nor did they contribute to a restorative project (Smith, 2010). In contrast, Indigenous scholars have offered similarly dismal perspectives on the state of contemporary Western society and argued that striving to assimilate was not the solution to the quandary of contemporary identity concerns in Indian country. Vine Deloria (2003), a noted Indigenous scholar, wrote:

Skyscrapers do reach for the heavens...but they are placed helter-skelter on the ground with no apparent design and an inability to reflect the glory of the greater cosmic scheme. Taken as a whole, cities reveal the confusion of spirit that is the hallmark of modern industrial man. The city centers often reflect the values of society, and the presence of financial districts pretty much describes what our vision of the world and ourselves is. Today we flee these places and recapitulate them in the suburbs in massive shopping centers with automatic teller machines that connect us to the city's heartbeat. It is all so sterile. (pp. xi – xii)

Recent scholars have been more holistic in their study of identity. Holland, Lachicotte, Skinner and Cain (1998) rejected the dichotomy created when identity is considered only from either the cultural lens, wherein identity is construed as the expression of cultural values or beliefs, or the constructivist lens, wherein identity is considered in the context of social interactions with others and mitigated by social status. They contend that neither perspective accounts for the complexity of human perception or action, nor does it leave room for imagination or ingenuity.

Holland et al. (1998) instead provide an expanded view of identity, and consider *identity in practice*, that is identity that is both experienced and acted out, through four contexts:

- *Figured worlds*, which are social fields through which human interactions are negotiated and interpreted. Through this context, human identity is understood in “relation to – affiliation with, opposition to, and distance from – identifiable others” (p. 271);
- *Positionality*, a context strongly related to the figured world and considers the “power, status and rank” aspects of persons, one to another on the basis of such familiar attributes as gender, ethnicity, race, and social class (p. 271);
- *Space of authoring*, which is the degree to which and the resources, in the form of practices or discourses, available to an individual to respond to the reality, or world, in which he or she is found (p. 272); and,
- *Making worlds*, that is, the creation of new figured worlds through artistic and expressive activity, which in turn, create new social competencies (p. 272).

This multi-contextual view of identity suggests that as an individual person lives life, both internal perception and external action, that is, who we think we are and what we do, are mitigated by a complex interplay of personal beliefs, real and perceived opportunities, resources, competencies, external social forces, and our relationships with others, all of which can change over time (Holland, et al., 1998). “Identities – if they are alive, if they are being lived – are unfinished and in process” (Holland, et al., 1998, p. vii).

In the era of self-determination, tribal communities now wrestle with the complexity of the life between our ancestors and modern American culture. Native identity today is informed by relationships, heredity, traditional lifeways, and languages, all of which have been assaulted by the dominant culture (Treuer, 2012, p. 42). As described by Holland et al. (1998):

One can never inhabit a world without at least the figural presence of others, of a social history in person. The space of authoring, of self-fashioning, remains a social and cultural space, no matter how intimately held it may become. And, it remains, more often than not, a contested space, a space of struggle. The way in which identities take an intimate form...is still a political process. (p. 282)

In the case of Native identity this is most certainly salient, especially for those children and grandchildren of the diaspora who have become interested in their own Native heritage and struggle with what it means to be an “Indian” today (Garrouette, 2003; p. 4). As described by Erickson (1995), “members of oppressed groups are more likely to confront the ‘problem’ of authenticity than are those who inhabit the world of power and privilege” (p. 137). Popular American media offers essentialized images of the noble Indian or the savage enemy which are frozen in time (Treuer, 2012). Dr. Anton Treuer (2012) described an incident during a lecture tour in France, when one of the audience members asked him, “Where are the real Indians?” (p. 42). In response, Treuer offered:

I suppose he was looking for someone who just stepped off the set for *Dances with Wolves*. I replied, “Where are the real Indians? Where are the real Frenchmen? I don’t see anybody riding up and down the street on horses with shining armor. I don’t even see guys with berets and little pipes. (p. 42)

As explained by Horse (2005), Native identity is, therefore, highly politicized, as it is based, in part, upon dominant culture constructs that have been adopted by the Indigenous community at large. Eva Marie Garrouette (2003), a Native scholar who described herself as “a light-skinned, mixed-race person” with firsthand knowledge of the “scuffles over American Indian identity

from both a personal and scholarly perspective” (p. xi), identified four aspects of Native identity with which tribal communities must now contend.

