Instructor Research Modeling to Develop Globally Competent Researchers in the Digital Age: Follow Me!

DSI INNOVATION PAPER COMPETITION

XX & XX

4/1/2012

ABSTRACT

This paper details an instructor research modeling approach designed to impact intercultural sensitivity development (ISD) for millennial graduate student researchers completing a Master's Thesis at a Midwestern University in the Digital Age. An apprenticeship model, facilitated as a "Follow me!" approach, guides research instruction and ISD to maximize the benefits to stakeholders in the global research community. Novice graduate student researchers develop intercultural skills through online social interaction by participating in authentic research activities modeled by the expert instructor/researcher. "Follow me!" engages participants in social interaction via online digital tools such as email, discussion forums, and a social media application (i.e., Twitter) to "shift" participants on the intercultural continuum. The university approved mixed-methods pretest-posttest research design includes the use of a valid and reliable quantitative instrument, the Intercultural Development Inventory (IDI), to measure ISD, Myers-Briggs Type Indicator (MBTI), to ascertain personality type, and qualitative methods to explore the impact of course design and delivery. Four case studies, crafted from multiple quantitative and qualitative informant data, reveal aspects of intercultural effectiveness indicative of higher ISD. Preliminary case study analysis from course artifacts, observations, and interviews suggest that "Follow me!" is positively regarded, engages the subject matter, bridges theory and practice, and potentially fosters more globally competent researchers. Graduate student researchers with higher levels of ISD could be better equipped with online digital tools to enhance cultural fluency in order to submit proposals, present results to global audiences, and share research findings as new members of the educational research community.

Key words: intercultural sensitivity development, instructor research modeling, online digital tools

Introduction

Topic or problem toward which our approach is focused

Education researchers in various disciplines such as business management and health care administration have been calling for more studies to address intercultural sensitivity development (ISD) for graduate students (Adams & Morgan, 2007: Arbaugh & Warell, 2009). A growing number of graduate students are unable to handle the complexities of conducting, implementing, and disseminating research across intercultural contexts due to the lack of a global mindset. This study addresses this deficit by exploring the impact of instructor research modeling to develop novice graduate student researchers' professional identities to include aspects of intercultural communication competence (ICC).

Chen and Starosta (2008) suggest that ICC allows individuals to negotiate cultural meanings and to execute appropriately effective communication behaviors that recognize multiple identities in specific environments. It follows then, that millennial graduate students in the Digital Age, should be competent participants who know how to interact effectively and appropriately with other participants in "digispace" as well as fulfill communication goals by respecting and affirming the multilevel cultural identities with whom they socially interact. Like the real world, this new frontier, or digispace culture, exists with evolving rules and laws of normative behavior. Millennial graduate students should learn how to act in this "Twitterverse" as curators of identities and resource engineers (Whitcomb, Bryan, & Dib, 2010).

Therefore, the aim of this "Follow me!" approach is to promote participants' abilities to acknowledge, respect, tolerate, and integrate cultural differences in a way that reinforces participants' researcher identities to include these multiple communication perspectives. The course's online digital tools are used to enhance cultural fluency by embracing various cultural environments and utilizing diversity for understanding and growth. The instructor/researcher

incorporates the realities of conducting research by modeling the entire research process. To that end, we use online digital tools (e.g., email, discussion forum, and a social media application, i.e., Twitter) to acquire resources and cultivate strong cross-cultural collaborative connections to facilitate ICC and the acquisition of ISD. In addition, we invite guest researchers who have worked within multicultural workforces, handled international assignments, and dealt with people of differing cultural backgrounds to face-to-face meetings to broaden and deepen understanding of intercultural research skills. We argue that instructor research modeling, exposure to a variety of guest researchers, and intercultural coaching using online digital tools, could help novice graduate student researchers develop intercultural research skills that include genuine open-mindedness, empathy, and a curiosity for alternative perspectives when formulating, proposing, conducting, and knowledge-sharing in the global research community.

Level of students toward which our approach is focused

Four female graduate students pursuing a Master's degree at a Midwestern University enroll in this Research Methods course, sign the informed consent, and agree to participate in this mixed methods study prior to the first day of class. Once enrolled, a letter of confirmation and information about the study is sent via email. Participants select pseudonyms to link course data and protect anonymity. Multiple data collection methods are used to address the research question: **How does this instructor research modeling approach impact novice graduate student researchers' intercultural sensitivity development**? To safeguard against any instructor/researcher bias, a secondary author is selected to ensure the trustworthiness of data and provide critical reviews of analysis and interpretation. As Director of Educational Technology and Innovation (CETI), this secondary author serves as a peer reviewer and online course lurker. In addition, all data collected from participants does not affect course grades and assessments

follow syllabus guidelines. Informed consents are stored in a locked file cabinet along with all documents associated with this research project. Participants are allowed to withdraw from the study at any time and all pertinent data is then eliminated from the study. Our intention is that all participants benefit from the study and develop greater intercultural sensitivity, which in turn fosters more globally competent researchers to conduct, implement, and disseminate educational research in the new millennium.

