

ESI Graphics Training

This Web-based training was developed for ESI, a small Federal government contractor. Many of its projects include communications components that require developing different types of products, such as publications, conference materials, Web sites, videos, or marketing materials.

This training was developed for ESI staff who are asked to work with computer graphics but who do not have any background or experience with them. Often, ESI's clients provide Web-quality graphics and expect them to be able to be using in print documents, or vice versa. Other times, people want to make changes to graphics but they don't understand the type of graphic that they need in order to do that.

While most ESI staff do not want to become graphic artists, much time and frustration could be saved if they knew the types of graphics to request from their clients and how to identify and edit graphics once they get them. This training was developed to achieve that goal.

Problem

For the past four years I have worked for a small company, ESI, which primarily does contract work for the Federal government. Many of our projects have strong communications components that require developing different types of products, such as publications, conference materials, Web sites, videos, or marketing materials.

ESI is a small company that has grown tremendously over the past five years. We currently have about 100 employees and two main offices—one in Washington, DC and one in Maryland—in addition to many field offices. Since we are in a period of rapid growth, many of our systems are in flux and straining to accommodate the additional staff, various office locations, and varying levels of staff experience. At the same time, we are working to meet the changing needs of our clients.

To date, ESI does not have a system for training new or seasoned employees. All training occurs on the job and as the need arises. In the past, there have been efforts to create "manuals" for employees on specific topics, but they are strictly informational and, once developed, they are not maintained or distributed to employees, and therefore, are not used. ESI management did conduct training on one of the manuals a few years ago, but it was mandatory and occurred after hours (from 5pm to 9pm for three nights) and in the office, which, as you can imagine, was very unpopular.

One area where employees need training is in using and editing graphics for various media. Due to the nature of its work, many of ESI's employees work with graphics but most have not had any training on how to do this.

This is where I come in. A large part of my work involves graphic design; therefore, many people come to me when they run into graphics-related problems. One of the most common problems I see is that clients provide Web-quality graphics and expect them to be able to work for print, or vice versa. Other times, people want to make changes to graphics but they don't understand the type of graphic that they need in order to do that.

To address these problems, people usually send me their graphics and ask me to fix them. And while meeting planners and editors do not want to become graphic artists, much time and frustration could be saved if they knew the types of graphics to request from their clients and how to identify and edit graphics once they get them.

Goals and Objectives

Project Objective

- To develop an asynchronous Web-based training for ESI employees that will provide a model for future internal employee training on other topic areas.

Learning Objectives

- Each time the learner is given a new graphic, he or she will be able to classify the graphic type, the media for which it is appropriate, and its features, including size and resolution.
- Each time the learner is given a graphic that is not appropriate for the desired media, he or she will be able to edit the graphic correctly so it meets the user's needs or determine if a new graphic is needed.

Analysis

To determine if my perceived need matches an actual need, I took a quick survey of ESI employees who work on communications projects. I listed five topic areas that I thought might be of interest and asked them to mark those where they or their staff need additional training. I also asked for suggestions for additional topics. Below are the results of this survey.

ESI Training Survey

Possible Areas for Training	Votes from ESI Employees
1. Graphics Editing for Print and Web	6
2. Writing HTML	3
3. Using Macromedia Dreamweaver or Fireworks	3
4. Writing for Other Media	4
5. Desktop Publishing	6

These results did not surprise me. Employees encounter similar challenges with desktop publishing as they do with graphics manipulation. If this training is successful, perhaps the next version can tackle issues around desktop publishing.

Audience Description

Educational level: Almost all ESI employees have at least a bachelor's degree and many have advanced degrees.

Background knowledge: Employees taking this training will probably not have any background in editing graphics, or, if they do, their knowledge will be very minimal. Most employees come from content-specific areas, such as child welfare, early childhood education, elementary or secondary education, or human resources. In terms of computer skills, all employees taking this training will have a working knowledge of a Windows-based operating system, basic word processing skills, and feel comfortable using Web-based applications.

Age: 22 to 55 years, with most being between 22 and 40 years of age. This is relevant because the training is delivered through the Web; older learners might feel less comfortable with this media than younger learners.

