



Online Course Standards and checklist



Successful Online Education: Standards and Completion Checklist

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The ADDIE model of Instructional Design:

There are five phases involved with creating training programs, whether the programs are designed to be delivered by an instructor or electronically (web-based or computer-based). These steps are:

- Assess
- Design
- Develop
- Implement
- Evaluate

During the assess phase, you need to develop a clear understanding of the "gaps" between the desired outcomes or behaviors, and the audience's existing knowledge and skills. In the design phase, you document specific learning objectives, assessment instruments, exercises, and content. In the develop phase, you create the learning materials. In the implement phase, the materials are delivered or distributed to the users. During the evaluate phase, you assess the effectiveness of the training materials.

Following the steps of the ADDIE model can help you create an educationally sound course. The Center for LifeLong Learning (CLL) has created a Course Submission Checklist and will use the ADDIE model to review and approve your course.

1. Assess

The first step in course development is a needs analysis. During the analysis stage, you need to:

- Develop your course objectives and motivation statement
- Identify your audience
- Determine the appropriate delivery method for the material
- Identify any technical limitations
- Determine success metrics and reporting requirements
- Allocate budget, if appropriate

1.1. Develop Objectives and Motivation Statement

What are the reasons for developing the course? What specifically needs to be accomplished? Objectives are critical to the success of any educational module. Be as specific as you can in writing these objectives. Objectives are used to keep your content on track, and to cue the student as to what is important about the course. The CLL's **standards require that all courses include objectives**. Courses without objectives will be returned to the developer.

Next, develop a sentence or two that tells the student why the course is important. This statement should answer the "what's in it for me?" question for the user.



Good objectives are specific and action oriented. Consider using words/phrases like:

Objectives:
• Review the progress of the patient safety movement
• Learn about organizational cultures
• Define a “just” culture of safety
• Become familiar with the obstacles to safety
• Identify and fix process failures that can cause errors

- Analyze
- Assess
- Become familiar with
- Communicate
- Connect
- Define
- Describe
- Determine
- Discover
- Distinguish
- Evaluate
- Examine
- Find out about
- Identify
- Know
- Review
- Learn
- List
- Name
- Outline
- Recognize
- Review
- Understand
- Verify

1.2. Identify Your Audience

Who is your course expected to reach? Is your course intended to address employees performing a particular job, or is it intended to reach all people in your group, department or hospital? Defining your audience helps you make decisions regarding the level of content you provide. For instance, a course on general emergency preparedness need not cover how to put on a haz-mat suit if the intended audience will not participate in hazardous materials clean up.

Another consideration in appropriately addressing your audience is reading level. As a general rule of thumb, information intended for all employees should be written at no more than an eighth grade reading level, preferably lower. If the topic necessitates you use medical terms or higher vocabulary words and phrases, consider including a definition of the term within the content, or as a glossary term.

1.3. Determine The Best Delivery Method

The delivery method you choose should be based on a number of things, including the complexity of your content and scheduling constraints for your audience. Online delivery is best used for short material, or material that can be segmented into chunks of 20 minutes or less. Online delivery is also an excellent delivery method for geographically diverse audiences.



Advantages of Instructor-led Courses:

- Student is able to interact directly with a person and has the chance to ask questions
- Instructor is able to immediately assess understanding, has the chance to do knowledge checks on the spot
- This delivery method works best for certain types of training, including soft-skills and hands-on application training

Disadvantages of Instructor-led Courses:

- Time-consuming and costly
- Can be logistically difficult to schedule attendees

Advantages of Computer-based or Web-based Courses:

- Anytime, anywhere accessibility
- Less time consuming and costly
- Good option for policies and process types of training

Disadvantages of Computer-based or Web-based Courses:

- PC literacy of the audience can be a stumbling block
- Technology constraints can include band-width or video and sound capabilities
- Interactivity/engagement is more limited
- Completion rates are dependent upon whether course is mandatory

1.4. Identify Technical Limitations

Technical limitations can include:

- Bandwidth
- Media, sound
- System access
- System training
- Authoring tools available
- Content developer skills

It's important to recognize and plan to address technical limitations in advance of rolling out the course. For instance, if you know that there will be media and sound used on your course, you can create a quick reference guide for your users on how to adjust the volume on the PC.

1.5. Determine Measures of Success

How will you determine whether your course is successful? Will the measures include completion rate, test scores or average time spent? Your benchmarks should be based on the course objectives, and should take into account what the sponsor wants. Work with the CLL to develop a roll-out and assessment plan.

1.6. Allocate Budget

Remember, time and materials equals the true cost of creating the course. To accurately measure the return on investment of the course, you need to account for the time your content experts and developers spend on creating the course.