Number of students with whom the approach has been used

In January 2012, the primary author/instructor/researcher was appointed to teach the required graduate 'Research Core' at this Midwestern University. The secondary author, the university appointed educational technologist, helped to establish the appropriate online digital tools used in the course. While the focus of this paper is only on the first semester course designed to guide four participants from Master's Thesis proposal stage to Chapter One draft completion (January 25th to May 9th), this study could be extended over three consecutive semesters culminating in Master's Thesis completion and May 2013 graduation. Therefore, the limitations from the outset, discussed in *Transferability and implications for educators*, include the short time frame and small sample size.

Participants complete the Myers-Briggs Type Indicator (MBTI) (Briggs-Myers & Briggs, 1985) and the Intercultural Development Inventory (IDI) (Hammer, Bennett, & Wiseman, 2003) prior to instruction and submit to an interview in the first week of the semester. Participant demographics in Table 1 reveal that four female European Americans with various job descriptions enroll in the course with an age range of 22-32. Two participants have previous global work/online experience, middle level ISD (as indicated by the IDI), extraverted MBTI, and provide a higher degree of description in first interviews (thick description). These

individuals, Nick and Irene, are purposely separated and grouped with other participants for teamwork activities. Hence, Nick, a higher education professional, is paired with George, a health fitness coach, while Irene, a middle school teacher, is paired with Jeba, an elementary school teacher.

The IDI pretest score is a measurement of overall developmental intercultural sensitivity or developmental stage (DS) located on the intercultural continuum (Bennett, 1986). IDI pretest scores are derived from IDI responses which are coded and analyzed by IDI software. DS scores range from 55 to 145, with higher scores indicating greater ISD (Hammer, 2004). Stage One - Low (55-85), Stage Two - Middle (85-115), and Stage Three - High (115-145), represent three levels of DS progression located on the intercultural continuum (Bennett, 1986).

Table 1. Participant Demographics

European-American Female Participant	Age	Job Description	IDI Pretest Score	MBTI	Global/Online Experience	Thick Description
Nick	22	Higher Education Professional	Middle -113.88	ENTP Extraverted	Yes/Yes	Yes
Irene	29	Middle School Teacher	Middle - 93.73	ENFP Extraverted	Yes/Yes	Yes
George	32	Health Fitness Coach	Low - 82.28	ISTJ Introverted	Yes/No	No
Jeba	25	Elementary School Teacher	Low - 77.56	ISFJ Introverted	Yes/No	No

Major educational objectives of our approach

There are ten major educational objectives detailed in the syllabus: 1) become familiar with the process of educational research, 2) compare and contrast various research methods, 3) develop a deeper understanding of specific research methods, 4) use specific research to

highlight similarities and differences, 5) understand steps of the research process, 6) demonstrate critical review skills and an understanding of various research paradigms, 7) generate a set of research questions for an educational research study, 8) apply methods and relevant theoretical perspectives and concepts to a research plan, 9) complete and submit Institutional Review Board (IRB) Compliance Form, Research Plan, and Chapter One draft, 10) learn to write and present academic research for educational conferences (e.g., American Educational Research Association (AERA), Decision Sciences Institute (DSI)). The purpose of this research project is to study the impact of instructor research modeling on ISD.

However, the reader should note that particular attention is given to the tenth objective: *Learn to write and present academic research for educational conferences (e.g., AERA, DSI).* While some novice graduate students may find this objective quite ambitious, this is an overarching goal of the course. The primary author/instructor/researcher's bias is to teach research writing and presentation skills to prepare graduate students for educational conferences and promote knowledge-sharing in the global research community. Therefore, this research paper and all aspects of conducting this research project are shared with participants.

Case study development helps to fill the gap as there are few research studies that explore the impact of instructor research modeling to facilitate ICC and the acquisition of ISD. This is a multi-phased project using both quantitative and qualitative methods. The quantitative phase of the study is a pretest-posttest of intercultural sensitivity using the IDI. Participants also complete the MBTI to ascertain personality type; we reason that an extraverted personality is more forthcoming about course design and delivery and provides thicker description in interview data. Therefore, the second phase of the study includes the purposeful selection of extraverted informants for two subsequent interviews in week seven and fourteen. The interviews are

conducted in the Graduate Center classroom prior to or after face-to-face meetings. All interviews are transcribed for accuracy. In-depth interviews are designed to gather additional data on personal and professional attributes, as well as obtain insights into the nature of the acquisition of intercultural sensitivity. Course artifacts, observations, and interview data are collected over the fourteen-week period and are printed to hard copy to be maintained for research purposes.

Innovative and unique features of our approach

"Follow me!" is designed and delivered as the first research methods course in a series of three Research Core courses required for Master completion at this Midwestern University. This introductory Research Methods course explores perspectives and issues related to educational research as a basis for improving professional practice, scholarship, and intellectual development. The purpose of this course is to broaden participants' professional identities to include conceptualizing and proposing research. Therefore, we showcase the importance of research community participation and demonstrate the research process by undertaking this simultaneous research project within the context of the course. For example, the writing of this DSI paper, and submitting it for blind review, is an example of this research modeling process. We have modeled all assignments by providing copies of IRB paperwork, informed consents, and the research proposal. In addition, we have illustrated the mechanics and formulation of a problem statement, a review abstract, and a literature review. Email reflections with instructor/researcher feedback serve as intercultural coaching tools to facilitate the development of participants' intercultural conscious as it relates to the formulation, development, and the ultimate dissemination of research projects. We suggest that by systematically integrating the richness of cultural diversity, novice graduate student researchers could reach meaningful

learning objectives (Rosinski, 2011) and unleash significant potential as globally competent researchers. Hence, the apprenticeship model (Dennen, 2003), facilitated as a "Follow me!" approach, is used to leverage multiple intercultural perspectives to achieve greater creativity, purpose, and impact as participants adapt and transition into professional researcher identities.

