

Cultural competence and instructional design: Exploration research into the delivery of online instruction cross-culturally

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Abstract The amount of resources being poured by Western universities, companies, and governments into creating educational content to be exported (via the Internet) to other cultures is astounding. Those assigned to accomplish this task are left with the great challenge of meeting the needs of learners who come from cultures that are foreign to them, and who often have very different abilities and expectations than originally assumed. This study explores the cultural competence in the lived experience of 12 professionals who have been involved with such efforts. Often they have had to question their assumptions, recognizing flaws in their own thinking and in the organizations that support them, and tried to alter their practice accordingly. Their awareness of cultural differences and the importance and impact of these differences in their practice will be discussed.

Keywords Culture · Cultural competence · Instructional design · Instructional design practice · Online instruction · Global · International

Introduction

The interest regarding technology in cross-cultural markets is obvious. The United States and Europe combined are responsible for shipping 63.8% of personal

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computers worldwide (Aykin, 2005). One researcher (Rose, 2005) noted that in Germany alone, more than 60% of total machinery was oriented to export (in 2001), nearly 40% of it for non-European markets (Asia, Latin America, and so on). With so much technology exchange around the world, cultural concerns over usability (on multiple levels) have increased in visibility and importance. Nielson (2005) gives a simple example of the magnitude by describing one of the many related problems: “we tested 20 American e-commerce sites with both American and European users. The users’ ability to successfully shop on the sites was 61% on the average for the American users and only 47% for the European users” (p. xv). That means the effectiveness of these sites could be increased by one third if they improved the usability for international customers. Nielson says that averaged across several studies, they found that “measured usability was 46% higher for domestic users than for international users” (p. xv). It is clear that culture has a strong impact on human-computer interaction.

Similarly, the interest regarding educational technology in cross-cultural markets is growing. Online (or e-) learning has been seen as a way to keep students both well educated in their chosen field as well as digitally literate (Massy, 2005). The diffusion of technology has often been seen as the golden token of providing access to previously “uneducated” populations. Projects such as MIT’s OpenCourseWare project (ocw.mit.edu), UNESCO and World Bank’s Education For All (EFA), and tertiary educational efforts (web.worldbank.org) only scratch the surface of the volume of educational materials being created (typically in the West), intended for international use. For example, Cisco’s development of academic curriculum alone has already been delivered to approximately 400,000 students in 10,000 academies in 150 countries (Dennis et al., 2005), and Global University, based in Springfield, Missouri, offers courses to more than 600,000 students in 178 countries, in more than 145 languages (Rogers & Howell, 2005).

Accordingly, the issue of culture in the field of Instructional Design and Technology (IDT) is gaining ground and an increasing audience of interest. The instructional designers, assigned to design the educational content and experiences, are not immune from the influence of their own cultural blinders. Perhaps this is why initial high hopes for international e-learning have not been fully met and have resulted in some measure of disillusionment (Massy, 2005). Concerned with this issue, Burnham (2005) questioned whether the expression of instructional design as we now know it may be so grounded in Western culture as to be of less value for a different culture. He recognized that at the very least, “even though people of all cultures find themselves learning and teaching in formal instructional settings; who they are and what they bring to these settings can make large differences in how design is approached.” The interest in recent years on the interaction between culture and educational technology is growing.

In the Handbook of Distance Education (Moore & Anderson, 2003) an entire chapter is dedicated to “culture and online education.” Most of the material, however, was borrowed from the work done in the field of cross-cultural psychology, intercultural communications, and intercultural computer-mediated communications (CMC) with inferences drawn to the field of online education. Towards the conclusion of the chapter, the authors concluded that their review of the literature “has indicated little published research on the cultural aspects of online learning and teaching” (Gunawardena, Wilson, & Nolla, 2003, p. 770), and supported this position with other authors who have begun research in this area (Branch, 1997; Chen, 2000;

Goodfellow, Lea, Gonzalez, & Mason, 2001; Rogers, 2006; Wild, 1999;). Subramony (2004) points to a severe lack of attention among instructional designers as a whole (reflected in his review of the literature, conference proceedings, and from his own educational experience) towards important issues of cultural diversity, resulting in the alienation of many learner groups.

The present research study is an exploration study (for a description of the difference between exploration, explanation, and design research see Gibbons & Bunderson, 2005). Justification for this research stems from the fact that the authors can find no present studies about the range of challenges in the lived experience of multiple instructional designers (from around the world) as they are engaged in designing online instruction cross-culturally. This is especially important in light of the fact that the Internet and related technologies now extend the reach of instructional designers as never before. Thomas Schwen says of instructional design, “We (as a profession) have only recently become proficient enough to do harm” (as quoted in Subramony, 2004, p. 21). A few isolated case studies exist (Ho & Burniske, 2005; Clem, 2005; Inding & Skouge, 2005; Mbambo & Cronje, 2005; Venter, 2003), and some discussion of cultural issues have been addressed (Chen & Mashhadi, 1998; Spronk, 2004; Bentley, Tinney and Chia, 2005). However, many of the frameworks for discussions of culture in IDT have been borrowed from other fields (e.g. Hofstede, 1984) and thus do not apply “on all fours.” Additionally there has been little focus on the designers themselves, the particular role they play within the constraints they have, and the way they have developed (or not developed) in the course of their work in these in these cross-cultural contexts.

The real contribution of this study is that it takes a step forward in providing the much needed *exploration research* that can be used to inform both future *explanation* and *design research* (Gibbons & Bunderson, 2005) in this vital area. This exploration research has the potential for helping those whose impact and responsibility is expanding as they are reaching larger and more diverse populations than ever before through online instructional designs.