Legal definitions of Indian identity based upon tribal membership (Garrouette, 2003, p. 15). Horse (2005) explained the Federal definition of Indian status is based upon membership in a tribe that is recognized by the American government. Although tribes themselves are free to determine how tribal citizenship will be recognized and documented, some of these practices still perpetuate the legacy of colonization (Garrouette, 2003; Horse, 2005). Some tribes rely on a concept of blood quantum, which derives from the outmoded and dubious field of eugenics, as determined by Indian ancestral descent, while others include familial relationship, parentage, or other norms as criteria. The federal government most often recognizes or requires blood quantum in its own definitions of Indian identity (Garrouette, 2003). Therefore, in the context of certain legislative acts, the Federal government recognizes, or fails to recognize, the legal status of tribal citizens. This is significant in terms of distribution of economic resources, or access to certain rights, or other legal protections or exemptions. Furthermore, tribal governments can revise or revoke citizenship through official action, an uncommon, but calamitous outcome for affected parties (Garrouette, 2003; Horse, 2005).

Biological definitions of Indian identity based upon genetic heredity (Garrouette, 2003, p. 39). Biological definitions are fairly straight-forward in terms of their assignment based upon ancestry, measured as blood quantum, that is, the degree to which one is directly descended from Native ancestors. Western policy makers once believed that biology also determined the degree to which one was likely to express certain cultural traits, and codified these beliefs in legislative acts governing Native and other non-White minority groups. As explained by Garrouette (2003), “modern biological definitions of identity...reflect nineteenth- and early

twentieth-century theories of race introduced by Euro-Americans. These theories...did not distinguish [biology] from culture. Thus, blood became quite literally the vehicle for transmission of cultural characteristics” (p. 42). High rates of intermarriage, together with natural genetic variation, has also complicated public perception of identity as those who “look Indian” according to popular conceptions of Indian appearance (Horse, 2005).

Cultural definitions of Indian identity based upon affinity for cultural and linguistic traditions (Garrouette, 2003, p. 61). Cultural identity is the degree to which one observes traditional lifeways, customs and belief systems, including fluency with an Indigenous language (Garrouette, 2003; Horse, 2005; Treuer, 2012). Definitions of Indian identity by cultural construct are difficult and potentially oppressive when they exclude those who do not fit stereotypes or pre-determined conceptions of “Indian” customs, and furthermore, perpetuate *and require* the maintenance of Indigenous societies as frozen in time (Garrouette, 2003, p. 68). Furthermore, as described by Ford (2013), categorizing an identity is inherently exclusive: to define what it is to be part of the group is to imply what it is to be excluded from the group, and further crystalizes an idealized identity (p. 4). Such definitions, if narrowly prescribed, serve to perpetuate stereotypes and are ultimately unachievable as “rules” for cultural conformity with which living persons in the modern world must contend (Garrouette, 2003, pp. 69 – 70). Many persons self-identify as American Indian, are culturally and linguistically competent, but cannot document legal status or affiliation with a federally recognized tribe. This last aspect of identity is closely tied to a fourth aspect of identity, as described by Garrouette.

Personal definitions of Indian identity based upon personal conviction (Garrouette, 2003, p. 84). This latter definition is, by far, the most contentious and encompasses those who do not meet established standards for biological or legal identity status, but nevertheless, are

compelled to express an Indian identity. Further complicating the identity landscape, there have been those individuals who have committed ethnic fraud for the sake of personal financial gain or to engage in or lead sacred ceremonies, despite dubious credentials. Garrouette (2003) expressed caution against automatic and summary dismissal of those who would claim an identity, with conscientious attention to risks, on the basis that Indigenous communities may benefit from the intellectual and economic contributions or specialized expertise or skills of those who sincerely wished to participate (p. 97).

Garrouette (2003) advocated a new approach to the Indigenous identity dialogue, which she called *radical Indigenism*, derived from the latin derivation of *radical* as implying “root” or “fundamental,” (p. 101), an approach that bases identity on Indigenous conceptions of relationship and the traditional conceptions of kinship. Garrouette explained:

I propose the following view about American Indian identity, which might be discussed in Native communities: individuals belong to those communities because they carry the essential nature that binds them to The People *and* because they are willing to behave in ways that the communities define as responsible. (p. 134)

She challenged scholars, in turn, to rethink how they have approached the issue of identity and explore issues from a base of Indigenous values, seeking methods that are healing and restorative, rather than problematic or divisive. Returning to the notion of *identity in practice* discussed earlier affords possibility of the realization of new and varied expressions of Native identity that are viable as communities move into the future. There is considerable cause for optimism; all is not lost. Despite concerted efforts to eradicate Indigenous cultures from the continent, much has been preserved. What was once known can be learned again and leveraged as communities move forward into the future.

