

Ten Guiding Principles for Designing Online Modules that Involve International Collaborations

David Porcaro
Seward Incorporated, USA

Carol Carrier
University of Minnesota, USA

ABSTRACT

As ideas and personnel flow across borders, there are many opportunities for instructional designers to collaboratively design online modules with international teams. These collaborations can take many shapes, as varying levels of localization and within-team communication are employed. This paper looks at ten guiding principles that are shaping the work of an online module development project for training inservice teachers in Jordan. These principles can be effectively applied to a variety of cross-national collaborations for a wide range of settings.

Keywords: *Collaborative Design; Culture; Guiding Principles; Instructional Design; International; Project Management*

INTRODUCTION

Opportunities for partnerships that produce high quality online learning materials for both pre- and inservice teachers in developing countries are increasing as more governments, ministries of education, and donors look to online learning as an efficient and motivating approach to developing teacher skills. This article provides guiding principles that have proven useful to experienced instructional designers who have worked across multiple countries to design and implement such online teacher training projects. Regardless of the specific country where the materials will be implemented, common challenges and obstacles arise that face the instructional design team. A set of guiding principles is presented, using as an example an online teacher development project in Jordan which serves as a substitute to live, face-to-face training for teachers and other school personnel who are new to teaching and working in transformed schools in that country.

INTERNATIONAL INSTRUCTIONAL DESIGN

Cross-cultural instructional design issues have become much more relevant to instructional designers in recent years. As online technologies connect learners, designers of these learning experiences must grapple with cultural issues that arise from global interactions. As designers undertake more useful context analysis, they must make cultural considerations a priority (Perkins, 2008). However, there are several different types of international or cross-cultural contexts to consider when designing online learning. For instance, due to the growing number of international students in places like the United States (Institute of International Education, 2011), a common issue in Western higher education settings these days is the need to design online courses for international students within a local university (Erichsen & Bolliger, 2011; Liu, Liu, Lee, & Magjuka, 2010; Wright & Lander, 2003). Even instructional designers who never leave

their home face the challenge of communicating ideas within an increasingly multicultural classroom.

The ease with which online lessons and courses can be transferred to new settings has created additional opportunities for educators to be asked to design for settings and languages which are not their own (Wright, 1997). As they design for this new and unknown cultural setting, they often make unforeseen mistakes along the way (Edmundson, 2006). In response, some suggest that designers should not spend too much effort in designing for culture, since they do not have the time nor the resources to devote to cultural adaptability in their design (DeBry, 2002). Others suggest that learners will simply accept the design as is and make their own accommodations for cultural elements (Henning, Westhuizen, Maseko, Diseko, & Gravett, 2004). It is possible, however, that instructional designers can gain cultural sensitivity and reflexivity within their own practice through exposure to projects from a variety of cultures and settings (Rogers, Graham, & Mayes, 2007).

Increasingly common are courses designed for one setting but reused in others. In these cases, Learning Objects (LO) and Open Educational Resources (OER) can be built from the ground up with repurposability in mind (Gunn, Woodgate, & O'Grady, 2005). This can be done, for example, through Learning Objects with Multicultural Affordances, which highlight cultural issues and place them at the center of discussion and learning (Amiel, Squires, & Orey, 2009). But as Perkins (2008) points out, localization is not a simple thing; and there are many levels at which learning can be localized. Designers are often limited in the resources available to them and too often these LOs and OERS are left without contextual anchors or fail to meet the needs of the new context. More often than not, the resources spent adapting a LO or OER could be better spent custom-building a new learning experience rather than attempting to recontextualize an existing learning object.

While these arguments point to the value of custom-designed instruction, not all instruction need or ought to be built in the West and distributed to the Rest. Local capacity for instructional design and development is increasing world-wide and local designers have the greatest capacity to understand the local context and adapt accordingly (Arias & Clark, 2004; Perkins, Gwayi, Zozie, & Locke, 2005). However, while local instructional designers may provide the most contextually-bound understanding of what learners need and how to communicate ideas to them in the most motivating and relevant way, too often they lack the capacity or resources to take on the many large ID projects that are needed in their countries. In these cases, it may be best for international instructional designers to work collaboratively with local designers to create online learning.

Although this collaboration brings together the resources and expertise of internationally-recognized designers or firms with the contextual knowledge of local designers, the marriage is not without its rocky roads and miscommunications. This paper seeks to present guiding principles for successfully managing such international collaborations in designing online learning. We seek to present as a case the design of online teacher professional development modules for an education development project in Jordan.