Qualitative data analysis using a case study methodology triangulates the data and determines how this instructor research modeling approach contributes to participants' ISD. The analysis uncovers how participants think before, during, and after the fourteen-week research course and focuses on how instructor research modeling could impact ISD and produce a cadre of more globally competent researchers. Intercultural sensitivity levels are examined and measured by the IDI. Other course assessments include the MBTI, mid-course surveys, final course evaluations, post-course surveys, and university required instructor evaluations. The anticipated date for project completion is July 2012. The additional post-course follow-up is needed to fully address the study's implications, results, and conclusions. Since this study is currently ongoing, the reader should note that participants completed the MBTI and IDI during the first class meeting on January 25, 2012. They have also submitted three email reflections, two review abstracts, IRB proposals, and informed consents along with a variety of other coursework that are described in more detail later in this paper. The analysis explores whether participants' "shift" from a low to middle, or middle to high level of ISD on the intercultural continuum (Bennett, 1986) as a result of course design and delivery. The research is designed to gain a better understanding of how participants prioritize and think about intercultural sensitivity when conducting, implementing, and disseminating research and how this instructor modeling approach could be improved to develop globally competent researchers. The study's findings are used to uncover effective strategies that facilitate ICC and the acquisition of ISD to help novice

graduate student researchers, conduct, implement and disseminate research that is transferable, reproducible, and accessible across cultural contexts. The preliminary results are tentatively reported at the DSI conference in San Francisco and the study's findings are tentatively submitted for publication.

Relevant Literature

We begin the first section with a description of ISD and the role that it plays in the global research community. This includes a discussion of the primary author/instructor/researcher's bias and adult education philosophy as it relates to graduate course design and delivery. Second, we discuss the meteoric rise of online digital tools (i.e., Twitter) for social interaction to enhance graduate student learning. Finally, we present the rationale for a case study methodology.

Intercultural Sensitivity Development (ISD)

Intercultural sensitivity is the ability to communicate more effectively across culturally diverse groups, understand one's own and another's cultural identity, and reconcile cultural difference in ways that maximize benefits to all stakeholders (Bhawuk, & Brislin, 2000). Educators across multiple disciplines recognize the need to develop courses dedicated to addressing ISD and focus specific curriculum components to teach particular skill sets (Arbaugh & Warell, 2009; Adams & Morgan, 2007).

Relating directly to personal, interpersonal, and attitudinal development, ISD is considered a soft skill that leads to ICC as one's experience of cultural difference becomes more complex and sophisticated (Bennett, 1986; Chen & Starosta, 2008). Higher levels of ISD could enhance one's ability to propose, conduct, implement, and disseminate research to global audiences. For example, the AERA, the most prominent international professional organization composed of over 25,000 members, has a

primary goal to advance educational research (See http://www.aera.net/). This professional organization encourages its members to be more sensitive and understanding of cultural differences and solicits conference proposals that comply with ethical standards and appeal to global audiences. Similarly, the DSI, a professional organization of academicians and practitioners, provides an international forum for presenting and sharing research in the study of decision processes across disciplines. Novice graduate student researchers should be exposed to a variety of research agendas and writing projects to advance the science and practice of decision-making grounded in an inclusive and cross-disciplinary philosophy (See http://www.decisionsciences.org/). Graduate student researchers completing the Master's Thesis with higher levels of ISD could be better equipped with cultural fluency tools to submit proposals, present results to global audiences, and "openly share their findings" (Creswell, 2012, p. 24) as new members of the educational research community.

While the theoretical and conceptual frameworks proposed by several authors suggest that online digital tools used for intercultural coaching are highly supportive methodologies for facilitating the acquisition of ISD (Cook, 2008; Hammer, 2004; Rosinski, 2011, Warell, 2009; Ziegahn, 2005), no studies to date explore research modeling on ISD. Furthermore, previous research on ISD focuses on the characteristics of an individual's intercultural effectiveness (Adler, 2002) or how to best assess and develop "foundational" intercultural competencies (Mendenhall, 2008). Several studies examine intercultural effectiveness by using instruments to identify factors that could be used as predictors of successful intercultural performance (Hammer, Bennett, & Wiseman, 2003). Other studies focus on the role that cultural difference plays in communication interactions as a workforce solution for transcending ethnocentrism (Paige, 2003). Despite these aforementioned studies, Mendenhall and colleagues (2008) suggest that there is no conclusive research to show which methods are most effective or which educational alternatives can ensure across the board successful outcomes. In addition, the link

between ISD and specific online digital tools for intercultural coaching is not reported in the literature. Therefore, the results of this study will shed light on how instructor research modeling via online digital tools for intercultural coaching supports that assertion and strengthens the argument that ISD could be impacted, thus, preparing novice graduate student researchers for a place in the global educational research community.