While operationalizing a viable Native identity was not the focus of this study, the discussion of the complexity of the issue and the significance to the community was relevant to this discussion, in particular, as part of considering the larger project of Indigenous education. Erikson's dire assessments notwithstanding, educational systems have a role to play in fostering identity development because "aspects of identity are instrumental to the realization of educational goals and thus worthy of engagement" (Schachter & Rich, 2011). Through education, communities can support the development of positive, healthy identity amongst future generations of tribal members. As explained by Holland et al. (1998):

Forming an identity on intimate landscapes takes time, certainly months, often years....

Conceiving oneself as an agent whose actions count in, and account for, the world cannot happen overnight.... Forming an identity on social landscapes also take time – public and institutional time. (p. 285)

In the case of tribally-controlled systems of education, particular importance has been placed upon the inclusion of culturally relevant curriculum, as part of the larger decolonization project and reclamation of cultural vitality. Tribal colleges have been purposefully charged, often codified in institutional mission statements, with preserving and revitalizing traditional culture. Tribal college curricula emphasize and privilege the perspectives and cultures of their respective tribal sponsors (Boyer, 2008; Cole, 2010). If a purpose of Indigenous education is the restoration of cultural vitality and a positive contemporary celebration of Indigenous identity, then how shall the instructional designer, an ally of the educator, serve this agenda? It appears imperative that the instructional designer must align with the educator and in so doing, align with those values and aptitudes that represent the community vision.

Theme: Relationality

With intention, the methodology underpinning this study emphasized relationality and relational accountability. As previously discussed, relationality is a core value among many Indigenous cultures and a key aspect of an Indigenous research methodology. As described by Smith (2010), relationality is:

About establishing, maintaining, and nurturing reciprocal and respectful relationships, not just among people as individuals but also with people as individuals, as collectives, and as members of communities, and with humans who live in and with other entities in the environment. (p. 101)

As I entered the field, I took particular interest in building rapport with the community members and, as indicated by my own journal reflections, I was accountable both to those in the community and the Elders I represented. Stories from my research journey revealed additional aspects of relationality expressed among community members through visible means of the sharing of food, the use of humor in professional and familial interactions and the continuous emotional investment of the instructors in their students. Participants invested in me also. The times when participants used stories to teach me, rather than using either direct reproach or keeping their perspectives private from me, were examples of the investment they made to teach me in a traditional way that avoided shame but allowed for understanding through reflection.

It was respectful and ethical to reciprocate this investment. Smith (2010) explained, “the abilities to enter preexisting relationships; to build, maintain, and nurture relationships; and to strengthen connectivity are important research skills in the indigenous arena. They require critical sensitivity and reciprocity of spirit by a researcher” (p. 101). To maintain a clinical distance from the context was to insult the investment that others made in me as the journey

unfolded and an act of violence against the community that welcomed me. As described by Steinhauer (2002), “respect is more than just saying please and thank you, and reciprocity is more than simply giving a gift” (p. 73). Participating in the community meals and collaborating on local information technology endeavors were examples of the ways in which I sought to reciprocate with community members. Furthermore, as I collaborated with others around local information technology processes, the ways in which respect for local knowledge and collaborative communication were employed arguably shaped the nature of the process and the outcomes of the products developed.

If relationality is then a core value in the community, how shall the instructional designer reflect this value in his or her practices? It appears imperative that the instructional designer must seek reciprocal and respectful relationships with educators and community stakeholders as part of the process of envisioning and implementing learning environments. Regardless of the systematic instructional design model employed to carry out the functions of instructional design, the relationships among the people who carry out those functions and engage with the resulting products and environments may fundamentally shape the outcomes.

Theme: Instructional Designer as Autoethnographer

Ethnographic research is concerned with the descriptive study of group culture and is both a method and methodology, that is, a procedure and a product (Creswell, 2007; Fetterman, 1998). Central to ethnography, like other forms of qualitative research, is “making meaning”, in order to “understand the complexities of the social world” (Ellis, 2004, p. 25). Auto-ethnography is ethnography of the self (Ellis, 2004). Fieldwork is a core activity of the ethnographic research process (Fetterman, 1998, p. 8). The central purpose of the fieldwork associated with this study, an instructional design internship in a tribal college, was not simply to

study the systems and people at the Tribal College, but to study myself operating within that context. As I moved through the experience and performed my duties as an instructional designer, it was also necessary to perform the tasks of an ethnographic researcher, taking careful note of each moment as it was happening, even those that initially did not seem noteworthy. This study emerged as a collection of stories, some of which were co-created through the shared interactions of community members with me. In order to author the stories to share here, it was necessary to reconstruct the details of events, the context, the meaning and significance of those details. As I myself was a subject of the study, making meaning of the events required a self-reflexive frame of mind, a core element of autoethnographic research (Reed-Danahay, 1997).