PROJECT CONTEXT

This project was part of the USAID-funded Education Reform Support Program (ERSP), which seeks to collaboratively develop policies, strategies, and outreach systems to support the Jordanian Ministry of Education's vision for the future of education in Jordan. This program focuses on four areas: Early Childhood Education; Youth, Technology, Careers; Professional Development; and Data Use for Decision Making. The client in this instructional design project was Creative Associates International, Inc. under contract with USAID Jordan. As part of this

program, ERSP provides support to several new schools that have recently been built as part of the USAID-funded Jordan Schools Project. The ERSP program was designed to transform the primary and secondary education system with new forms of teaching and learning. These include active and cooperative learning, new roles and responsibilities for all teachers and administrators, and new models of community-parent-school interactions. Many kindergartens have also been refurbished while new early childhood teachers and administrators are being trained in methods of effective early childhood education. In addition, a school-to-career program is being developed that includes a Management Information Stream e-module guiding a project-based course for high school students.

To support this transformation, the ERSP program has produced and delivered an extensive face-to-face training program for Jordan teachers and other school personnel with support from partner organizations that include Save the Children along with two Jordanian organizations, CADER (ChangeAgent for Arab Development and Education Reform) and ASK for Human Capacity Building. The original trainings were designed to be face-to-face and meet the training needs of the school personnel. To address the needs of future teachers and to extend the reach of the trainings, Seward Inc. was asked to develop online trainings that would target selected key topics addressed in the existing face-to-face training curricula. The goal in this online course design is not to replicate all of the ERSP trainings but instead to focus on key ideas and information that school personnel will find critical to their effective functioning and which were the most suitable for online delivery.

GUIDING PRINCIPLES

As we reflected on our work throughout this project, we recognized that there were ten principles that guided our collaboration. It is important to note that these guide the work, not define it. Throughout the project, we acknowledge the many instances where we did not follow these principles totally. Failures in these areas happened as did successes. But having guiding principles helped us to communicate through our failures and keep the project moving successfully forward.

10 Guiding Principles for International Collaboration in Online Learning

•Project management

- Use a written vehicle to memorialize the understanding with the client, of what will be delivered, at a high level, and to clarify roles and responsibilities.
- Be deliberate about establishing a foundation of trust and rapport from the very start of the relationship.
- Foster regular, ongoing contact between the instructional designers and key client personnel during the design/development process.
- Work with partners to establish a schedule of due dates and milestones that is realistic.

•Online Module Development

- From the very beginning, manage the expectations of clients regarding the capabilities and limitations of the technology systems in the schools.
- Acknowledge the efforts and communicate respect for the ways in which that content has been developed and presented in its original format.
- Demonstrate respect for cultural norms and symbols.
- Plan to accommodate extra time for working with multiple languages.
- When video and animation must be restricted, leverage other capabilities that encourage schools.
- Throughout the design process, keep in mind the perspective and capabilities of the end-user.

Figure 1: 10 Guiding Principles for International Collaboration in Online Learning

These principles seem to fit into two broad categories. The first four deal with general project management, and may, to some extent, parallel established project management practices. However, we found them to be essential in ensuring cross-cultural online learning design was successful. The second group of six principles is more specifically related to online module development. For both groups, it is worth considering each of these principles in light of how they apply within the context of the collaborative international design and development of online instruction for teachers and other school personnel project.

1. Use a Written Vehicle to Memorialize the Understanding with the Client, of What Will Be Delivered, at a High Level, and to Clarify Roles and Responsibilities

The format for this understanding is not critical, but its purpose must be to communicate in writing what will be delivered, including schedules of deliverables as well as roles and responsibilities. Seward Inc. uses an approach called the Macro Design Document to express the design features of the product for the client. Intended to serve as a communication tool at a high level, including aspects such as timelines, general look and feel of the training, learning objectives, technical requirements, etc. The client reviews what is planned and must sign off on that plan, to minimize misunderstandings of expectations.

Because this is produced and discussed early in the process, there may be elements that must change once the translated content is clearly laid out and the implications of how concepts are to be treated is better known. In effect, the Macro Design Document sets the stage for the product and provides the client with a clear vision of what will be produced. Discussions of this Macro Document with the client at an early stage help to clarify and solidify agreements about the overall direction of the project. It also serves as an important tool to layout accountabilities for each partner.