Research questions

Concerning those who are involved with creating online instruction for people of other cultures, the research questions explored in the present study are as follows:

- (1) Are they aware of the differences between themselves and the cultural group for whom they are designing instruction?
- (2) If so:
 - (a) How did they become aware of these differences?
 - (b) What importance do these differences assume in their thinking?
 - (c) How does understanding cultural differences affect instructional design practice?

Theoretical background

Definitions of “culture” are complex and contested among theorists. Of the little that has been published regarding the cultural aspects of online instruction and instructional

design, too often the researchers have automatically imposed existing theoretical dimensions of cultural variability (e.g., most often individualism–collectivism, power distance, uncertainty avoidance, and masculinity–femininity; Hofstede, 1991). Although work like Hofstede’s has made a valuable contribution in providing one of the few empirically based models about where some of the differences may lie between cultural groups, unfortunately, it is based on national differences. Maitland and Bauer (2001) argue that when based on national differences, theoretical dimensions of cultural variability are too easily used to make unfounded and unhelpful stereotypical assumptions about individual learners. In their examination of the diffusion of the Internet, Maitland and Bauer call this problem the “ecological fallacy”; that is, “the impulse to apply group or societal level characteristics onto individuals within that group” (p. 90). This is a mistake because the more generalized the descriptions of a group are (in order to get statistically significant quantitative data) the less likely these descriptions will apply to any one individual. We agree with Maitland and Bauer’s conclusion, “national level characteristics must not be interpreted at the individual level” (p. 90). Although some attempts have been made at creating and using measures to reveal individual placement on some of these scales (see Clem, 2005; Neuliep, 2003), automatically imposing generalized frameworks, especially those derived from other fields, should be approached with caution. For online instructional design to meet the needs of real people in the process of making practical decisions, a more dynamic approach is needed to account for both the complexities of the learners’ cultural predispositions as well as their individual uniqueness and ability to change.

So how do we come to understand what a more dynamic approach might look like? Where is the theoretical basis? Schwen, Evans, and Kalman (2005) made the argument that much of the sophisticated practice in educational technology is not grounded in theory because the practitioners are using techniques and tools long before academics can begin to theorize about them, and that “scholars should look to those practices to enrich research and related theory” (p. 13). So one problem with imposing any pre-existing theoretical framework (borrowed from another field) on new questions related to online cross-cultural instructional design is that the issue is so complex. While this borrowed framework would illuminate some things, it also necessarily conceals others. The current pioneer practitioners in the world of online cross-cultural instructional design are often working beyond the current realm of theoretical understanding. As Schwen, Evans, and Kalman (2005) elaborated, “The fault, if there is any, is not with the practitioners who are of necessity practicing at the edge of the professions knowledge. Rather the scholars in the community should be attempting to make sense of especially sophisticated practice” (p. 13). For this reason, there is a gap, and more exploration is needed by researchers into the complex reality of practitioners.

Grounded theory was chosen to inform the methodology of this study because it is ideal for this type of exploratory research, allowing the complex multi-faceted issues to emerge without pre-imposing rigid definitions, and for future theory and research to be more grounded in real-world, lived experiences of actual practitioners (Glaser & Strauss, 1967; Goulding, 2002).

Outside of a general belief in the importance of culture in cognition (e.g. Berger and Luckmann, 1966; Hewitt, 1984; Neuliep, 2003), we began with no special pre-suppositions about how cultural considerations might influence the practice of instructional designers. Rather, our intent was to allow the instructional designers to tell us as authentically as possible how cultural factors had impacted their work and

also to help them reflect on that impact in ways that would help them become more culturally sensitive and pedagogically effective instructional designers in the future (see Rogers, 2006).

Methodology

In the context of this exploration study, we needed semi-flexible methods that would allow the collecting of rich in-depth data, as well as a way to compare and contrast different perspectives. The method chosen to meet these needs was the case study approach. This type of research design is described by Miles and Huberman (1994):

By looking at a range of similar and contrasting cases, we can understand a single-case finding, grounding it by specifying how and where and, if possible, why it carries on as it does. We can strengthen the precision, the validity, and the stability of the findings (p. 29).

Collecting a pool of potential participants for cases was done through a snowball sampling method (Atkinson & Flint, 2001). Nearly 40 people who were involved with educational technologies (i.e., the Internet) and designing instruction cross-culturally were identified and contacted. Half responded positively with an interest in participating in the study and 12 were chosen (six male and six female) on the basis of availability, interest in participating, breadth and depth of experience (see some relevant demographic information for these 12 participants in Table 1). In-depth interviews were then conducted with each of the participants. Interviews were semi-structured and carried out in person or via the telephone. Interviews explored the stated research questions of this study.

Tools such as triangulation, member checking, thick rich description and peer debriefing were used to make the themes and interpretations in this research as trustworthy and credible as possible. A more detailed account of the methodology used can be found in Rogers (2006).

Results

This paper addresses each of the research questions in turn and provides a synthesis of the issues that emerged across all the cases, citing relevant quotations from the participants interviewed. Because of space limitations, full details of each case are not included in this manuscript. However, interested readers can find a more in-depth treatment in Rogers (2006).

Awareness of cultural differences

The first question addressed in the research is: Are online instructional designers aware of the differences between themselves and the cultural group for whom they are designing instruction?