Initially, my role as an instructional designer with assigned tasks was clearly distinct from my role as a researcher conducting the activities of making observations, field notations, and conducting interviews. This clarity did not persist. My efforts to build rapport for research purposes also created rapport for instructional consultations. My attention to communication patterns and relationships also revealed strategies for respectful and collaborative design practice. Reflection upon my role as a researcher and making meaning of the data necessarily lead to deeper insights about my disposition, training and practices as an instructional designer. Through self-analysis, I was able to deepen my own understanding of my own practice and significantly enhance my ability to apply my craft in more expert and nuanced ways. The journey was not always easy. As part of this reflexive action – sharing stories of my perceptions and practices and holding them up for analysis – I exposed my vulnerabilities and flaws, which opened this inner world to criticism. This discomfort was not without purpose, but an aspect of transformative learning. Transformative learning is “about change – dramatic, fundamental change in the way we see ourselves and the world in which we live,” and occurs at the

intersections of self-reflection and life experiences that challenge one's prior understanding (Merriam, Cafarella, & Baumgartner, 2007, p. 130).

Recently, I was invited to provide consultation to a post-secondary instructor, who asked me to review her implementation of an online course for the purposes of evaluation. We sat together in her office, a computer monitor before us, and I perceived a look of expectant apprehension in her eyes. It was our first meeting and I had not had the opportunity to peruse her content or her syllabus. We were not well acquainted and I did not yet have a sense of her goals or her teaching methods. My mind was taken back to the assumptions I once carried about instructional design and the wealth of instructional models at my disposal. I smiled and replied, "I can offer you some guidelines about best practices, but before we apply them to your course, I'd like to take some time to get to know you and understand your approach to your teaching."

The purpose of autoethnographic research, however, is not solely personal improvement; but rather, an understanding of the larger implications for practice (Atkinson, 2006, p. 403). The merging of the two roles of researcher and practitioner was synergistic, resulting both in my own ethnographic understanding of the local context, and also in global implications for decolonizing the field of instructional design practice.

Completing the Circle: Implications for Practice

This study began with three guiding questions:

1. Do Indigenous educators perceive that information technologies are inherently colonizing?
2. In what ways are Indigenous educators leveraging information technologies to support Indigenous education, cultural preservation, community transformation, and increased access?

3. What are the implications for practitioners of instructional design in Indigenous educational contexts?

With regard to the first study question, participants did not suggest or indicate that they perceived that the information technologies in use at the Tribal College were inherently colonizing. As described in Chapter 4, participants expressed attitudes about the benefits and detractions of information technology not significantly differentiated from peers at Western higher education institutions. While the Tribal College's mission statement clearly emphasizes valuing of Indigenous culture, the College also provides support for students to develop competencies required for success in the modern Western world. The literature concerning the potential colonizing effects of information technologies is considerable. The lack of data concerning participants' perception of colonization does not necessarily negate such effects, but may suggest that within this educational context, participants did not parse their own experiences of exercising Indigenous cultural identity from the exercise of Western competencies. Participants expressed views that suggest that, in general, technology was viewed as a positive resource that expanded opportunity and access. Ultimately, pursuit of more definitive findings on the colonizing aspects of information technology fell outside the scope of this study.

Concerning the second study question, participants demonstrated that information technology was utilized by the community and leveraged to support local educational goals and activities in varied ways. As described in Chapter 4, Tribal College instructors and staff employed digital technologies to support course instruction, communication with and among students, and to gain access to resources outside the community.

Findings of the study did suggest significant implications concerning the practice of instructional design, the emphasis of the third study question. Of particular note, the instructors

indicated that they expected an instructional designer to be not only a technical consultant, but also a cultural resource. The implication for instructional design practice was that instructional designers can more capably work in partnership with the educators who serve the community through the development of cultural competence. Cultural competence is enhanced when instructional designers employ ethnographic strategies to study the culture of the client and adopt a reflexive orientation to their own cultural positions and practices.

Bringing the three central themes – identity, relationality, and autoethnographic skill – together provides a framework for considering the implications for culturally competent instructional design practice, and a pathway for decolonization of the field of instructional design. This study emerged along a circular path. At the start of this journey, my identity was that of an experienced instructional designer, equipped with a solid foundation in a wide array of instructional design models and pedagogical knowledge, evidenced by the discussion of scholarly literature that formed the background for this study. As I entered the field, I purposefully adopted a reflexive stance concerning my practices and attitudes and sought out a relational methodology. Through relationship, I was positioned in a context where transformative learning and respectful practice could take place. Using autoethnographic research skills, I gained a greater understanding of and appreciation for the local and values, and enhanced my own identity as a more culturally competent instructional designer.

