

# **Building Quality into E-Learning: Four Methods for Quality Assurance**

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# Quality?



# Presentation Overview

- Introduction
- Step One: Create a QA Plan
- Step Two: Focus on Instructional Design
- Step Three: Apply Specific Criteria
- Step Four: Reduce Costs & Barriers to QA
- Conclusion

# Quality – is Hard...



# Quality is Hard

## Section 4 – Asset Losses General Information

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### Sources of Asset Losses Data

The data displayed in this section comes from one of two sources:

- IMS/MM File Maintenance
- Mechanical interfaces from the D035A-Item Manager Wholesale Requisition Process System

ASSET LOSSES DATA ELEMENTS	SOURCE OF ASSET LOSSES DATA
Condemnations	D035A System Interface
Installations	D035A System Interface
On Loan	IMS/MM File Maintenance
Shipments to FMS	D035A System Interface
Shipments to NRA	D035A System Interface
Special Projects	IMS/MM File Maintenance
Modification	IMS/MM File Maintenance
Minus IAV	IMS/MM File Maintenance
Transfer to DRMO	D035A System Interface
Other	IMS/MM File Maintenance

# Quality Means Different Things

Frog Demo (00:05 / 28:29)

articulate®

Outline

1. Dissecting the Frog Dissection Demo
2. Drag & Drop Explained (5:01)
3. How to: Drag & Drop (5:58)
4. Working with Slide Masters (2:34)
5. How to: Slide Masters (3:10)
6. Player Navigation (2:37)
7. Miscellaneous Tips & Tricks
8. Course Design (1:48)
9. Leverage PowerPoint Animation (5:9)
10. Rethink Linear Navigation (5:6)
11. Don't Distract Learners (1:29)
12. Make Good Use of Screen (1:18)
13. Rework Clickable Areas (1:36)
14. That's it.



The Rapid E-Learning Blog

## Dissecting the Frog Dissection Demo

articulate  
powered by Pearson

SLIDE 1 OF 14 PAUSED 00:05 / 28:29



# Quality means more than “Pretty”

Concrete Basics - Windows Internet Explorer

G:\Education\al\Learning\Course\Revised Elsevier\Concrete Fundamentals\Concrete Basics\Concrete Basics\player.html

Concrete Basics

NAVIGATION HELP GLOSSARY EXIT

**aci** American Concrete Institute®  
Advancing concrete knowledge

Outline


1. Concrete Basics
2. Introduction to Concrete Basics
3. Objectives
4. What is Concrete?
8. Application of Concrete
9. Properties of Concrete
12. Course Summary
13. Exam
14. End

## Introduction to Concrete Basics

Want to know about concrete? **Concrete Basics** is a perfect starting point for you, whether you are an apprentice, a journeyman, a testing technician, a foreman, a material supplier, or an architect or engineer with no field experience in concrete construction. As a specifier or craftsman, it is important for you to know what concrete is made of and how it behaves.

The key to preparing workable, strong, and durable concrete lies in the careful selection, proportioning and mixing of its component materials.

Unlike other building materials, which are delivered ready to use, most concrete has to be manufactured at or near the jobsite just before it is used, making the work of the concrete craftsman doubly important to the success of the construction project.



Concrete Basics

American Concrete Institute © 2010

SLIDE 2 OF 14 | CLICK RIGHT ARROW TO ADVANCE | 08:01 / 00:01

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# Step 1: Create a Specific Plan

- Generate and write down a plan specific to your purpose and audience
- Your plan will define the QA process, not just “what is” quality