2. Be Deliberate about Establishing a Foundation of Trust and Rapport from the Very Start of the Relationship

Wherever feasible, a live, face-to-face meeting between the design team and the key players representing the client is the optimal start to a project. These meetings should allow every attendee to provide a brief introduction about themselves and their respective roles in the project. Using a simple but short “ice-breaker” activity which allows attendees to relax and chuckle a bit can diffuse tension with groups who do not know each other, but who know they must work together first come together.

Due to the initial live meetings between the ERSP and partner staff who developed and delivered the initial training and the team from Seward Inc., when Seward Inc. developers began to make decisions about which elements of the content to select for online training, it was much easier to broach these decisions with key personnel later. Both groups had the opportunity to spend some time with each other in small group discussions. Some degree of familiarity and trust developed, even within the short period of one week. Later, as emails were exchanged and materials were critiqued, these early interactions supported a sense of working as a team to make the best choices for the project.

3. Foster Regular, Ongoing Contact between the Instructional Designers and Key Client Personnel during the Design/Development Process

The instructional design team must show initiative in ensuring that regular contact and communication take place between their team and the subject matter experts (SMEs), or other personnel working on the project occurs. Once the instructional design team left Jordan and began to work on the design of the materials, many questions naturally arose.

While the Design Document served as the guide to the product, as translated materials became available, it was clear that certain changes would make the product stronger. These changes needed to be communicated and buy-in gained. Given the differences in time zones, it made most sense to exchange emails with the client and to send documents that could be reviewed electronically. Ensuring that emails were worded in a clear manner and that return emails from the client were acknowledged and responded to in a reasonable timeframe was another important element of establishing a productive working relationship.

4. Work with Partners to Establish a Schedule of Due Dates and Milestones That Is Realistic

A delicate part of any project involving international partners can be the back and forth exchange of information and input so critical to the success of the product. Like many projects, the Jordan project had a client and subject matter experts with a variety of different projects and priorities and this project competed with others for their time and attention. Often there were unpredictable elements in the ministry's calendar, long timelines for revisions, and unforeseen signoffs needed to upload materials to the ministry's servers.

Recognizing this, it is the design/development team's role to take the initiative and continue to keep things moving as well as push for deadline dates to be achieved for key aspects of the schedule. It is important that this role be done with diplomacy and persistence. When this is done gracefully and diplomatically, in a positive spirit and with humor, clients and subject matter experts come to respect the role of the timekeeper. Multiple emails may need to get sent, reminding clients of the need for their input and response, of missing information that only they can supply, or simply to seek their input before moving on to a next step in the process.

A helpful tool we employed was a color-coded chart showing the signoff dates for milestones, which provided a visual picture of the location within the process of each course, and who was currently responsible to move the course forward. With different time zones and calendars in international projects, this role is not as straightforward as it would be in a domestic project. It is easy for the instructional designer to be unaware of, or to have forgotten, a critical national holiday where offices are closed or people are on holiday. Or to try to make a phone contact when international partners are still in bed!

5. From the Very Beginning, Manage the Expectations of Clients Regarding the Capabilities and Limitations of the Technology Systems in the Schools

When a product is to be delivered across a broad array of schools, it is not uncommon to find great variation in the bandwidth capacity within these schools. Differing capacity means that the product must be targeted for the lowest level of capacity or the most common capacity. Clients who themselves may be used to a higher level of power in their daily work can be disillusioned about the finished product if these constraints are not made clear at the beginning. In many of the schools in Jordan, capacity would not permit video or complex, extensive graphic animation. While both of these instructional assets would have strengthened the product, threshold capacity was simply not currently available.

Because this product was to be used across hundreds of different school locations where technology capability varies widely, the decision was made to target the modules at a level where teachers and others could complete them without unnecessary slowness. The existing portal, Eduwave, was already accessible in the ministry and the schools and was the choice of the client for delivery of these new modules. This decision led to certain advantages as well as some disadvantages. The advantages were that the technical support staff understands the portal well

and knows how to maintain it. Many users are familiar with it as well. On the other hand, the portal limited screen real estate considerably and constrained navigation to the program's interface.

For these reasons, it was important to be explicit about the findings from this delivery system analyses which were conducted by the design team. In an early client meeting, the team laid out both the advantages and disadvantages so the client did not inadvertently develop a mental image of what the product would do, only to find that it did not deliver key features they hoped to experience.