Freire (1970) described praxis as the “reflection and action upon the world in order to transform it” (p. 33). Kincheloe (1991) extended this idea, stating, “Critical research is praxis. Praxis involves the inseparability of theory and practice – i.e., informed practice” (p. 20). When educators engage in research that grounds them in the context of the learning environment, and brings them into relationship with learners, they are poised to harness their own expertise and

conduct their instructional practice in direct and specific response to the conditions of the context (Chen, et al, 1999; Kincheloe, 1991; Kinuthia, 2009). Leveraging research as a mechanism for professional development has been championed in the field of teacher education, as described by Kincheloe (1991):

One of the most important aspects of teacher education might involve the study of the processes by which teachers acquire the practical knowledge, the artistry that makes them more or less effective as professionals. When such inquiry is pushed into a critical dimension teacher educators address the process of how professional consciousness is formed, how ideology contributes to the teacher's definition of self. Without such inquiry and analysis teachers remain technicians, and teaching remains bad work. (p. 15)

Leveraging research strategies may be salient for the allied field of instructional design as well, providing a mechanism through which an instructional designer can advance from technician to culturally competent professional, positioned to work in partnership with educators, engaged together in the act of constructing compelling and responsive learning environments. As previously stated, Kinuthia (2009) urged instructional design practitioners to become "students of their own classrooms" in order to gain understanding of local cultural contexts (p. 268). Research in this context potentially becomes part of the decolonization project when the practitioner is operating in an intentionally Indigenizing pedagogical context and for the purposes of shaping their own cultural competence.

Autoethnographic research requires the application of ethnographic skills with a reflexive and introspective consideration of the implications of the external on the internal; the practitioner must be both knowledgeable about research strategies and skills needed for engagement and grounded in an ethical vision of their own teaching practices and purposes (Kincheloe, 1991,

p.15). The focus on self as the subject under scrutiny and consideration of the self in contextual relationship with others are aspects of autoethnography that are easily aligned with the Indigenous values of humility and relationality. For these reasons, autoethnography is a particularly suitable as an Indigenous research method.

The specific figuring of the *instructional designer as autoethnographer* builds upon existing theory. Thomas et al. (2002) recommended purposeful self-reflection on the part of the instructional designer as an important component of the design process: “As designers who not only interact with other cultures but design for and with other cultures, we must consider our own thoughts, beliefs, attitudes, desires, and feelings toward these cultures” (p. 44). Autoethnographic methods position of the human, in this case the instructional designer, as the “generator, collector, and interpreter of data” (Chang, 2008, p. 127). As research instruments, humans are far more capable of holistic, nuanced perception and interpretation of data concerning learners and the learning environment than any empirical instrument (Kincheloe, 1991, p. 29). Within the research environment, the researcher attends, in their own subjective judgment, to whatever is deemed as relevant, important, or worth note (Monaghan, 2012, p. 36). The ability to function as a human research instrument is mitigated by the cultural lens of the individual researcher.

As I described in Chapter 4, during my early years as an instructional designer, I had not engaged in the kind of critically reflective work necessary to tie together the cultural concerns of the my client communities together with my practices as an instructional designer. I was model-focused, and that without any thought or regard for my role as a seamstress in the work of quilting together a finished product. I was not able to see my own biases and limitations or properly frame the application of any instructional design model until I had done this reflective

work. To calibrate myself as an effective research instrument, I had to begin with myself.

Kincheloe (1991) described the relationship between the researcher and the researched this way:

The first step in such a process, as you might guess, is to understand the relationship between researchers and what they are researching. Where do we start such a process? I would argue that an awareness of self and the forces which shape the self is a prerequisite for the formation of more effective methods of research. Knowledge of self allows researchers to understand how social forces and research conventions shape their definitions of knowledge, of inquiry, of effective educational practice. Knowledge of the self allows them consciousness to choose between research traditions which depersonalize the process of knowing in hopes of gaining certainty, pure objective knowledge and research orientations which assert that since the mind of the observer is always involved, it should be utilized as a valuable tool. (p. 29)

When operating in historically marginalized communities, critical self-examination is particularly important. We tend to believe that our own way of doing something is “normal” (Monaghan, 2012, p. 36). This normalization of the self predisposes us to prejudice and misinterpretation of others, as explained by Agar (1994):

There are two ways of looking at differences between you and somebody else. One way is to figure out that the differences are the tip of the iceberg, the signal that two different *systems* are at work. Another way is to notice all the things that the other person *lacks* when compared to you, the so-called *deficit theory* approach. (p. 23).

Indigenous communities have long suffered the consequences of research based upon this deficit approach. Reflection for self-awareness equips the instructional designer to value and appreciate the cultural concerns of the client community, as described by Lynch and Hanson (2011):

Only when we examine the values, beliefs and patterns of behavior that are part of our own cultural identity can we distinguish truth from tradition.... Such an examination is not easy. It requires a consideration of all the things that we have learned from childhood and an acknowledgement that those beliefs and behaviors represent only one perspective – a perspective that is *not* inherently ‘right.’” (pp. 23 - 24)

Through the critical eye of self-reflection, I was empowered to perceive my own position with relation to others and within the context of our shared work.