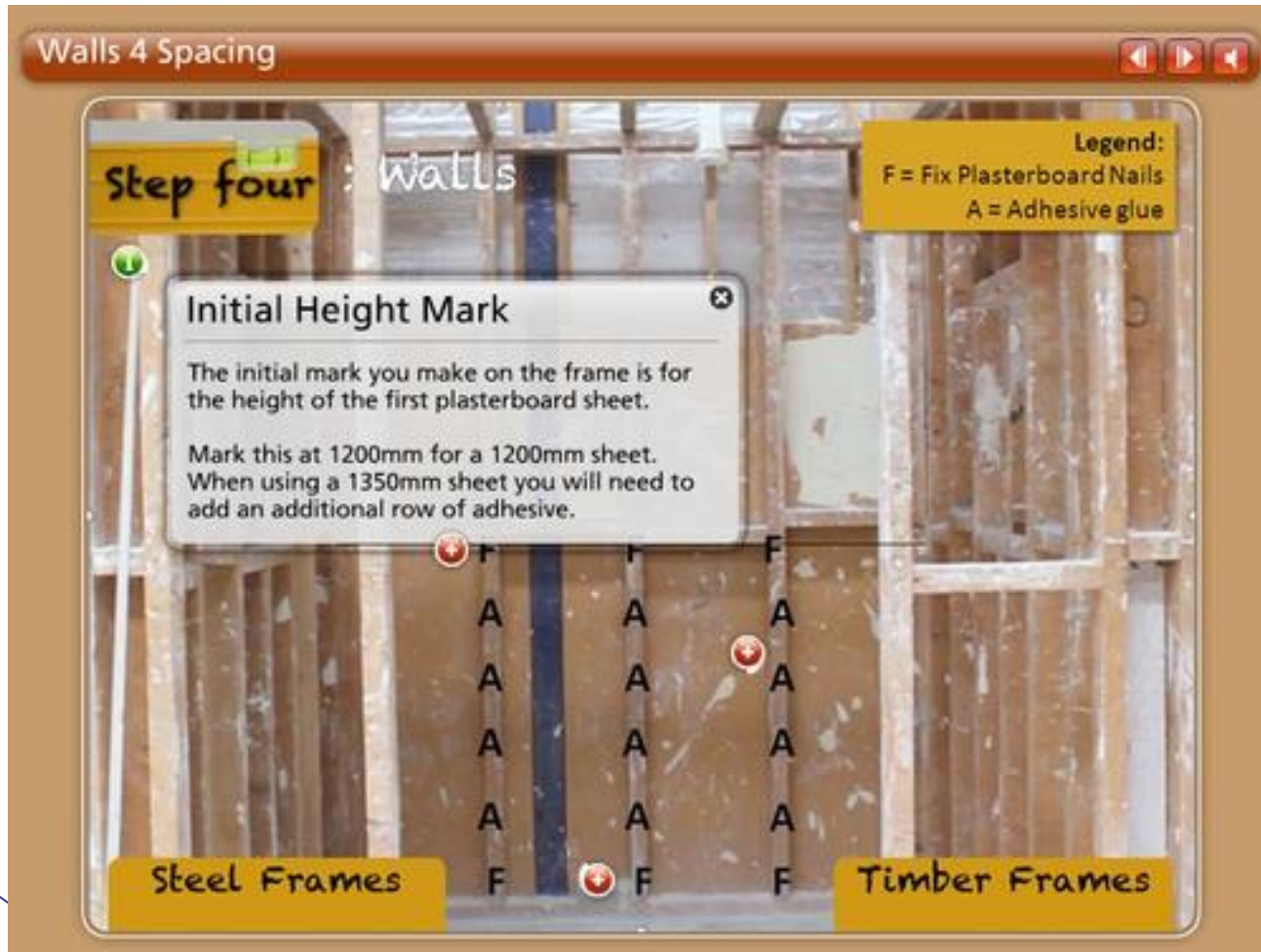
# Step 1: Create a Specific Plan

- Your plan should include:
  - Requirements for instructional quality
  - Clear instructional design process
  - Specific documentation plans

# Step 1: Create a Specific Plan

- Documents to include in your QA plan:
  - Requirements specification
  - Style guide
  - Master design blueprint
  - Review & audit schedule
  - Defect & revision reports
  - Verification & validation reports

# Step 1: Create a Specific Plan



# Step 1: Create a Specific Plan

- Without a specific QA plan, projects can develop “scope creep”, increasing schedules and expenses