6. Acknowledge the Efforts and Communicate Respect for the Ways in Which That Content Has Been Developed and Presented in Its Original Format

Having one's content critiqued by others for inclusion in online materials can be a threatening experience. If not handled well, it is likely that the original creators of materials can feel discounted or not respected.

In the Jordan project, a massive curriculum had been developed to prepare teachers and other school personnel for the new approach to the schools and for school personnel's new roles and responsibilities in making the schools effective. This training was intended to be delivered to the entire current population of professionals. Because the Seward Inc. project could only sample elements of that massive curriculum, it was important to pick wisely those pieces of information and content that would be most impactful. Under these circumstances, it is important to find the balance of using existing materials "as is" versus selecting or blending ideas so that they can be delivered efficiently.

7. Demonstrate Respect for Cultural Norms and Symbols

In most cases, the instructional designers are not familiar with the cultural norms and patterns of the foreign country so it can be tempting to make incorrect assumptions. The willingness to ask honest questions about what is appropriate can prevent unnecessary gaffs in visual or verbal materials. In this project, these modules were to be used in Jordan schools, requiring visuals that reflected representative people and scenes from Jordan schools.

Having said this, the Jordan culture is not monolithic. People attend both mosques and churches; some women wear traditional dress, others wear western style clothing. Efforts to recognize that diversity is an important foundational principle for the new schools also needed to be reinforced in the materials developed to prepare teachers and administrators who will work in these schools. Ensuring the review of the modules by local experts regarding this dimension is a fundamental activity that will surface inappropriate selections. In one case, the client changed a picture during review, in order to reflect the fact that teachers in a government girl's school would all be women.

8. Plan to Accommodate Extra Time for Working with Multiple Languages

When multiple languages are involved, and translation is required, the development time is greatly increased. Identifying competent translators who can deliver the product in the timeframe needed is not always a straightforward task. Establishing a small cadre of translators who can be called upon, and relied upon, is a good strategy for the design team to pursue.

In this project, the content materials were originally created in Arabic which had to be translated into English in order for the designers and developers to work from them. The English version of the modules was then reviewed by the client, whose first language is Arabic. Following this review, and after responding to the feedback to the English version, the modules are then

translated into Arabic to be reviewed once again by the client who now was viewing them in Arabic, her first language.

This process can lead to some uncertainties for the designer. Were the initial translations accurate? Would the client approve the Arabic version or find different issues once the material has been converted to Arabic? Is there a terminology that the ministry uses that may be different from local practitioners' use? In one case, the team in Jordan was not satisfied with translation in Arabic, but felt they lacked the expertise to make editorial corrections to the content. Thus, an external Arabic editor was hired to work with the translated text. These back and forth translations double the time needed for review of the product and introduce the possibility that some changes made to initial feedback will have to be undone when the second version is reviewed.

9. When Video and Animation Must Be Restricted, Leverage Other Capabilities that Encourage Interactivity within the Module

This situation can present a difficult challenge to a designer who finds his or her toolbox limited when such familiar capabilities cannot be tapped. On the other hand, it challenges instructional designers to "dig deep" and produce alternatives in their designs that motivate and challenge the end user. Due to constraints placed upon the Jordan instructional modules by less than powerful bandwidth capacities in the schools, opportunities for animation and video were restricted in our example's module development. This increased the need to use techniques that users could respond to which engaged them in some degree of interaction within each module.

Several strategies were used. Screens of content were kept brief with opportunities for reveal bullets, drag and drop exercises, etc. Audio was used sparingly but strategically, such as to present a quotation or to highlight a key idea. In one case, video dialogues were created with only pictures, text and buttons that moved the learner from one part of the dialogue to the next in a slide-show fashion. In this way the experience of watching a video of a teacher and student interacting could be simulated without bandwidth-hogging elements.

10. Throughout the Design Process, Keep in Mind the Perspective and Capabilities of the End-user

The international designer may get exposure to learning context through an initial site visit. However, the time and expense of international travel typically does not allow for frequent visits by the designer to the learning site. Nor does it allow the designer to have extensive interaction with the learners to fully understand their needs.