Motivation: The people who take this training will want to increase their graphics skills to be able to respond to client's requests in a timelier manner. They are both curious about the information and have a need for it.

Learning context: All employees have access to a computer with high-speed Internet access. Many have higher-end graphics programs installed on their computers, such as Photoshop, Illustrator, or Fireworks. ESI employs approximately 100 people who are split between two main offices and many field offices. For this reason, getting employees together to conduct a face-to-face training is very difficult, if not impossible. In addition, most employees are extremely busy and do not have large chunks of time available to attend a training.

Design

To meet the various needs of the ESI audience, I propose developing a 1 to 2 hour asynchronous web-based training. Because of the diversity of prior knowledge of ESI employees, the training will be designed so that users can skip through portions where they already have prior knowledge and skills. Also, employees will not have to go through the entire program at one sitting; they can stop and return at times that are convenient for them.

I will use the following strategies to facilitate learning:

- Provide appropriate amount and types of information for the audience and topic (chunking);
- Make the information meaningful and applicable to the user's work by providing real-life scenarios and examples;
- Provide a frame of reference so that learners can connect prior knowledge with new information and skills;
- Provide many opportunities for practice and application; and
- Provide periodic feedback to the learner through quizzes spaced throughout the training to let the learner know that he or she is actually learning.

For a detailed description of the instructional strategies used, see the **Design Report** for this project.

Competencies

This project meets competencies 1, 2, 5, 6, 7, 8, 9, 10, 12, and 14. A description of how this project meets these competencies is included below.

1. Take a systems view.

This course was designed to be a template for future ESI online courses so it was important that it fit into the company culture. To facilitate this, I surveyed both potential learners and those in the company who would benefit from increased capacity of ESI staff in this topic area. The course takes into account previous training efforts, stated and demonstrated corporate values, and possible barriers to implementation.

2. Use cycles of reasoning as tools for problem solving.

We followed the ADDIE Instructional Systems Design model for this training, conducting a needs assessment, designing and developing the instruction, and conducting a brief formative evaluation.

5. Conduct a needs assessment for learning or performance interventions

I conducted a needs assessment by surveying potential learners and SMEs within ESI. The results are included in the Preliminary Learning Brief (PLB).

6. Conduct a learning or performance instructional analysis

This project meets this competency in two ways. First, I analyzed who the learners would be. Second, I analyzed the instructional context, including where and when learners would be able to take the course and the technology and software available to them. Third, I conducted a task analysis with SMEs within the company to make sure the content of the training would meet their perceived needs.

7. Participate in the process of preparing a technology plan for your unit or organization.

The goal of this project was to develop an asynchronous Web-based training for ESI employees that would provide a model for future internal employee training on other topic areas. As described in the PLB, ESI currently does not use technology-based training to educate staff.

8. Apply various theories/strategies and current research, and consider local needs and constraints to design activities and experiences for learning

The Design Report details the instructional strategies used in this course, including where they are located and their rationale.

9. Design learning and performance products and resources that reflect an understanding of the diversity of learners and groups of learners

To accommodate the diversity of learners' experience and education, learners can skip directly to the quizzes at the end of each module to determine if they already know the content. The final capstone activity is reviewed by a SME within the company who will provide individualized feedback for learners.

10. Develop products and resources to support learning and performance

I developed various products and resources to support learning, including interactive demonstrations of the course content, a case study, interactive images, quizzes to get learners thinking about the content, and real-life activities that learners could put to use in their work at ESI.

12. Assess student/participant learning

To assess student learning, I developed quizzes and designed a final capstone activity that allows learners to demonstrate the knowledge and skills they acquired through the course.

14. Applying theories of diffusion, adoption, and change to a local problem, develop a change strategy

One goal for this project is to develop a prototype for ESI staff training that can be replicated and adjusted for other topic areas. Once this prototype was completed, I planned to approach ESI management to determine if this training model is something they would like to replicate with other topic areas. Additional topics employees have expressed an interest in include proposal development, desktop publishing, creating charts and tables for use in Word, and writing for PowerPoint presentations.