2. Design

The second step in course development is to design the course. During the design stage, you'll need to:

- Develop Milestones/ Deadlines
- Determine Mastery Requirements
- Develop an Interaction Strategy and Identify Remediation Opportunities
- "Chunk" Content

2.1. Develop Milestones and Deadlines

Creating a realistic project plan will help you keep on track by listing tasks and deadlines. Doing so will help you forecast when the course will be available, as well as help you account for the cost of developing the course. Listing your tasks also helps you make sure that nothing falls through the cracks.

2.2. Determine Mastery Requirements

- For courses that include scored quizzes, it is important to determine what the passing score will be. How many test attempts will you allow the student? How will you address those failures?

Be prepared to share your preference with your CLL representative when you submit the course.

2.3. Develop an Interaction Strategy

Research proves that interactive courses are more effective than courses that are page-turners or those where screen after screen of text is presented. Where ever possible, you should build in interactions such as knowledge check questions that allow the user to review and test their retention of the information. These checkpoints should follow important objectives; consider having a knowledge check point for each objective in the course. These interactions provide reinforcement of the material as well as alerting the student that this might be material covered in the quiz.



POP QUIZ

2. Match the effect to the level of current. Drag the level of current to the effect you think it would have on the body. When you have made your selections, click the SUBMIT MY ANSWERS button.

Level of current	Effect on the body
1 milliamp (ma)	Possible ventricular fibrillation
3 ma	Tingling sensation
10 ma	Paralysis of lungs
30 ma	Painful shock
50 ma	Muscle contraction, danger of not being able to let go

An example of a knowledge check interaction

2.4. Break Content into Meaningful Segments

Your content should follow the objective you developed. From these objectives you should be able to create a logical flow for the actual course content. Create an outline for each objective in advance of beginning to develop the course. **If you find that you are adding material that is not connected to one of your objectives, you need to revise the objective list or omit that material.** Whenever possible, keep each topic to 20 minutes or less.

3. Develop

The third step is to create the course materials. During the develop stage, you'll need to:

- Develop a Storyboard
- Write, Edit and Proof the Script
- Develop the Quizzes
- Review the Course Submission Checklist

3.1. Develop a Storyboard

Using the outline you created during the design phase, you should be able to lay out the course from start to finish in a storyboard. Your storyboard can be an extension of the outline, with information regarding page treatment such as layout and the use of media. The storyboard is a way for you to look at the course overall, to evaluate the effectiveness of the page layout, and to ensure that the course easily flows from topic to topic. Consider using different layout styles for your content pages, and use graphics and other media to help support your point.



It is your responsibility to obtain the necessary permissions to use graphics, media or other reference materials. There are several Internet sites that offer catalogs of clip art and photos, make sure that any image you obtain is royalty free, or that you have paid the appropriate fee for use. You should create a folder to store your course files, including the graphics you want to use. When you publish and submit the course, make sure you include this folder.

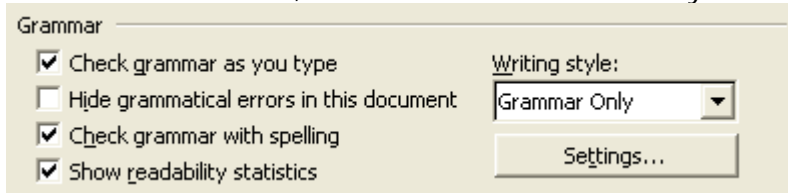
3.2. Write, Edit and Proof the Script

Use a word processing application, such as Microsoft Word to develop the script. The information you compiled during the Assess phase will help you determine the writing style best suited for audience (i.e. formal, conversational, etc.).

Be sure to proof your work for spelling and grammatical errors. Have someone on your team read the script as well. Another set of eyes helps you catch errors such as wrong word usage.

If you create your course script in Microsoft Word, you can utilize the spelling/grammar check and get readability statistics as well. **Check for readability before submitting your course to the CLL.** Follow these steps (Word versions 2003 and below):

- Choose Tools → Options from the menu
- Click on the Spelling & Grammar tab
- In the Grammar area, activate the Show readability statistics checkbox



- Click OK
- Check the spelling for the document. When the spelling and grammar has been checked, a readability statistics window will appear. The Flesch-Kincaid Grade Level number is the approximate reading level by grade.

Counts	
Words	550
Characters	3118
Paragraphs	63
Sentences	25
Averages	
Sentences per Paragraph	5.0
Words per Sentence	15.0
Characters per Word	5.2
Readability	
Passive Sentences	24%
Flesch Reading Ease	37.5
Flesch-Kincaid Grade Level	11.7



Develop the Quizzes

When developing a quiz, make sure you use the objectives as a basis for creating the questions. The most important points of the course should be included in the quiz. The knowledge check points will also help you develop questions. Consider using a variety of question types, such as true/false, multiple choice/single answer and multiple choice/multiple answer. Keep your desired mastery level in mind when determining the number of questions to include in the quiz.