The short answer is, yes—but they have a limited awareness. All those who participated in this study are aware of differences between themselves and the cultural groups for whom they are designing instruction, while at the same time

Table 1 Demographic information of participants

Pseudo-Name	Born in	Living in ^a	Foreign countries or distinct cultures worked with
Barbara	Canada	Sri Lanka	Guatemala, Barbados, Guyana, Chile, Ecuador, Great Britain, Ghana, Namibia, Zimbabwe, Botswana, Sudan, Mozambique, Sri Lanka, Bangladesh, Thailand, Philippines
Marci	US ^b	US	Native Americans, African Americans, New Zealanders, Hawaiians and the Polynesian groups there, Greeks, Turkey, North Africans, Central and South Americans (all Spanish-speaking countries and from Spain), Brazilians, Russians, poverty-level Americans, Mongolians, Canadians
Derek	China	Hawaii	Mongolia, China, Hawaii, USA, Malaysia, Asia-Pacific Islands
Rose	US	Egypt	Egypt
Betty	England	Australia	Australia, China, India, USA, South America, Norwegians, Koreans
Ian	Australia	Australia	China, Japan, Malaysia, Papua-New Guinea, New Zealand, UK, Aboriginal Clan cultures in QLD, NT, WA, NSW, Torres Strait Islanders, Kanakas (19th century imported south sea islanders, the only stateless group in Australia), Jewish (both in Australia and overseas)
Mike	US	Hawaii	Tonga, Hong Kong, China, Philippines, Mongolia, Asia-Pacific Islands
Joey	England	UK	Kenya, Namibia, Nigeria, Viet Nam, Solomon Islands, Rwanda, Sudan, Gambia, Ethiopia, Somalia, and particularly—Viet Nam, Nigeria, Sudan
Jill	England	UK	Uganda, Afganistán, Swaziland, Somalia, Ghana, UK
Carrie	Ireland	Australia	Australia, Spain, France, Italy, Middle East, Borneo, China
Troy	US	US	Korea, China, Hong Kong, Malaysia, Uzbekistan, Japan, Taiwan, Nepal, Sri Lanka, Singapore
Shawn	Scotland	US	UK, USA, Canada, Kenya, Egyptians, and taught Chinese, Russian, Bahamian, Venezuelan, Turkish, Greek and Slovakian students in the US

^a At the time of the interviews

^b “US” means mainland USA

realizing there was a lot they still wanted to know. The data collected from these cases indicated that becoming aware that *there are* significant differences between cultures does not mean that you are aware of what all of those differences are or of all the ways in which they influence learning. Consider the following two quotes, which are representative of the general feeling of all the participants (italics added for emphasis):

Instructional designers think they are assumption free, but many of the assumptions are implicit... I'm sure that every week or month of experience that you have in this kind of international context opens your eyes to something else, but I don't think it necessarily makes you know more about the different contexts. I think it rather makes you aware of how much you don't know. (Jill)

I am very aware that there are cultural differences. Do I understand what they all are? No. I am more attuned to picking them up when I see them. Especially for

cultures I am not familiar with, I am aware that there are differences although I do not know what they are...*I don't think you will ever get to the stage where you will be able to make your instruction completely culturally bias free...You can do your best, but I think we are a long way from doing our best, simply because we don't think about it.* (Shawn)

Both Jill and Shawn recognize their growing awareness of cultural differences, and the influence those differences have on their practice, while still being very open to and anxious to learn more.

In general, the informants' comments regarding this issue fell into four categories that repeatedly surfaced in the interviews are: (a) general cultural and social expectations, (b) teaching and learning expectations, (c) differences in the use of language and symbols, and (d) technological infrastructure and familiarity.

General cultural and social expectation

Some of the most fundamental of the social protocols in Tonga are those relating to courtesies involved with greetings, especially those dealing with people of high rank...In the presence of the royal family, no Tongan's head is allowed to be above that of the royalty's... Some of the issues these customs might raise were brought to our attention when we demonstrated the distance learning technology to the [Crown Prince]. (Mike)

As this quote illustrates, cultural and social expectations regarding roles and relationships do influence the type of reception that online education will receive. An understanding of general cultural differences should influence the design process. In addition to differences in conceptions of roles and relationships, cultural and social expectations regarding the perceived role of women, the balance between keeping rules and valuing particular relationships, legality concerns, different concepts of time, and even humor should all be taken into account in trying to understand the learner. Also important is an understanding of the effect of enculturation, and the influence of the socio-economic status and political instabilities of the learners' country. If nothing else, instructional designers need to be aware of general cultural and social expectations in order "to make the materials very relevant to the learners, to make it possible for them to use their life experience and their work experience and their everyday life environment" (Jill). In doing this, Mike tentatively offered some concise and helpful suggestions:

Determine the overarching priorities/goals for your long distance project and ensure they meet local needs/desires; gain the support of people with high ranking or influence to try to stop many problems before they begin, especially in a high context culture; openly discuss issues and concerns with the local staff and administration—do not simply implement best practices; leave untouched as many social norms and traditions as possible; be sensitive to traditional concerns when resolving concerns, be open to traditional solutions; and make the hierarchy a group of facilitators for those under their control. (Mike)

Mike's suggestions resonate with the comments of many of the others and indicate an approach of sensitivity and responsiveness with regard to these general cultural and social expectations.