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# Step 2: Strong Instructional Design

- Good instructional design is like scaffolding; it provides structure and conformity



# Step 2: Strong Instructional Design

- Good instructional design helps QA by:
  - Matching the training to user needs
  - Creating measurable objectives
  - Matching assessment to objectives
  - Creating appropriate instructional strategies
  - Contributing to a well-designed interface

# Step 2: Strong Instructional Design

**Section 4 – Overview and Objectives**

**MERC** MERCER ENGINEERING RESEARCH CENTER  
An Operating Unit Of Mercer University

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**Overview**  
In Section 4, we look at the Asset Losses Section of the A-R Report. This section provides information about the different categories of losses reflected in the Asset Losses Section of the A-R Report.

**Objectives**  
Upon completion of Section 4, you should be able to:

- Recognize the categories of losses contained in the Asset Losses Section.
- Understand the validation of losses and sources for validating data.
- Identify the source of data for Asset Losses.
- Recognize the different types of losses and what constitutes a valid loss for each type.

Turn Audio On

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# Step 3: Create Specific Criteria

- Content
- Aesthetics & tone
- Media



# Step 3: Create Specific Criteria

The screenshot shows a web browser window with the title 'nj\_howto'. The page header includes the State of New Jersey seal and the text 'STATE OF NEW JERSEY DEPARTMENT OF HEALTH AND SENIOR SERVICES'. A navigation menu on the left lists: Introduction, Importance of Cause of Death, How to Complete, Practice Completing the Death Certificate, Medical Examiner Cases, Emergency Situations, and Additional Resources. The main content area features the title 'Improving Cause of Death Reporting' in large red font, a line drawing of a woman's head and shoulders, and two paragraphs of text. The first paragraph states: 'This flash tutorial will cover all 7 sections found in the navigation menu on the left. Use the navigation menu to proceed to specific sections and chapters.' The second paragraph states: 'The audio portion of the module is optional. You may choose not to use the audio by clicking the speaker icon, and simply working your way through each section and chapters within each section using the navigation buttons.' Below the text is a 'Continue' button with a right-pointing arrow. At the bottom right of the page, it says '0 of 16' and has a speaker icon.



# Step 3: Create Specific Criteria


HOME | INDEX | HELP | EXIT

**COUNCIL**  
www.council.gov.uk


Progress Bar  
●●○○○○○○○○○○

## What is workplace violence?

This module deals with conflict you might experience at work. The Health and Safety Executive give a definition of “workplace violence”:

 Workplace violence happens if you are:

- Abused
- Threatened
- Assaulted



This includes any verbal abuse directed against you personally that makes you feel upset or alarmed. Some examples of abuse are unpleasant behaviour, bad language and shouting.

in circumstances related to your workplace

⏪

# Step 3: Create Specific Criteria

**This video requires Flash Player 9 or higher.**

Please take a quick moment to download the program.



# Step 3: Create Specific Criteria

## Blog

### **A checklist for quality e-learning instructional design**

By Alison Bickford on August 13, 2011

There is a methodology to creating e-learning courseware that is instructionally sound. The correct methodology is absolutely dependent upon the content being delivered. There is a useful article on this topic in July's [T&D Magazine](#).

There is also a 'hygiene factor' to e-learning quality. The value of ensuring quality navigation, visual design, text layout etc is to reduce the cognitive burden of a learner trying to uncover what the course means and what they are expected to do. You want to ensure the learner's thinking effort is focused on the content and not distracted by incongruent design.

You may like to use this checklist next time you are creating an e-learning course:

**1. The interface is visually organised and easy to use.**

Be sure to keep the navigation to the minimum, and use a layout that has some commonality to the interfaces that your audience is use to e.g. exit and resources tab.

**2. The direction the learner is expected to take is clear. Options are available for exploration.**

The navigation of the course should enable the self-directed adult to explore, but the navigation needs to be clear enough for them to return to the body of the course at any point. The more simple the navigation, the more likely the learner will feel confident to explore.