Towards a Person Model of Instructional Design

As described by the literature, most existing models of instructional design define the action steps – analysis, design, development, implementation and evaluation – for creating learning environments and products (Sink, 2008). Collectively, these models could be categorized as *product models*, in consideration of the idea that the instructional designer applies a given model to the process of developing an end product, for example, an academic course or educational software program. Product models are staple curriculum in contemporary instructional design graduate programs and serve as important guides for daily professional practice.

Although mastery of product models is necessary, mastery alone does not equip the instructional designer for culturally competent practice. Returning again to the metaphor of the quilt provides a way to conceptualize a more holistic approach to instructional design. Although the skilled quilt maker may apply a detailed pattern during construction, the experienced quilt maker knows that no two completed quilts are identical, but are fabricated from the components at hand. The quilt pattern does not account for the variances in quilt squares or the nuance required to bind them together. Similarly, no two learning environments are identical: even

when end product goals are similar, such as the development of an online course, there will always be unique actors, relationships and a local cultural context that must be honored in the design process. I posit that what is needed to guide the instructional designer is a broader framework, a *person* model. A person model acknowledges the role of the practitioner as an actor in the instructional design process and recognizes the combination of mastery of product models together with other competencies necessary for a culturally competent instructional design process. Product models are not rejected, but woven into the larger fabric of practice within the person model.

There are many design variations, but one traditional star quilt design features a series of concentric circles of diamonds, culminating in double-pointed rays that emanate out in the four directions. The Star Quilt Framework for Culturally Competent Instructional Design, as depicted in Figure 2, utilizes this traditional design as a visual representation of the essential elements of decolonized instructional design practice. At the center of instructional design practice is the practitioner. Like the rays of the star, the aspects of practice highlighted in this study emanate out from the instructional designer and define the orientation to practice:

- Relational-reflexive approach: Describes the attitude of the instructional designer that seek relationship with others in the learning environment and commitment to engagement in self-reflective practice;
- Knowledge of existing instructional design product models: Recognizes the necessary application of established design models in the development of outcomes;
- Auto-ethnographic skills: To perceive local needs and values and recognize the implications for practice; and,
- The local cultural context: The values and viewpoints unique to each community.