Online Digital Tools

Online digital tools have been used by higher education instructors to enhance graduate student learning since the inception of Web 2.0. Often used as active and informal learning methods to engage students with subject matter, instructors often use these online digital tools to improve graduate students' interactions in peer-to-peer discussions inside and outside the classroom (Kassens-Noor, 2012; Arbaugh & Warell, 2009). Twitter is an example of a free Web 2.0 application with meteoric growth as a popular microblogging tool that allows people to communicate by exchanging quick and frequent short messages of up to 140 characters. Online posts from mobile phones, emails, and online messaging known as "tweets" can be instantaneously received by members of the Twitter community.

Recently, Twitter as a higher education teaching approach was not found to provide the same benefits as reflective writing assignments (Kassens-Noor, 2012). Due to the nature of Twitter's global reach and lack of anonymity, the author suggests that Twitter members primarily used it to update its followers by briefly answering the question: "What are you doing?" Since the syllabus for this introductory research methods course required two Spring Breaks with no face-to-face class meetings (March 7th and April 11th), we decided to implement informal online Discussion Forum and Twitter sessions. These online digital tools used for instructor/researcher intercultural coaching could lead participants to provide optional "reality checks" or updates about their research projects and ask pertinent research questions regarding research design proposals. We designated appropriate online

Discussion Forums and created a Twitter hashtag (#) to maintain the course participant list. The course hashtag provides a way to aggregate course-related tweets. We reason that using these online digital tools for intercultural coaching could improve our abilities to communicate with participants and build deeper collaborative connections with greater opportunity for ISD beyond the classroom. Chiu, Hsu, and Wang (2006) note that virtual communities such as Twitter provide self-directed learners a social network to interact, share information and knowledge, and engage in social interactions in an informal way. These real-time posts could expand participants' thinking about the research process just as international travel could expand one's cultural perspectives (Whitcomb, Bryan, & Dib, 2010).

Case Study Methodology

Creswell's fourth edition textbook, *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research* (2012) is used for this graduate Research Methods course and provides the study's framework. Creswell suggests that a knowledge claim means that researchers begin a project with certain set of assumptions about how they will learn from informants as well as what they will learn from the informants during their inquiry process. Since this research is conducted using an interpretive approach, knowledge is assumed to be socially constructed. That is, individual participant experiences are assumed to lead to multiple meanings and complexities. While we use a convenience sample of four informants representing a narrow range of experiences and demographics (see Table 1), we ask a wide range of open-ended questions through in-depth interview procedures to make inferences about the novice graduate student researcher culture. We then showcase selected informants using the principles of ethnographic research to guide this approach. This inductive process requires interaction with informants using recursive methods to build theories to explain behaviors and beliefs about the impact of instructor research modeling on ISD. We reason that selected informants provide a rich and deep perspective, or thick description, of the role of the novice graduate

student researcher. That is, what participants say, the way participants act, and from the artifacts participants use are valuable sources to generate data, which are then be analyzed to arrive at grounded theory. Any disconfirming data are then reviewed and any additional questions are then formulated until discrepant items requiring clarification are addressed. The terms used to describe this process are referred to as grounded theory by Glaser & Strauss (1967), and domain and structural analysis by Spradley (1979). Although different terms are used to describe the process of theory building in this type of research, initial interviews and observations provide the basis for further investigation and elaboration. The data are revisited through a continual cycle of analysis and data collection until emerging themes tell the story of participants' ISD in the Research Methods course (Warell, 2009). It is expected that participants develop higher levels of ISD by engaging fully in all aspects of course design and delivery and that emerging themes relate to examples of intercultural effectiveness, such as a *nonjudgmental outlook*, *introspective reflection,* or *behavioral flexibility* (Cornes, 2008).

A qualitative research design is used because it takes place in the natural setting (i.e., graduate student classroom) allows for detailed study, and is based on the actual informant experiences (a novice graduate student researcher). Creswell (2012) suggests that qualitative approaches are most appropriate when data emerges as the study progresses. He stresses that an unfolding research model makes it difficult for the researcher to have a prescribed literature review since data emerge throughout the fieldwork process and working assumptions need to be made and revised.

Innovation

Instructor research modeling and its suitability for developing globally competent researchers includes the implementation of six inherent course features; 1) expanding the length of time as primary facilitator, 2) incorporating the role of intercultural coach, 3) including synchronous course components, 4) providing clearer expectations, 5) structuring purposeful teams, and 6) enriching course content.

First, the primary author/instructor/researcher is also the primary facilitator for three consecutive semesters with the same participants and models the entire research process from proposal stage to reporting results. Second, we incorporate intercultural coaching via asynchronous emails and discussion forums and provide extensive feedback by calling participants' attention to intercultural effectiveness. Third, we include synchronous social media Twitter sessions and enhance social interaction among and between participants. Fourth, we provide clearer expectations and scaffold learning for each assignment. Fifth, we structure purposeful teams using IDI and MBTI results and create heterogeneous teams to elicit multiple perspectives. And sixth, we enrich course content and address participants' learning style differences, create a more visually stimulating environment, and ultimately improve course engagement.