Teaching and learning expectations

First of all, culture can influence your expectations of yourself as a learner, and then your expectations of the teacher; those are the most basic ways that culture influences learning. And your learning style as well. How do you conceive of learning? How do I conceive of learning? What do you expect, and watch? What is your goal as a learner, and what is worth learning? (Carrie)

Working very closely with Canada's first nation peoples or aboriginal peoples...was a real eye opener...because they do also have a different approach to education. There is much more respect for the elders, and ...also a high level of spirituality involved in native education, to the extent that every formal meeting that we would have with a band or tribal council would begin with a prayer, said by one of the elders at the meeting. Everything was framed very much in the context of spirituality, and this is something that Western academics just simply aren't attuned to, we're not accustomed to it. (Barbara)

Instructional designers encounter a wide variety of teaching and learning expectations, especially when working cross-culturally. Perceptions about teaching and learning are influenced deeply by culture. One of the primary concerns the participants in this study had was becoming more aware and sensitive to what assumptions they could and could not make on this level. A deeper understanding of cultural expectations concerning the teacher–student relationship and roles, issue of saving face, varying need for face-to-face interaction, ideal classroom environment and types of activities engaged in, meta-cognitive strategies learned, writing style, assessment types, and categorization and structuring of knowledge would help instructional designers make wiser decisions as they create online courses cross-culturally.

Language and symbols

Given that there is no written tradition in Australian indigenous culture, the concept of language in the context of literacy and numeracy, is at best a slippery one...Thus, the 'written language' of, say, a western desert traditional is an entirely artificial concept, based on some loose phonetic arrangement useful only as a means for anthropologists to record the gist of some conversation to be replicated at some future date. (Ian)

A particular biology professor had been teaching clearly things like 'A is inside B', but she looked and noticed she had students that would write on lab notes things like 'B is inside A'. She wondered how they could get it so backward. She figured out, which was very clever of her, that the students who were having the most difficulty with that were students whose first language was a language where word order was not important because word endings signified relationships. (Shawn)

Ian and Shawn's comments show an area of concern noticed by these participants; symbols are used and interpreted differently in different cultures. Even the color spectrum is not the same in every culture. As one of the most complex and meaningful symbolic systems, language took a prominent role in their thinking, and understanding differences in language and symbols was important for the following reasons: (a) language structures can actually influence the way in which people think;

(b) when the language of cross-cultural instruction was English, instructional designers tend to forget about the impact of other cultural issues and misunderstand the level of the English learners can handle; and (c) a misuse of other symbols, colors, and metaphors can unintentionally offend or alienate learners.

These three reasons indicate the importance of cultural competence. If nothing else, “the more foreign something is, the more likely that people are going to feel that it does not apply to them in their context” (Shawn). This provides ample reason to explore all of these issues in more detail than is presently done in either classes in instructional design or actual practice in the field. There is need, in short, for a good deal more research and user testing.

Technological infrastructure and familiarity

The act of being online is so different based upon where you are. It can be slow and painful. (Jill)

We know in the ideal world people have potential of using new web-based Internet technology on the one hand, and on the other hand recognize that still for many of the students throughout the world [using advanced technology] becomes a barrier and an exclusion instead of an inclusion... (Joey)

As Jill and Joey allude to, the cost, dependability, and speed of access to the Internet, and even access to electricity is less than desirable in many countries. The gap between the technological haves and have-nots has been referred to as the “technology divide” (Inding & Skouge, 2005). Particular concern needs to be taken by instructional designers not to get carried away by the latest technologies and push their implementation regardless of the context in which they will be used (Mudhai, 2004). Although it might not traditionally be thought of as a “cultural” concern, it often catches instructional designers off-guard to find out how limited the resources and dependability of educational technology can be; even “technologies” such as books, paper, and pencils being in short supply in some areas of the world. On the other hand, many people from the West are surprised to find out that many people from their own countries do not even know how to turn a computer on and off, and that some of the developing countries in Asia actually have a more sophisticated and wide-spread technological infrastructure (Korea in particular being much more developed than even the US).

All of this highlights the need for fewer assumptions to be made about access and dependability (technological infrastructure), as well as the familiarity of the learner with the medium used for instruction. Instructional designers must do a better job at discovering how affordable and available the technology really is, and how learners really are familiar and willing to use it.

Increasing awareness of cultural differences

The next question to be covered is how these participants became aware of these differences in the first place. Marci shared an insight into her own personal experience: “I didn’t understand any of these cultural differences or assumptions at first. When I was first introduced or encountered the problem I didn’t have words for it and it wasn’t in any of my training.” So how did she and others become aware of differences? These participants developed a level of awareness in informal ways

(e.g., as a side effect of exposure to different cultures and as a side effect of having an open and inquisitive disposition). Shawn and Troy illustrate this in their comments:

I've always been aware of cultural differences, and part of that is where I come from. I come from a small country that is part of a bigger country...there is a much greater awareness, at least of the rest of the world, simply because we are such a small country, and our whole history has been threatened by other people. Even still recently in living memory... (Shawn)

I'm just one of these guys that I learn from everybody, I respect everybody, my prior assumption is that it is really worth connecting with this person. (Troy)

These participants also developed a level of awareness through more formal and intentional means (e.g., engaging in simulations, taking classes about cultural differences, conducting or reading relevant research, receiving more participant feedback, participating in multi-cultural design teams, taking courses designed by people from other cultures, and going on field visits moderated by an expert guide). Shawn explained one of these:

One of our professors teaches a cultural diversity class, and one of the things she has people do is go to a black church service [here in Georgia]. And it doesn't matter what your religious affiliation is, if you are not African American and from the south, going to one of these services is completely different from anything that you have ever done before...*There are always other things that you can do, but nothing can compensate for actually moving people somewhere else and telling them to get on with it.* (Shawn)

The process of becoming aware of cultural differences for each of the participants was unique, but the general feeling is that much more can be done to develop cultural awareness and sensitivity among instructional designers.