When writing your quiz questions, be sure to give clear directions for answering.

3. When we report medical errors: (check all that apply)

- A** We can learn from our mistakes
- B** We can begin to weed out problem employees
- C** We can find solutions for processes with problems
- D** We can make our work areas safer
- E** We can improve the quality of care we give to our patients

An example of a multiple choice/multiple answer question

3.3. Complete the Course Submission Checklist

Before submitting your course to the CLL, be sure to review and complete the Course Submission Checklist. **Courses that are missing elements or do not follow the guidelines will be returned to the content developer.**

4. Implement

When you are finished with development and have completed the Course Submission Checklist, submit your course to the CLL for review.

- Develop Roll-out Plan
- Test or Pilot the Program
- Go live!

4.1. Develop Roll-out Plan

Your course can be rolled-out in several ways. You can make it publicly available through the BJC Online Learning Center and communicate its availability to your audience separately. This works well for courses that are created for large audiences across BJC. If you choose this



option, be sure to develop instructions for finding and accessing the course within the online learning center. You can also choose to roll out the course through the employee's development plan. The development plan is often used to assign training and education that is required by regulatory agencies. With this option, you can choose to have the course public (searchable within the online learning center's catalog) or private. The private option is often used for courses that are specific to a department or hospital.

If you plan on assigning the course, you need to develop a list of people who are required to take it. This list can be automatically generated using information such as cost center, entity or job title.

Contact your CLL Consultant regarding roll-out options.

4.2. Test or Pilot the Program

Before the course is made available, you will be required to test it to ensure that the content is correctly displaying, the correct answers to knowledge checks and quiz questions are identified, and the course is tracking and scoring correctly within the online learning center.

Contact your CLL Consultant with any changes you identify during the testing phase. Be sure to contact your consultant once testing is complete, in order to move into the roll-out phase.

5. Evaluate

When you are finished with development and have completed the Course Submission Checklist, submit your course to the CLL for review.

- Monitor evaluations
- Begin Reporting
- Modify based on results

5.1. Monitor evaluations

Part of the Assess phase is to make decisions regarding measuring success. Monitoring your course helps to determine the level of success you have achieved, or helps you identify areas that need to be modified. Evaluations drive revisions; these revisions may cross into any phase of the ADDIE model.

5.2. Begin Reporting

Reporting can include the number of employees completing the course, average test score, average amount of time to complete and high-frequency missed questions. Contact your CLL Consultant to discuss your reporting options.

5.3. Modify Based on Results

Based on the evaluations and report results, you may need to modify portions of your course. View the need to modify as continuous improvement rather than failure!



COURSE SUBMISSION CHECKLIST

Description	Complete	Reviewed
Objectives		
Course includes objectives	<input type="checkbox"/>	
Objectives are specific and action oriented	<input type="checkbox"/>	
Content is easy to follow and is well organized		
Course flow follows objectives	<input type="checkbox"/>	
Course does not include content not identified in objectives	<input type="checkbox"/>	
Audience		
Number of employees expected to participate? _____	<input type="checkbox"/>	
Educational level expected from employees (grade) _____	<input type="checkbox"/>	
Proofing		
Spelling and Grammar Checked?	<input type="checkbox"/>	
Readability appropriate to audience?	<input type="checkbox"/>	
Acronyms are spelled out the first time used (acronym in parentheses)	<input type="checkbox"/>	
Readability appropriate to audience?	<input type="checkbox"/>	
Formatting		
No text is underlined unless it is a functioning hyperlink	<input type="checkbox"/>	
Graphics support the content and are relevant to the course	<input type="checkbox"/>	
A page layout is not used for more than 3-4 content pages in a row	<input type="checkbox"/>	
Fonts, font sizes and colors are used appropriately	<input type="checkbox"/>	
Bold and italic formats are used appropriately	<input type="checkbox"/>	
Knowledge Checks		
Questions follow the content and are relevant to the learning objectives	<input type="checkbox"/>	
The answers are correctly identified	<input type="checkbox"/>	
Incorrect and correct rationale is included	<input type="checkbox"/>	
Permissions		
Graphics and diagrams are royalty-free	<input type="checkbox"/>	
Source references are accurate and complete	<input type="checkbox"/>	
Technical		
Links have been tested and open to the appropriate material/page	<input type="checkbox"/>	
Links open in a new window	<input type="checkbox"/>	
Hyperlink appears as instructional text rather than the URL	<input type="checkbox"/>	
Published course files and any media are included in submission	<input type="checkbox"/>	