To illustrate an exemplary learning activity using this innovative "Follow me!" approach, a video clip, produced from the instructor/researcher's personal research experience in Brazil, models data collection and interviewing skills with American and Brazilian nationals. The video clip demonstrates cultural value dimensions and a discussion ensues to identify various cultural differences between the United States and Brazil. This activity encourages participants to think about cultural differences in ways that could facilitate interactions with other researchers from diverse cultural backgrounds. A myriad of similar learning activities emphasize the importance of disseminating research across cultural boundaries and implementing research practices demonstrative of intercultural effectiveness.

Implementation

In order to implement this study, university IRB paperwork was submitted and approved. Four female participants with chosen pseudonyms (Nick, Irene, George, and Jeba) voluntarily enroll in this graduate level course and commit to approximately seventy-two hours of coursework over a fourteen-week period beginning January 25, 2012. The three-credit graduate research course status requires

participants to complete a minimum of thirty-six hours of instruction and thirty-six hours of course preparation. We collect quantitative and qualitative data using Pre- and Post- Intercultural Development Inventories, Myers-Briggs Personality Tests, Mid-course Surveys, Final Course Evaluations, Email Reflections, Twitter Posts, and Discussion Forum Posts, Interviews, Post-course Surveys, and Instructor Evaluations.

Participants who sign the informed consent selected pseudonyms, contribute a minimum of one hour for interviews in week one and agree to have course data used for research purposes. Participants are purposefully selected after week one for subsequent interviews in week seven and week fourteen. Case study informant selection is based on the MBTI personality type (extraverted), IDI pretest score (middle level), and degree of thick description. We reason that these informants (Nick and Irene) could represent more "exemplary" novice graduate student researcher "voices" and could describe in more detail the potential opportunities and pitfalls that the instructor research modeling approach could bring to higher education classrooms. We argue that developing rapport with these selected informants could also help me interpret multiple data from informants' graduate student culture.

The reader should note that participants completed the IDI and MBTI prior to the first class meeting. Data is drawn from formal and informal course artifacts such as email reflections, online Discussion Forum and Twitter posts, interviews, and personal observations to address the research question. Data are also available to participants through online course access. IDI and MBTI results are provided to each participant upon request and maintained in the instructor/researcher's home office. Data and codes linked to participants and informed consents are kept in a locked file cabinet. Participants' information is kept confidential. Data are maintained and stored until the results are published or presented at an upcoming conference (approximately two years). The documents are shredded or burned. Participants are not rewarded financially but each participant is entitled to receive

the IDI and MBTI results. Participants enrolled in the course receive three credits for completing the study/course whether or not they elect to become informants. In addition, participants are invited to a post-course celebration for refreshments at a Secondary Community Networking event worth approximately $10/person. This event, coordinated by the Department Chairperson, is a component of the Culture of Support Network (CSN) model in this graduate program. It is designed to give faculty an opportunity to disseminate current research and to help graduate students build a strong Secondary Research Community that includes faculty to strengthen learning outcomes. The Secondary Research Community includes all graduate students, research instructors, support groups, mentors, and support liaisons – Library, Statistics, and Formatting. Benefits to participants include an expanded network of research colleagues, the enhancement and understanding of ICC as it relates to educational research, and MBTI and IDI results.

How we structured the material or content

The course material for the Research Methods course is structured to accomplish three things. One is to create a comfortable environment for participants to raise questions about the thesis project, brainstorm about possible solutions to problems, and develop specific skills (e.g., how to write a problem statement, how to do a research review, how to make an argument, and how to find an individual writing voice). The second is to examine and interrogate quantitative and qualitative approaches and the implications of these paradigms for conceptualizing and proposing research (e.g., guest speakers present various research designs to enhance participants' understanding of research methods, technical jargon, and ethical practice). The third is to emphasize critical reading and reflection writing (e.g., participants engage in a critique of primary research texts and critically reflect on the research process to gain a holistic understanding of effective educational research strategies). Participants present work in progress and course organization is structured with individual in-class

appointments guiding participants through course completion. The overall course structure is designed to serve as the groundwork for a culture of support that assists participants in finding their place in the educational research community.

How we designed the explanation and illustration of the material or content

Participants meet as a group and individually with the instructor/researcher twice during class meetings. The focus of these sessions is on identifying a thesis topic, defining a researchable problem, doing a literature review, and explaining methodology as well as a variety of other things such as making arguments and supporting them, and guidelines and suggestions for writing and editing. In addition, participants self-select mentors with subject matter expertise to meet with outside of class as needed. All of these tasks help to complete the IRB Compliance Form, Research Plan, and Chapter One draft. During individual appointments, the instructor/researcher discusses specific suggestions for completing these writing assignments and designs customized exercises to help participants overcome particular problems to be shared with the class. We model all assignments and provide explicit instructions to eliminate misunderstandings and minimize coursework anxiety.