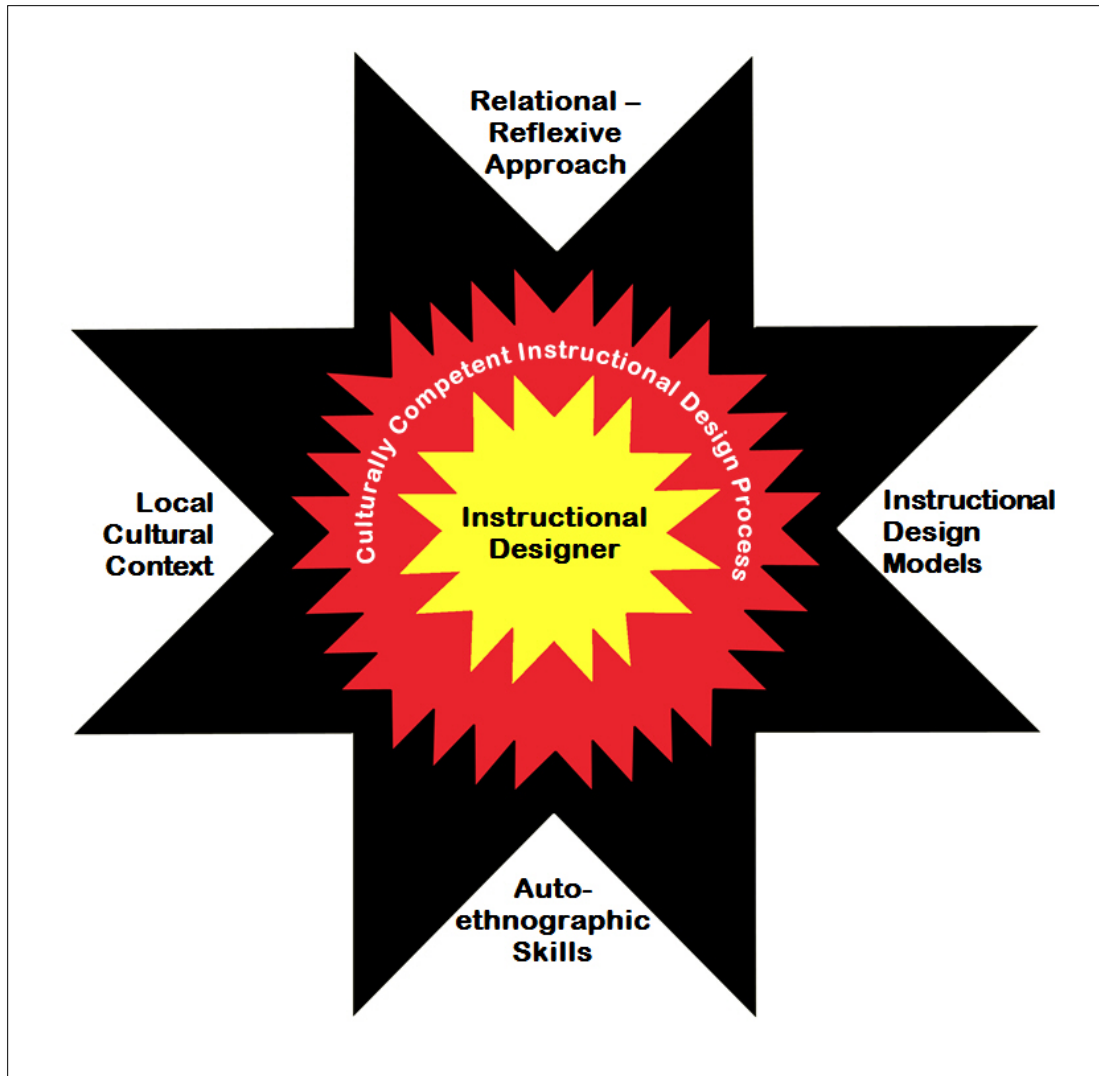


Figure 2. The Star Quilt Framework for Culturally Competent Instructional Design, a person model for practice. The traditional design of the star quilt provides a framework for the key components of a culturally competent design process.

Depending also upon one’s view of the star quilt, it is possible to visualize also that the rays are merging toward the center, suggesting bi-directional interaction. The star quilt features a dynamic design and the instructional design process is also dynamic. These key aspects of practice not only are utilized by the instructional designer acting outward from the self, but also influence the designer as he or she reflects upon them. Although the focus of this discussion has been on the instructional designer, in practice, the process of designing learning environments is

a collaborative and iterative process, involving relationships among all of the people who are engaged in the process and the outcomes and interaction with the context. The colors chosen in the framework – black, red, yellow and white – are symbolically important in many Indigenous cultures and reflect the Indigenous orientation of this framework.

Directions for Future Study

This study suggested that through the application of auto-ethnographic research, instructional design practitioners are equipped for more culturally competent practice. The study findings culminated in the Star Quilt Framework for Culturally Competent Instructional Design, a *person* model for practice, which recognizes the instructional designer as an actor within the design process. Nevertheless, broad assertions based upon the experiences of one instructional designer cannot be sustained, but do suggest new avenues for further inquiry. Creation of a curriculum for instructional designers founded on instruction in autoethnographic methodologies, together with experiential opportunities for reflective practice may yield greater insights into the effectiveness of research as a mechanism for culturally competent professional development. There are also opportunities to examine whether or not this approach would also benefit other instructional designers serving the community in this study or in communities with other cultural contexts.

Closing the Ceremony

To bring this study to a close in a good way, I must conclude properly. An honor ceremony concludes with the presentation of the quilt and all friends, guests, family and loved ones gather to embrace the one who is honored. In like fashion, I offer this completed study to the community to honor them, along with a warm embrace to show my appreciation and thanks.

The central goal of this study was to build awareness of ways of being, knowing and doing instructional design and technology integration that positively supported Indigenous education communities. The intended outcomes were to provide a living record that may be of relevance to many Indigenous educational communities and to support the future training and professional development of the next generation of Indigenous educators. The Ojibwe people have a wise expression – *Gakina awiyya* – translating roughly as “We are all related.” The expression here also stands as a truth. I did not conduct this research endeavor alone. The effort and the outcomes encompassed a circle of relations all around me and it is to their honor I have dedicated the endeavor.

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APPENDIX A: SAMPLE INFORMED LETTER OF CONSENT

North Dakota State University
School of Education
Family Life Center Building
1400 Centennial Blvd.
NDSU Dept. 2625
PO Box 6050
Fargo, ND 58108-6050
701-231-7085

Title of Research Study: Decolonizing Instructional Design Through Auto/Ethnography

Dear Participant:

My name is Lyn DeLorme. I am a graduate student in the Occupational and Adult Education Ph.D. program at North Dakota State University and a member of the Turtle Mountain Band of Chippewa. I have a background in elementary education and have been an instructional designer at the University level for several years, assisting faculty to utilize technology in their classrooms and online courses. I am conducting research on the ways in which technology supports Tribal higher education. Technology use in our Tribal colleges is not new but very few Indian researchers have examined how the technology is used in the daily work of teaching in a Tribally-controlled college. Few instructional design training programs prepare their graduates to think about cultural values. It is my hope that the data gained from this study can be used to help prepare future educators and technologists who are more culturally competent.