Importance placed on cultural differences

Our next concern was to determine how important the understanding of cultural differences was to these participants. We discovered that instructional designers often feel a tension between the greater importance they believe cultural differences should play in their work versus the not so ideal realities of what they are supported or encouraged to do. As Betty put it:

I am so excited about [the questions about culture] you are asking at one point, but I also feel somewhat drained, because the reality of cross-cultural teaching that I see as ideal is a million miles away from what I am doing, or am supported to do. I'm given no additional support at all... (Betty)

Betty's comments are valuable because they highlight one of the most significant points brought out by a majority of participants in this study. Specifically, their attention to cultural differences is more limited than they would like because the actual practice of IDT is, in many ways, a lot messier than the ideal textbook situation learned in school.

Three barriers to being more culturally responsive emerged from the analysis of data: (a) an over emphasis on content development as the center of practice and under emphasis on context and learner experience, (b) a relative lack of evaluation in real-world practice, and (c) the creation of less than ideal roles that instructional

designers assume in the larger organizational structures involved. Each of these barriers will be discussed briefly in turn.

Barrier #1: IDT focus on content development

Sometimes instructional designers, and models they use, put them in the position of teacher [instead of learner], and *even though the model says to do a needs analysis, it often gets pushed aside, because it is not the focal point of the model...* (Carrie)

I think developing (taking the content and rendering it into digital media) is only one step of the design process. This is a huge thing, where *our field really needs to be careful of how we think and talk about ourselves.* (Troy)

These interviews provided significant evidence that the impact of cultural concerns is limited because of the context in which instructional designers are educated and the way they typically conceive of their practice. As Carrie suggested, many of the instructional design models and methods assume the role of the teacher, in trying to imagine what a teacher might do and create content that way. In short, implicit in many online instructional design models is the idea that the content of a lesson determines a one-size-fits-all method of delivering that lesson. This misguided approach quite ignores the differential needs of learners in various contexts. Not surprisingly, the unhappy consequence has been that too many instructional designers are frequently isolated physically and mentally from the learners for whom they are designing instruction.

To help solve this problem, perhaps new paradigms are needed. Unfortunately, making the change to a new instructional design paradigm or adjusting older paradigms (in order to allow for more cultural sensitivity) is going to be rather difficult. This is partly because of the ways in which the history of IDT, with its' general over emphasis on content development, has increased the negative impact of the next two barriers: the lack of emphasis on evaluation, and the limiting role instructional designers play in the overall organizational structure of the projects in which they work.

Barrier #2: Lack of evaluation in real-world practice

The heavy value placed on content, in relative isolation from context, means that less emphasis is placed on any evaluation. Conscious evaluation efforts often get squeezed out under the pressure of budget and time constraints. Consider this statement:

[ISD background and training] should facilitate [effectiveness in cross-cultural settings] if you do an adequate assessment of your learners. I think the whole problem, and this is what I see so much, particularly with people working in industry—"Oh, we don't have time." They don't have time to do assessment at the beginning and they for sure don't have time to do assessment at the end...*Well, if you don't have time to really learn about who you are designing training for, you are wasting your time.* (Shawn)

Too many instructional designers still seem to believe that they can separate evaluation from development and still create high quality instruction. The following quotes from Joey and Jill illustrate this issue, which makes culturally sensitive IDT difficult:

In the reality of budgets and deadlines, evaluation does very often get squeezed out. Or on the other hand, there might be a desperate need for HIV training or training for refugees where people don't want to wait until it is perfected. There is where you could lose some of the quality assurance, but you have the pressure to finish, and things get cut where they shouldn't be. (Joey)

The ideal situation is that you create a pilot testing phase that is planned into the development process when you are preparing the materials for the first time. Now, often this kind of pre-test gets squeezed out because you never have enough time to do what you want to do even if you want to do it...That is good practice, but if it doesn't happen, ...it tends to be the evaluation that goes to the end of the schedule and then gets chucked. (Jill)

It is obvious in comments like these that both Joey and Jill would like to have more time and money to investigate if the things that they design are really meeting the intended learner needs or not, but that they also feel the tension from their reality not matching up with their ideal. Betty describes this by saying how she feels as if she has no time for anything other than “crisis management”, and how cultural sensitivity does not fall into that category.

Barrier #3: Organizational structures and the role of instructional designers

One other major obstacle to cultural sensitivity is the type of role that instructional designers are asked to play in the organizational structure of the projects they are assigned to. It is not only the instructional designers who tend to focus on content over learner experience, but often the organizations that employ them do so as well. Frequently, the instructional designers have absolutely no role in the initial audience analysis by which the goals and medium of instruction are chosen, nor do they actually take part in the implementation or the evaluation of the instruction, if evaluation even takes place at all.