How its use makes learning more effective

The distinguishing characteristic of this course from other graduate research methods courses is the implementation of six inherent instructor research modeling features designed to impact ISD. This "follow me!" approach, based on an apprenticeship model (Dennen, 2003), makes learning more effective because participants experience fewer misunderstandings and are more likely to meet assignment expectations. Using this approach also teaches affective, behavioral, and cognitive components of ISD. For example, we model the existence of affective motivation, behavioral skills, and cognitive knowledge demonstrative of intercultural effectiveness through online social interaction (e.g., Twitter). The affective component refers to our attitude, motivation, set of feelings, intentions, or needs

associated with the anticipation of using Twitter. The behavioral component refers to specific behaviors such as mindfulness, appropriate display of respect, and immediacy skills. We demonstrate these behaviors by responding quickly, engaging participants through questioning techniques, and expressing clarity. The cognitive component refers to our knowledge. For example, we model an awareness of other cultures, discuss global perspectives, and demonstrate language fluency in other languages. We promote perspective-taking and adaptation to new information and resources that include open-mindedness, self-monitoring ability, problem-solving ability, and cognitive complexity.

Participants are required to participate fully in all learning activities and complete a number of in-class assignments that are modeled by the instructor/researcher. All major written assignments are word-processed using APA 6th edition format and carefully edited (i.e. no grammatical, spelling, or punctuation errors) using 12 point font and double-spacing. Unless special arrangements are made, all assignments are submitted on due dates. If an assignment is late (i.e., 24 hours from class time), the grade for each assignment is lowered by 5% each day and after three days it is recorded as a zero. We also suggest that participants allow time to collaborate with the instructor/researcher and self-selected mentors via online social interaction, review completed theses from previous semesters in the University Library, consult research textbooks and other supplemental texts in area of research weekly with support groups/mentors, and incorporate peer-reviewed journal articles to augment literature review. Participants can also schedule individual appointments to meet with the instructor/researcher before or after class as needed. We meet Wednesday evenings, 6:00 PM - 8:50 PM, at the University Graduate Center in a state-of-the-art facility equipped with the latest classroom technology. If participants are unable to attend class for any reason, they contact the instructor/researcher via email or phone. Thus, course engagement and a willingness to participate in all aspects of the course are vital to successful learning outcomes.

An evaluation plan that includes both a strategy for monitoring the approach and for evaluating its effectiveness

IDI Pretest-Posttest Scores. The IDI is a valid and reliable instrument (Hammer, 2004, Paige, 2003). Pretest scores provide a baseline for understanding the predominant worldview of participants while posttest scores show how experiences towards cultural differences change as a result of course design/delivery. Participant interviews also provide a context for understanding participants' philosophies about cultural difference. Pretest-posttest measures, along with contexting interviews, help us understand the course's overall impact and address participants' individual needs. In addition, IDI shift from low to middle or middle to high on the intercultural continuum constitutes a substantive change in worldview orientation to cultural difference which could lead to a greater capacity for exercising ICC in a global researcher context. The IDI is used to measure the overall developmental stage (DS) of intercultural sensitivity. IDI pretest-posttest responses are coded and analyzed by IDI software. DS scores range from 55 to 145, with higher scores indicating greater ISD. Stage One - Low (55-85), Stage Two - Middle (85-115), and Stage Three - High (115-145), represent three levels of DS progression on the intercultural continuum (Bennett, 1986, Paige, 2003, Hammer, 2004).

Course Artifacts. Qualitative evidence of the manifestation of participants' positive feelings, actions, and thoughts towards communication interactions as they relate to alternative perspectives during the research process are likely to reveal new, more inclusive cultural perspectives and greater ISD. Therefore, course artifacts are evaluated for emergent themes indicative of intercultural effectiveness (Cornes, 2008) such as *a genuine desire to connect with peers, self-knowledge, self-assurance and control, sensory acuity, the ability to empathize with another's viewpoint, emotional perceptiveness, behavioral flexibility, a nonjudgmental outlook, humility,* and *introspective reflection.* Combined data are then used to evaluate the overall impact of this "Follow me!" approach on the

participants as a group. Artifacts for qualitative evaluation include email reflections and review abstracts that are submitted via email to further enhance participants' critical reflection skills. The purpose of email reflections is to provide participants with a systematic method of instructor/researcher interaction. These should show that participants are evaluating, synthesizing, and critically analyzing assigned reading(s) while simultaneously reflecting and applying information to the research process. Participants "write down" emerging thoughts, personal reflections, and questions or concerns about the course as it pertains to the research process. The purpose of review abstracts is to demonstrate an understanding of academic research. Participants "write up" a synopsis of self-selected research articles which include the research focus (i.e. statement of the problem(s)/research issue(s) addressed; research methods used (experimental research, case studies, questionnaires, etc.); the results/findings of the research; and main conclusions and recommendations. Figure 1 show examples of an Email Reflection and a Review Abstract with instructor/researcher feedback used for case study development.

Figure 1. Email Reflection and Review Abstract

Mid-course, Final Course, and Evaluation Surveys. During week seven (March 14th), anonymous Mid-course Surveys are administered to model qualitative data collection for this action research project. These "reality check" surveys with sixteen questions ask questions like: "Does the way the instructor facilitates the course make sense to you? Why or why not?" Anonymous final course surveys are administered in week fourteen with forty-nine questions

related to course design/delivery in which participants agree or disagree to statements like: "Learning in this course was enhanced by the use of online interaction through Discussion Forums and Twitter." Additional required university surveys are composed of five questions related to course design and delivery and ask participants to rate four areas; the instructor/researcher, the value of the concepts taught, how well the course contributes to knowledge of the subject area, and overall satisfaction with the course.

