

Do Educational Technology Training Workshops in Developing Countries Really Work?

*Mr Peter Fenrich, Dr Krishna Alluri**

Group for Advanced Information Technology,
Technology Centre, British Columbia Institute of Technology

*The Commonwealth of Learning, Vancouver, BC, Canada

ABSTRACT

COL organized a workshop on designing and developing computer-based and web-based training materials in Pune, India. The focus was on instructional design, media selection, and user-interface design for creating instructional new media software. Participants completed their projects with support from the facilitator through email listserv. This paper analyses the experiences.

INTRODUCTION

The Commonwealth of Learning, in cooperation with the Advanced Computing Training School of the Centre for Development of Advanced Computing in India, sponsored a workshop on designing and developing instructional new media (computer-based and web-based training) materials in Pune, India. The British Columbia Institute of Technology was engaged to provide a facilitator for the training. The workshop focused on teaching principles of instructional design, media selection, and user-interface design for creating instructional new media software. The workshop was 13 days long and had 20 participants. The content was taught each morning. Each afternoon the principles learned were applied in the lab by teams to create a computer-based training program. After the workshop, the team members completed their projects with ongoing support provided by the facilitator through email and courier. The following topics cover both the short-term and expected long-term results of the workshop. This paper is an extension of the paper presented at the 2002 Pan-Commonwealth Forum entitled "Lessons Learned About Giving an Educational Technology Training Workshop in a Developing Country".

PROCESS NEEDED TO COMPLETE THE PRODUCTS

In general, by the end of the 3-week workshop, all of the teams completed or were close to completing a storyboard (a paper-based version of what each screen will look like) and the programmers learned how to use the programming templates so that the storyboard could be pulled into the authoring tool. In general, the major tasks that remained included creating the media (e.g., video, photographs, and animations), programming, evaluating, and revising the software programs.

After the workshop, email was a critical support component in the process needed to complete the products. Those who did not already have their storyboards signed off (i.e., up to a professional standard with respect to instructional design), later emailed their storyboards to the facilitator (an instructional new media designer). The facilitator suggested recommendations and revisions and emailed the storyboards back. This process continued until the storyboard was signed off.

Once the media was obtained, both the media and storyboard text were pulled into the programming templates. At this point, courier service was helpful for sending the "draft" programs to the facilitator for evaluation. Detailed feedback, which explained what changes were needed and why the changes were needed to ensure learning, was provided by email. This process continued until the resulting program was signed off.

THE TIME NEEDED TO COMPLETE THE PRODUCTS

For some of the teams, it took up to two years to complete their computer-based training productions. Most teams had one or two significant problems to overcome. For example:

- The team may not have had a programmer. The team had to either contract out the work or wait until the programmer of another team could do the work.
- Programming time was significant as the authoring tool is fairly complex and most did not have experience using the other software tools such as those for capturing and digitizing media. In future workshops, the programming could be less problematic if a programming language (such as Java) was used rather than an authoring tool (such as Macromedia Director). The major advantage is that it is easier to find programmers who already have expertise with a common programming language and consequently avoid the steep learning curve of using an authoring tool.

- Not all of the teams had access to the hardware and/or software needed to capture and digitize the media. These teams had to wait until another team's equipment was available or for another team to help them.
- Arguably, the biggest difficulty, which compounded all of the above problems, was time. After the workshop, none of the team members were given release time to complete the work. (One team even had full-time duties during the workshop.) Many individuals already had exceptionally high workloads. There was simply no time during the day to take on this new task of completing the computer-based training package. Most of the individuals had to complete the work on their personal time (which was already limited due to their excessive workloads).

QUALITY OF THE FINAL PRODUCTS

In general, all of the final products were of good quality especially considering it was a first effort. Quality was assessed with respect to instructional design, use of media, screen and user-interface design, and programming.

Instructional design

The instructional design was done very well for all of the productions. This was ensured through the detailed feedback that was given both during and after the workshop. In particular, all of the products were highly interactive in that the learner had to regularly think about the content being taught and received detailed feedback for each question answered.

Use of media

All of the teams used media effectively. Guidance in this area was given throughout the evaluation and revision process.

Screen and user-interface design

Although each product had very functional screen and user-interface design, in general, these were the weakest areas of all of the products. For example, the screen locations of some answer buttons for questions, white space for text, and some colour selections worked but could have been improved. However, most importantly, these weaknesses did not compromise learning in any way.

The problems that led to this can be solved in future workshops by teaching the screen and user-interface lesson early in the workshop and providing programming templates before the workshop begins.

ANTICIPATED LONG-TERM RESULTS OF THE WORKSHOP

There were a number of long-term benefits as a result of the workshop:

- All participants have a much stronger foundation in instructional design principles. This will lead to more instructionally sound course materials, lectures, and computer-based training products that each develops in the future.
- Learners both now and in the future will benefit from the computer-based training products that each team created.
- The participants will recognize where and when computer-based training (and other instructional technologies) will be a more effective instructional solution. So, decision-making will be based on better information.
- All participants expressed an interest in developing more computer-based training products. Some subsequent productions have been completed and others are anticipated. This workshop “opened the door” to future uses of the technology.

Given that the facilitator is available to provide feedback support on future productions, high quality can be expected. Feedback support is necessary since no participant can become an expert after one workshop and producing one computer-based training software package. Expertise comes with continual learning through the design and development of numerous projects.

Cost-effectiveness of the Workshop

The initial workshop was essential since it would not be cost-effective for foreign consultants to design and develop computer-based training packages needed by developing countries. Building expertise within a country is the only logical way to proceed.

The overall workshop was cost-effective in that a number of computer-based training projects were completed with reasonable costs. However, the workshop will be even more cost-effective as future projects are completed.

SUMMARY

Educational technology training workshops can be very effective in developing countries if they are planned well, are delivered effectively, and have strong follow-up support. These workshops can cost-effectively result in high quality products both when delivered and in the future.

REFERENCE

Fenrich, P., & Alluri, K. (2002). Lessons Learned About Giving an Educational Technology Training Workshop in a Developing Country. Proceedings of the Pan-Commonwealth Forum on Open Learning: Transforming Education for Development.