Carrie expresses her view that instructional design as employment is basically a compromise, due to the pre-existing constraints imposed on projects by the clients when you receive them. Shawn offers a similar point of view:

[I] went to the headquarters of an international corporation and their training people talked to us. And the way that it was set up, they had internal clients say, “We want training to do X” So the training people would design the training and put it in the box and give it to the people who asked for it. The instructional designers were not responsible to do any of the assessment of who the learners were, they were not even responsible for monitoring the delivery of the training. (Shawn)

Various employers' culturally limited view of the role of an instructional designer have extended beyond the corporate sphere and into the universities, where there should clearly be a more critical interrogation of the political and cultural implications of the new technologies in education. Carrie gives a grim description of what she has seen with many of the instructional design work scenarios in universities:

For example, in Australia, many instructional designers have been demoted to a non-academic position. They call instructional design a kind of technologist. And this immediately gives everyone else in the university the impression that instructional design is simply a matter of one-size fits all, quick fix, put it on

Blackboard, electrify it, and then suddenly you've got a program, you've got a course. And many instructional designers have never even seen a student, or talked with them... There is a lack of connection, which is the first thing, between policy level, resourcing, and status of instructional designers. Many of the instructional designers...design a course for a teacher, the teacher goes and teaches it, and the teacher gets the feedback on the course, how well or bad that it was, and very often the instructional designers never even meet students or get any feedback at all. *There are all these gaps and loops, disconnect all along the line.* It is absolutely extraordinary. And I put it down bad management, lack of resources, poor conceptualization of the actual role of an instructional designer. Pretty serious stuff, really. (Carrie)

It does seem that it is a serious thing, if instructional designers really have no contact with students at all, and if they never see any feedback with regard to the materials and educational experiences they help to create. What do they think their role really is, and how are they supposed to improve? Betty expresses similar frustration in this way:

The instructional designers are taught so much out of the context of what is happening that they are often out of touch, isolated from much of the realities...It is kind of nonsense, to be honest with you, in a kind of a way. The instructional design model many of them are using is trying to figure out where they can put puzzles or quizzes into the learning activities. The budget they have for it is so limited that there is no way they can invest as much as they need to in terms of time with the instructor, or in terms of the time the instructor has to give to them. Even finding time for a five minute phone conversation with the instructor is difficult. With the time and resource restrictions there is no way we are going to be able to adequately approach any of the multi-cultural stuff. (Betty)

If the role of instructional designers continues to be so limited and isolated from learners, then distance education will succeed in being distant from the needs and expectations of learners.

This scenario has disturbed some instructional designers to the point that they are seriously considering the possibility of going by a different title (Burnham, 2005; Gorski and Clark, 2001; Subramony 2004). Troy mentioned a new profession that is emerging called "Experience Design", which might cater to a view that instruction is more than course content, and in which instructional designers are required to be more sensitive to the actual experiences and perceptions of the learners. Let us, therefore, turn to how the participants in this study are striving to overcome such barriers.

Impact of cultural awareness on instructional design practice

How does the understanding of cultural difference affect instructional design practice? In all this talk about cultural differences, can anything in IDT be held constant? Does every instructional experience and design process need restructuring for customization in different contexts? How much can we trust about what we learn in instructional design when working cross-culturally, and which things do we need to question and reexamine? The participants interviewed offered a unique perspective;

that there are some general principles for instruction which seem to apply in any culture, but that a lot more effort needs to be put into “building bridges” between these generally useful principles and the various learner contexts. Derek said it this way:

I believe that good instructional design principles and techniques are universal, cross-cultural. It doesn't matter where in the world they are coming from, but you need to find where the people are coming from, what their expectations are coming into it so that you can know what bridges to build. (Derek)

In this section, the metaphor of building bridges will be explained, along with a description of some of the associated implications on the instructional design practice and process. In particular, building bridges in cross-cultural instruction stimulates (a) separating deeper principles from particular application, (b) identifying gaps where bridges are needed (specifically through immersion in the culture, integrating learner feedback in up-front learner analysis, and in formative evaluation), (c) allowing for more flexibility in the design process, and (d) educating other stakeholders (e.g., the client and subject matter expert) so they are invested in the bridge building too. The first three points here (a, b, and c) are partially in response to barriers #1 and #2 (identified in the previous section) and the fourth point (d) is partially in response to barrier #3.

Separating deeper principles from particular application

Many would argue that more debate and research is needed to determine whether or not there are universal principles in instructional design. The general consensus of the participants of this study, however, is that although culture might influence initial receptivity to various forms of instruction (e.g., if you are only used to lectures, then participation and application might be more difficult to get used to at first), that does not mean that other forms of instruction are not valuable (e.g., once learners get used to participation and application, they can find it very helpful). Derek explained why he feels that people might disagree with this, and why they too quickly make judgments and statements that certain forms of learning might not work at all in certain cultures:

To a Western educator, when they come to a Chinese classroom, because it looks apparently so different to what they are used to, sometimes they will also think that what they have learned in the West is not applicable to the Chinese. And I have actually seen this in articles and presentations where people talk about these kinds of things. For example, you have this Western scholar who has been doing collaborative learning or project based learning or whatever, and they went to China for a couple of weeks and they come back to say, this kind of thing is not going to work in China. And I think what they have missed is they want the concept or theory to apply as is, as it is in the Western settings. They don't understand the principles behind those theories enough to adapt it to a different culture. If they understood it well enough, then they could actually see that there are applications that work if presented right. (Derek)

Derek indicates that if people do not understand the deeper principles behind the instructional design theories, they mistakenly might think they do not apply in another cultural context (see Fig. 1).