Instructor/Researcher Data. One of our research interests includes understanding the facilitator role and the impact it has on participant learning. This element of self-study within the project, often associated with qualitative research, requires that the instructor/researcher become both deeply immersed in the research setting and reflective throughout the process. The systematic collection of personal data, through journaling techniques, chronicles the facilitator role as researcher and is an additional data component that involves an iterative process of diagnosing, action planning, action taking, evaluating, and learning (Holsapple & Lee-Post, 2006). The duality of this role requires that the instructor/researcher function as both a "participant-observer" and "reflective practitioner." From this dual perspective, the instructor/researcher expects to shape findings through direct experience and course participation. It has been argued that instructors who engage in reflection on practice tend to be committed to professional development and want to improve learner outcomes (Schon, 1987). Our objective is to understand participants' perceptions of the facilitator role to uncover what participants think helps them arrive at conclusions that impact ISD as it relates to the instructor/researcher's evolving professional researcher identity.

Online Discussion Forum and Twitter Data. Online Discussion Forum and Twitter data are also used to reveal how assignments are executed, how intercultural sensitivity is

exemplified, and how group dynamics emerge through online social interaction. We use this data to monitor participants' course engagement and progress. We record insights in the instructor/researcher journal. For example, we note how they present themselves, manage relationships with their group members, assign responsibility and blame, persuade group members to complete tasks, and make sense of group members' ongoing social interaction practices.

Effectiveness and specific benefits of our approach to the learning process

Participants anonymously complete Mid-course Surveys with open-ended questions designed to elicit evaluative responses regarding course design/delivery. While hand-written responses are positive there is one exception:

> The online tools are very distracting to me. The day we were using Twitter and the Discussion Board [Wednesday night during usual class time] was an unproductive day for me. I need to be concentrating on one thing at a time and having two websites up while trying to read research kept me from getting my goals accomplished.

Participants suggest that the online digital tools used for intercultural coaching provide opportunities for informal learning and course communication:

> Discussion Boards are more useful for longer updates and communication about projects. Using Twitter has been a fun experience for exploring resources…

Participants' Twitter posts include inquiries, status updates, and links to various resources. Figure 3 is an excerpt of instructor/researcher Twitter posts to participants to stimulate conversation, collaboration, and the sharing of resources:

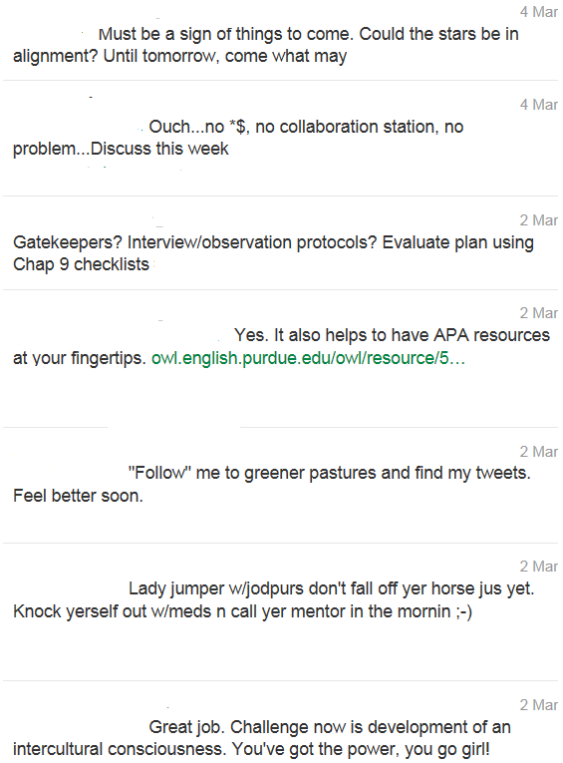

Figure 2. Instructor/Researcher Twitter Posts

Online Discussion Forum posts provide some insight into the development of participants' researcher identities and seem to demonstrate increased resourcefulness, course engagement, and use of humor to build relationships: **Quick Update** Posted: Wed 3/7/2012 at 8:12 PM

> **Nick wrote:** This week I really started diving into some of the research I found previously. Unfortunately, there aren't as many actual studies about social media and higher education professional development as there are articles. The articles demonstrate some of the potential of those areas, and they will be great to include in my literature review, but I need to keep looking….
>
> **Instructor/researcher wrote:** I met with an "old" [university] professor who was on my dissertation committee. I have not seen him for over 2 years so it was really nice to catch up... he has not embraced technology in the classroom (he's over 65) so when I told him we were using Twitter this week he did not seem interested in learning more about it...Too bad! He does not know what he is missing. It will be interesting for [Nick] to find out if age is a factor that might influence Twitter habits...

> **George wrote:** I hear a Thesis title....."Getting Grandpa on the Twitter bandwagon"
>
> **Instructor/researcher wrote:** LOVE IT [George's title]...Kind of scary though that I am approaching that demographic and will soon be eligible for my AARP card! Thank God I'm not a Luddite!!!