In this project, our interaction with the targeted teacher population was very limited during our initial visit. The designers had to envision in their minds the capabilities of the end user, as well as how the design would impact education in Jordan. The ERSP project partners supplied Seward Inc. designers with CDs loaded with pictures of classrooms and students in Jordan, which allowed us to visualize more fully the schools, teachers, and students. This brought a reality to the work that was hard to experience thousands of kilometers away. Other times, it meant understanding design preferences, technical abilities and expectations of the end user, which could be quite different from those of the designers.

CONCLUSION

For both designers and content experts, the process was challenging and at times frustrating. Focusing on these guiding principles helped us to manage this project in a way that allowed working through miscommunications, misaligned expectations, and misunderstandings in a

professional and respectful manner. While many of these guiding principles mirror typical project management principles, their use in an international online course design process makes them worth reflecting on, especially those that are specifically related to online module development. As other instructional designers work with local and international education development partners—whether they are donors, contracting agencies, instructional designers, or subject matter experts—they can apply, adapt and add to these guiding principles in their own practice. This may lead to more effective, and culturally relevant, collaborative instructional design with less effort, cost, and frustration.

ACKNOWLEDGMENT

This work was part of the USAID-funded Cooperative Agreement No. 278-A-00-09-00305, subcontracted under Creative Associates International Inc. The opinions expressed do not represent those of project partners or funders. This paper is based on a presentation given at the 56th Annual Conference of the Comparative and International Education Society on April 26, 2012 in San Juan, Puerto Rico.

REFERENCES

- Amiel, T., Squires, J., & Orey, M. (2009). Four strategies for designing instruction for diverse cultures: Context and localization of learning objects. *Educational Technology*, 49(6), 28–34.
- Arias, S., & Clark, K. A. (2004). Instructional technologies in developing countries: A contextual analysis approach. *TechTrends: Linking Research & Practice to Improve Learning*, 48(4), 52–70.
- DeBry, D. P. (2002). Analysis of emerging practices in globalizing instructional materials. *Educational Technology Research and Development*, 50(4), 73–82. doi:10.1007/BF02504988
- Edmundson, A. (Ed.). (2006). *Globalized E-Learning Cultural Challenges*. IGI Global.
- Erichsen, E., & Bolliger, D. (2011). Towards understanding international graduate student isolation in traditional and online environments. *Educational Technology Research and Development*, 59(3), 309–326. doi:10.1007/s11423-010-9161-6
- Gunn, C., Woodgate, S. & O’Grady, W. (2005). Repurposing learning objects: a sustainable alternative? *Alt-J*, 13(3), 189–200.
- Henning, E., Westhuizen, D., Maseko, J., Diseko, R., & Gravett, S. (2004). “Adapting” cultures for localisation of eLearning: Multicultural overcompensation or access to global learning pathways? Presented at the World Conference on Educational Multimedia, Hypermedia and Telecommunications, Lugano, Switzerland.
- Institute of International Education. (2011). *Open doors 2011: Report on international educational exchange*. New York, NY: Institute of International Education. Retrieved from <http://www.iie.org/en/Research-and-Publications/Publications-and-Reports/IIE-Bookstore/Open-Doors-2011>

- Liu, X., Liu, S. Lee, S., & Magjuka, R. J. (2010). Cultural differences in online learning: International student perceptions. *Journal of Educational Technology & Society*, 13(3), 177–188.
- Perkins, R. A., Gwayi, S. M., Zozie, P. A., & Lockee, B. B. (2005). Distance education in Malawi. *Educational Technology Research and Development*, 53(4), 101–108. doi:10.1007/BF02504689
- Perkins, R. A. (2008). Challenges and questions concerning “culturally-sensitive design.” *TechTrends*, 52(6), 19–21. doi:10.1007/s11528-008-0212-3
- Rogers, P., Graham, C., & Mayes, C. (2007). Cultural competence and instructional design: Exploration research into the delivery of online instruction cross-culturally. *Educational Technology Research & Development*, 55(2), 197–217. doi:10.1007/s11423-007-9033-x
- Wright, C. R. (1997). Educational technology consulting in developing countries. *TechTrends*, 42(1), 35–40.
- Wright, S., & Lander, D. (2003). Collaborative group interactions of students from two ethnic backgrounds. *Higher Education Research & Development*, 22(3), 237–251.

Copyright for articles published in this journal is retained by the authors, with first publication rights granted to the journal. By virtue of their appearance in this open access journal, articles are free to use, with proper attribution, in educational and other non-commercial settings.

Original article at: <http://ijedict.dec.uwi.edu/viewarticle.php?id=1755>