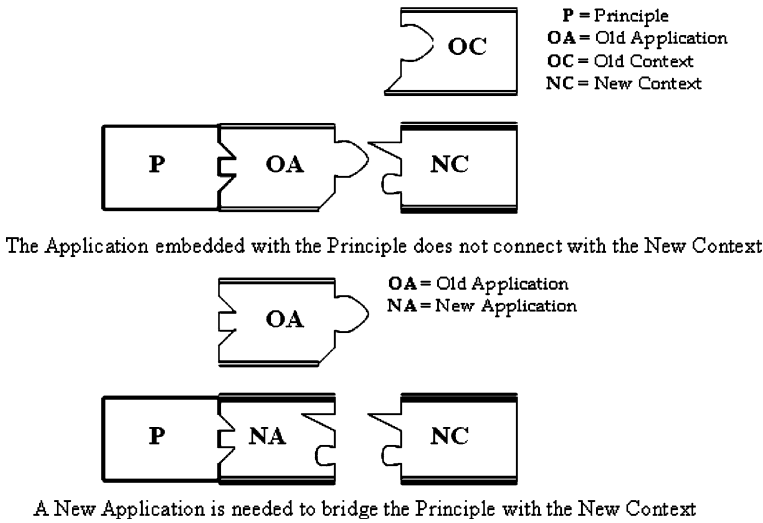


Fig. 1 Separating deeper principles from particular applications

Professionals often seem to embed the *application of a principle* in their own cultural setting with the *principle itself*, and so when their *application* of the principle seems difficult or impossible in a new context, instructional designers might mistakenly consider the *principle itself* as inapplicable. Derek stresses that we need to understand the principles deeply enough so we can separate them from particular applications and be open to alternative forms of application in different cultural contexts. He said that now when he attempts to teach a “Western concept” in a Chinese setting (e.g., problem based learning), he will try to find both Western examples and Chinese examples to use, finding ways in which principles can be translated into different contexts.

Identifying gaps and building bridges

The concept of building bridges seems to be associated with being more aware of and flexible to the possibility that your own conception of things (e.g., time and schedules, rules and relationships, social and educational expectations, and so on) is not the only view that exists and is valid. The key to bridge-building lies in finding where the key differences in the current expectations and abilities of learners from different cultures are, and then bridging those gaps through such things as the additional support needed to be successful with the instructional experience at hand. Although it is easy to just focus on all of the differences between cultures and feel frustration over where to start, Shawn discusses how building bridges is feasible and smart:

You might start to think, oh my gosh, can I teach anything? How far back do I actually have to go? Well, it's not quite that bad. *But you need to be much more aware, as you are moving through the instruction, who these people are, and where the danger points are. And when I say danger points, it is places where people can go off the rails unintentionally...* You need to be careful to

not situate them in a foreign concept, and then they don't get it, and you just move on to the next thing...If that happens online and that thing is a prerequisite for the next thing, then you are in trouble... *You need to look at where are we starting from, because we are not all starting from the same place.* (Shawn)

As Shawn points out, the most important bridges to build are at those points where people might unintentionally misunderstand. It is not because of unintelligence or a lack of effort, it is because something is situated in a foreign concept that they are not used to. Instructional designers need to be careful of those things, whether it is in the content itself (e.g., examples given, terminology used, etc), or in the instructional design strategies (e.g., expecting participation, using application activities, etc), so that they can be more explicit about what is expected, and provide the additional support that might be necessary to get learners to that point. In their interviews, several participants pointed out that it is not always bad to introduce foreign examples, just that they often need to be accompanied with more support and explanation than typically is assumed. Three of the most commonly mentioned ways to find gaps are: (a) immersing oneself in the culture, (b) integrating learner feedback in up-front analysis, and (c) integrating learner feedback through formative evaluation.

Shawn recapitulates what questions he asks in determining where the gaps are that need bridges built in this way:

So what are the starting points we need to look at? What is it you are trying to get them to do? *What is your objective, and is it anywhere within their frame of reference?* What is their frame of reference? This is something that we tend to skip so much of—because we assume that if they are already this far along, of course we assume they will know how to do this, or know how to do that. But thinking about prerequisite knowledge, how are we situating what it is that we are teaching them. *Are we situating it in a context that also assumes a whole range or breadth of knowledge and experience that some of our target population might not have? How are we expecting them to even behave in the course, and is that within their frame of reference? There are all those kinds of things that we assume, but which we need to find out where they are coming from.* (Shawn)

Shawn again emphasized the importance of discovering what the learners' frame of reference is, in order to see if we are assuming they have a prerequisite knowledge or experience that they do not, in which case building bridges would become paramount.

As Fig. 2 illustrates, there are often gaps between the way the instructional experience was designed and the expectations and capabilities of the learners it was designed for. As is frequently the case, the instructional designer unconsciously assumes the learner is a lot more like himself or herself than they in reality are; they seriously underestimate how important the differences in context are. Perhaps this is why it has been said that if you are using the ADDIE model (Analysis, Design, Development, Implementation, and Evaluation) in cross-cultural situations, Analysis should take more like one half of the time than one fifth of the time.

This research yielded several examples of this process, one of which was Rose's experience developing instruction in Egypt. She described how she was afraid in the

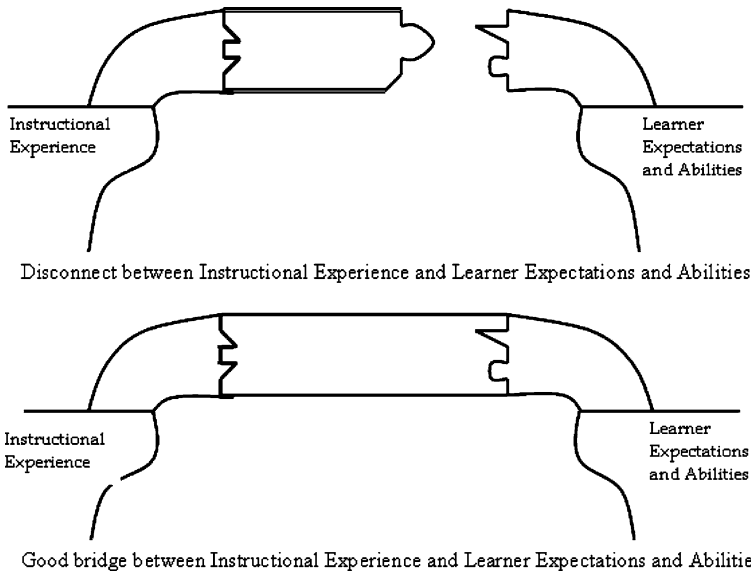


Fig. 2 Building bridges between instructional experience and learner expectations and abilities

beginning that her assumptions about what was “right” would cause the kinds of learning strategies that she was introducing to fail:

So I remember grabbing on to things I was learning about the culture to find commonalities... For this project in Egypt, you know I was bringing a Western methodology and set of assumptions to a Middle-eastern environment, and so what I found myself doing was surrounding myself with the Egyptians and visiting many local environments and trying to find...what the were bridges that would help me to just introduce some of these ideas... (Rose)

Through surrounding herself with Egyptians and immersing herself in local environments, Rose felt that the current lecture-only style of an educational system (introduced by the British) seemed to be so markedly different from the inherently social nature of most Egyptians. So she tried to utilize their social nature as a bridge to integrate Egyptian learners into an instructional environment that was focused more than they originally expected (based on their previous experiences with formal education) on interaction, problem solving in teams, and creativity in project conceptualization and design.

Coupled with these activities, Rose found a strong need to take a step back even further and teach meta-cognitive strategies like brainstorming (where there can be more than one right answer, and answers can come from anyone), note-taking, and various approaches to creative problem-solving; not necessarily because learners have never done these things before, but because they had never been asked or taught how to do these kinds of things in formal education environments before. Although she met with some resistance in the beginning, she was successful, getting positive feedback from her students regarding her efforts to understand and start from the learners’ context and abilities.

The participants interviewed as a part of this study make a strong case that there are deeper and perhaps more universal instructional design principles that need to be separated from particular application. At the same time, however, they immediately couple this with an awareness of the need to find out where people are coming from so one can know where and how to build bridges. In addition to explicitly teaching certain meta-cognitive skills, the participants gave other examples of attempts at building bridges included supplementing the instruction with a wider variety of appropriate examples, finding ways to increase learner flexibility, offering language support, and using local instructors to help design and deliver online instruction in a blended learning environment. Additionally, the participants spoke of the need to establish upfront a greater degree of dialogue with all stakeholders involved in the design process.

Conclusions and directions for future research

Some are beginning to realize that “culture itself cannot be objectified as just another factor to be programmed into designing a distance learning course” (Chen & Mashhadi, 1998, p.10). Aware of the pivotal and complex influence culture has on learning, and thus on the learners’ interaction with online instruction, an increasing number of researchers have argued that instructional designers need to be more sensitive and responsive to cultural differences (Bentley, Tinney, & Chia, 2005; Chen & Mashhadi, 1998, Chen, Mashhadi, Ang, & Harkrider, 1999; Henderson, 1996; Kawachi, 2000; Looi, 2003; Mayor & Swann, 2002; McLoughlin, 1999; McLoughlin & Oliver, 2000; Monajemi, 2003; Robinson, 1999; Spronk, 2004). The goal of this research was to uncover some of the issues and practices regarding the cultural responsiveness that has developed in the lived experience of multiple practitioners from around the world.

This research presents questions regarding the level of awareness these practitioners have concerning potential cultural differences that exist among international learners. The major differences identified could be categorized into the following four areas: general cultural and social expectations, teaching and learning expectations, differences in the use of language and symbols, and technological infrastructure and familiarity. We have touched upon how these participants became aware of cultural issues through both informal and formal means. Unfortunately, these participants encounter certain barriers to their ability to be as responsive to cultural differences as they would like to be (i.e., an over focus on content development, a relative lack of evaluation in real-world practice, and the less than ideal roles instructional designers assume in the larger organizational structures involved).

The researchers offered the metaphor of bridge-building to suggest how an increased sensitivity to cultural differences can change the practice of instructional designers. Additional efforts are needed to educate and get buy-in from other stakeholders to engage in more learner analysis and evaluation. The effort, however, is worth it because it will make instructional designers better able to understand the deeper principles of instructional design and how to apply them in a wide variety of cultural contexts and venues.

Clearly, more research needs to be done concerning the cultural aspects of online instructional design. Such research might begin by addressing the following questions:

- How can each of the proposed categories of learner differences be expanded, and how can we better measure where learners stand in relation to each of the key cultural variables?
- What changes in models and methods are needed to facilitate more sensitivity and responsiveness to cultural differences, overcoming the three traditional barriers identified in this research? What else can be done to move towards overcoming these barriers?
- What is the influence of Western culture on limitations in the field of IDT as a whole? How should the education of instructional designers be changed? What is the best way to approach the restructuring of organizations and re-envisioning of the role of instructional designers in order to be more culturally responsive and helpful?
- Are there indeed universal principles for instructional design (which can be separated from their particular application)? If so, what exactly are all these principles, and how can they best be tested and utilized?
- What is the process by which learners change and adapt to instructional techniques and approaches that are foreign to them—and how can we help to bridge the gaps more effectively?
- How can we find more ways to prove that being culturally responsive is worth it in the long run (for both financial and ethical reasons)?

The sheer amount of content being developed in the West and exported via the Internet to other cultures highlights the crucial need to explore these questions more thoroughly in order to respond to the global challenge of forging a common future that is fair and productive for everyone.

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