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# Step 4: Reduce Costs & Barriers

- Two major barriers to QA:
  - Cost
  - Organizational structure

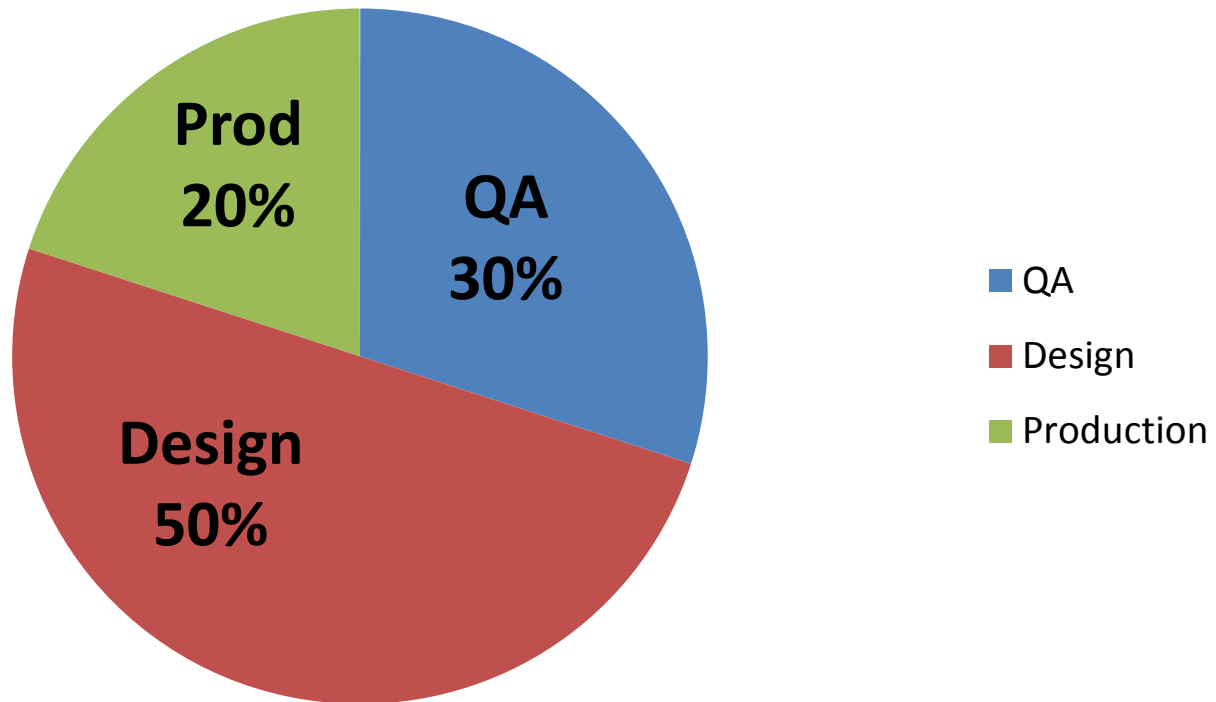
# Step 4: Reduce Costs & Barriers

If the quality assurance tasks cost one amount, but the result of performing that task saves another amount, the real cost is the difference between the two, not the initial cost of the activity.

Schulmeyer & McManus, Handbook of Software Quality Assurance



# Step 4: Reduce Costs & Barriers



# Step 4: Reduce Costs & Barriers

- Use these steps to estimate QA costs:
  - Itemize all QA activities
  - Determine customer requirements
  - Estimate deliverables
  - Determine QA level of effort
  - If QA is less than 30% of total cost, consider recalculating

# Step 4: Reduce Costs & Barriers

- Organizational structure as a barrier:
  - QA should be independent of design & production
  - If QA is within design & production, its authority will erode
  - QA should be a separate role

# Conclusion

1. Create a QA plan
2. Build in sound instructional design
3. Apply specific criteria to measure quality
4. Target costs & eliminate barriers

**Thank you!**  
**Questions or discussion?**

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