In terms of instructor research modeling, participants agree that this approach seems to be a valuable course component. Here are group responses representing this favorable sentiment:

> Research modeling so far seems to be very effective for teaching. When creating my research plan, I was able to remember back to how [the instructor] modeled something in class and it helped to give me direction.
>
> I believe having the opportunity to review the researchers' documents is very conducive to my learning style…
>
> Research modeling is very helpful because we can authentically relate.
>
> I think modeling is definitely powerful. I used [the instructor's] IRB form as a model as I was completing mine. I would love to see [the instructor's] "Introduction" and then as a class work on that piece and then see [the instructor's] section on "definitions" and then work on ours. Using modeling and developing benchmarks could help a lot.

Again, participant responses provide preliminary data analysis for the first phase of this study. Final course evaluations, instructor evaluations, along with IDI posttests will provide a more robust method for triangulating data, developing case studies, and assessing the overall impact of course design and delivery on ISD.

How our major educational objectives were met

In order to assure that our course educational objectives are met, we periodically administer open book tests to monitor participants' understanding of texts and readings. A test bank, provided by Pearson Publishing through online registration, downloaded at the beginning of the semester, is incorporated into classroom learning activities whenever possible. Textbook

materials and Pearson instructor resources are available via the Pearson website http://wps.prenhall.com/wps/media/access/Pearson. In addition, we integrate Creswell's recommended activities and applications linked to chapter learning outcomes when classroom time permits. For example, participants work on building research skills by reviewing sample proposals and specifying whether the research problem is a good one to study or examine purpose statements to learn how to recognize the different elements of quantitative and qualitative approaches to research. After class meetings, we post Creswell's PowerPoints available for download into the course website for elective review. We also implement learning activities to directly link to the last learning objective outlined in the syllabus: *Learn to write and present academic research for educational conferences (e.g., AERA, DSI*). This is accomplished by modeling this research writing process and providing online Discussion Board and Twitter posts on this study's preliminary data collection, analysis, and interpretation.

Benefits derived from the presentation

This section is yet to be determined.

Students' reactions to the presentation

This section is yet to be determined.

Results of the evaluation of the effectiveness or benefits derived

Anticipated course outcomes include a set of ideas about research course design and delivery, a research agenda for future scholarship in this area, and a proposal that soft skills can be successfully developed using instructor research modeling to a motivated group of participants who are willing to change from an ethnocentric stage of ISD (denial of difference, defense against difference, and minimization of difference), towards a more inclusive stage of

ISD producing an ethnorelative worldview (acceptance of difference, adaptation to difference, and integration of difference).

First, a checklist could be devised for individuals and/or groups of academic policymakers, to promote evaluation and reflection on current perspectives and practices towards research courses designed to develop globally competent researchers. The ideas that are generated from the various data-gathering processes as well as from the case study development and analysis culminate in several recommendations for developing research courses with this content and delivery.

Second, future research needs to broaden the conceptualization of ICC and researchers who teach novice graduate research students must continue to investigate the effectiveness of instructor research modeling designed to impact ISD. By identifying and understanding the factors that contribute to ISD, we expand the research base and the study's applicability to academia and professional research associations. While these organizations and associations now recognize the importance of ISD, there is little data within an educational research context to measure across the board outcomes. This study provides ideas for assessing and developing current and future educational initiatives.

Third, we propose that soft skills, such as ISD and ICC, can be successfully developed using instructor research modeling to a motivated group of participants who are willing to change from ethnocentric perspectives towards more inclusive perspectives producing an ethnorelative worldview. In this limited sample of four female European American participants, X experience positive IDI score change. Case studies illustrate that those with the greatest degree of change (positive IDI stage shift) are very likely motivated participants who demonstrate high course engagement and introspective reflection. To ensure success for all

participants, we suggest additional required and mandatory synchronous online instruction using the IDI as an intercultural coaching tool to guide and facilitate the development and implementation of individual intercultural learning plans.

Finally, the findings contribute to the research literature by not only examining the role of teaching practice on non-traditional research courses but also by directing attention to participant acceptance of courses using instructor research modeling to develop ISD and ICC . The soft skills that the majority of participants acquire using online digital tools tend to be consistent with what Mendenhall and colleagues (2008) suggest are "foundational" capabilities which serve as building blocks for global competence. Educators, trainers, and consultants need advances in this stream of research to learn how to successfully incorporate online digital tools into educational alternatives for producing globally competent researchers with higher levels of ISD and ICC.

Transferability and implications for educators

This ongoing exploratory case study fills some knowledge gaps in the larger unexplored area that addresses the link between ISD and globally competent researchers. The effectiveness of instructor research modeling to promote participants' intercultural consciousness and impact ISD appears to be a useful and complementary approach for developing globally competent researchers. Ideas are shared beyond the classroom in an informal and random way and participants' perspectives about online digital tools seem to be positive; participants connect and collaborate with peers; it fosters creativity, stimulates conversation, and invites cooperative learning. While there are numerous study limitations, case study development using selected informants' data provide some discussion points and a template for further educational research. The small sample size, methods for measuring knowledge application, creation, and retention,

short time frame, and the limited one-time research methods classroom experience clearly suggest that generalizations and transferability of findings cannot be made across multiple contexts or disciplines. In fairness, the preliminary data analysis provide some useful ideas about how to engage novice graduate student researchers more fully in the research process and link research writing and presentation skills to authentic professional research experience.

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