Because you are a member of the educational community at this Tribal College you are invited to participate in this research. During the next few months, I will be working here with you and other community members, serving as an instructional designer. During this time, I can provide assistance to you to support your use of technology. With your consent, I will make observations and document my work with you to learn about how technology is used here. My observations will include classroom activity and consultations and conversations as part of our work together. I am interested in how you use technology both to prepare instructional and course materials and to deliver instruction. Additionally, I will also make records in the form of observational notes of the types of technical training or instructional consultation that I provide to you. My intention is to use this information to consider the ways in which instructional designers might be most effective.

Additionally, you have the opportunity of sharing your own experiences and perceptions with me, formally through interviews, or informally through conversation. In certain cases, with your consent, I will request to make audio recordings of our conversations so that I can make an accurate record of our conversation. The recording will be erased and the associated transcript will be stored in a locked cabinet, separately from this consent form, in a limited access facility. You will have the opportunity to review any recordings or transcripts that I make to assure that your contributions are accurate. My study is not intended as an evaluation of your work or the quality or merit of your practices. My study is not part of any evaluation effort by your supervisors or employers. Your participation is strictly

voluntary and has no bearing on your employment status or my willingness to assist you as part of my duties here. There is no financial compensation offered to participants. There is no penalty for declining to participate. You may also change your mind about participation at a later time without penalty.

If you choose, I will keep private all research records that identify you, to the extent allowed by law. Your information will be combined with information from other community members; I will write about the combined information that I have gathered. You will not be identified in these written materials. I may publish the results of the study; however, I will keep your name and other identifying information private. Only myself, my doctor research advisor, and those who audit IRB procedures will have access to the data.

As a researcher, I know that sometimes new knowledge will come from the conversations and experiences that you and I will share. If you wish to be identified specifically for certain contributions that you make to this study in whole or in part, I will honor your request. In such an instance, your identity will be linked with the contribution(s) for which you wish to be credited.

You are encouraged to ask any questions concerning this research. Please contact me directly, by email: lyn.delorme@ndsu.edu or by phone at (000)000-0000. You may also contact my doctoral advisor, Dr. Claudette Peterson, School of Education, who supervises my study at (701)231- 7085 or by email at claudette.peterson@ndsu.edu.

You have rights as a research participant. If you have questions about your rights or complaints about this research, you may talk to the researcher or contact the NDSU Institutional Review Board (IRB) at 701.231.8908, ndsu.irm@ndsu.edu, or by mail at: NDSU IRB, NDSU Dept. 4000, P.O. Box 6050, Fargo, ND 58108-6050.

If you agree to participate, please indicate your consent by signing.

“I hereby acknowledge that I am willing to participate in this study. I understand that I may terminate my participation at any time.”

Participant Signature

Date

Thank you for your taking part in this research. When results of the study are available, I will provide them to you.

Researcher Signature

APPENDIX B: PARTICIPANT INTERVIEW PROMPTS

1. Tell me about your work here.
 - a. In what subject area do you teach?
 - b. How long have you been teaching?
 - c. How long have you been teaching online?
2. How large are your class enrollments, typically?
3. How would you describe the format of your course – what kinds of activities typically occur?
4. Please describe the teaching or learning goals for the course:
 - a. What do you hope students get out of the course?
 - b. What are your goals as you are teaching it?
5. If you were speaking to someone who didn't know anything about being an educator in a tribal college, what would you want them to know?
6. What kinds of technology do you use in your work here?
7. What are some ways that technology supports your work as an educator?
8. What are some ways that technology hinders or interferes with your work as an educator?
9. Discuss your perspectives on the role that technology support staff play or could play in supporting your work as an educator.
10. Discuss your perspectives on the role that technology plays or could play in supporting the needs of the Tribal College community.
11. Describe your personal preferences for learning about technology.
12. What is your definition of cultural competence?
13. Some research literature has listed four ways that technology is used in tribal communities: 1) for Native education, 2) to maintain cultural relevance, 3) to foster community transformation, and 4) to promote increased access.
 - a. How do you define these?
 - b. How might technology be used to promote or interfere with these?
14. An instructional designer helps an instructor to design educational experiences that help students learn effectively. Sometimes this also includes the use of digital technology. If you could wave a magic wand would you want to have your own instructional designer?
15. What would your expectations be?