Using the ADDIE Model as a Framework for e-Learning Maintenance

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A framework for maintaining course relevance

As learning and design (L&D) professionals, we have all experienced the feeling of achievement following the release of a training course we've designed and developed over weeks or months. We smile with a sense of accomplishment and close the project. Now, it's time to move on to the next project, right? Or is it?

If the training course is a one-and-done, sure, move to the next project. However, if the expected shelf life of the training course is months or years, you must establish a review and maintenance cycle. Otherwise, the expected value of the course can fall short. When a training course is first released on a learning management system (LMS) and assigned to end users, we typically record high usage. However, completion numbers steadily drop if the course remains on the LMS for years without content updates, graphic refreshes or version changes. Managing content requires a systematic approach.

This article describes how to use the ADDIE model typically used for the initial course design and development to help ensure that courses remain relevant over time. This is the model ComplianceWire® from UL Solutions follows to ensure that our catalog continues to meet current regulatory requirements and remains relevant for our life science customers.

As a brief refresher, the ADDIE model is a well-known instructional design model to guide users through analysis, design, development, implementation and evaluation. In the 1970s, Florida State University developed this model for the U.S. military. Now, many L&D professionals trust the ADDIE instructional design model for providing efficient, high-quality training courses for corporate e-learning and training. Let's explore how this model can support the maintenance of your training courses.
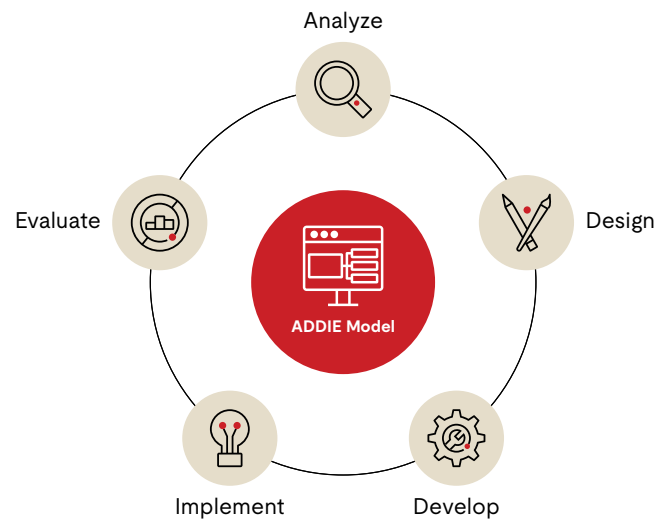
Analyze · Design · Develop · Implement · Evaluate — ADDIE Model

If the expected shelf-life of the **TRAINING COURSE** is months or **years**, *you* ***must*** *establish* a ***review*** *and* ***maintenance*** *cycle.*

Step 1: Analyze

During initial course development, you determine the need for training, define the audience, set the instructional goals and identify the necessary resources. You should reconfirm these items as part of the analysis maintenance cycle. Ask the question, "Does the need for this training still exist for the defined audience?" If the answer is no, retire the training course. However, if the answer is yes, maintain the training course. If available, the original subject matter expert resource for the courses should complete the review to determine whether changes are necessary. The changes should also consider learner feedback; updates to policies, procedures and regulations; and a refresh to examples, case studies and quiz questions.

At UL Solutions, each of our 400 e-learning courses has a subject matter expert (SME) assigned to it. Our industry-leading SMEs — along with U.S. Food and Drug Administration (FDA) SMEs — complete either an annual or biannual review. During the analysis maintenance step, the SMEs reaffirm the instructional goals, the course's importance to industry, and the defined audience from an industry perspective, and by our Content Solutions department from a usage standpoint. Additionally, we review the course content against the current regulations to ensure more accurate and timely content.

Our SMEs edit course scripts, when necessary, to **REFLECT REGULATORY UPDATES** *that impact the* **COURSE CONTENT.** *They refresh* dates, **case studies** and **examples.**

Step 2: Design

The next step in the ADDIE model is design. In this step, the L&D professional builds the course framework or structure by defining the specific learning objectives, writing the content to support the objectives, creating a layout for the user interface and navigations, and possibly identifying specific images. They document all of this in the course script or storyboard.

During the design maintenance cycle, the L&D professional updates the course script or storyboard to reflect the identified changes from the analysis maintenance step. Ask the following questions to ensure that you consider all course aspects.

- Do the learning objectives need adjusting?
- Have relevant policies, procedures or regulations changed that might affect the course content?
- What new engagement strategies can you incorporate into the course content?
- Can you include a more current case study?
- Can you identify and include new images or graphics?
- What learner feedback should you incorporate?
- What quiz questions do you need to revise due to content changes?
- Can you change the theme to keep the course aesthetically fresh in appearance?

Document these changes in a tracked changes version of the course storyboard or script so they are accurately incorporated into the training course and to maintain the course's design history.

At UL Solutions, our SMEs edit course scripts, when necessary, to reflect regulatory updates that impact the course content. They refresh dates, case studies and examples. After the SMEs finish, our instructional designers incorporate the SMEs' edits into the instructional flow of the course content, interactive elements, learning activities and embedded assessments. As the instructional designers work with the content, they do so with a focus on ensuring that the course objectives either remain intact or are updated as necessary to reflect changes in the content. Once the SMEs finalize the script content, they provide it to the course developers.

Step 3: Develop

In the development step, the course developers construct the training course. They incorporate media elements, text content and established learning strategies from the design step. Stakeholders and SMEs review and confirm the accuracy and completeness of the resulting training course.

In the development maintenance cycle, course developers follow the updated course script or storyboard to efficiently and accurately incorporate the changes into the training course. Additionally, the changes cascade to any translated versions of the course. Once the changes are complete, stakeholders and SMEs verify the accuracy of the incorporated updates. Finally, they must make versioning decisions. Ask the question, "Do the changes necessitate a major, minor or revision change to the current version of the training?"

At UL Solutions, depending upon the nature of the changes, a version change may occur.

- **Major version –** Changes to the regulation on which the course content is based
- **Minor version –** Changes to text content or quiz questions for clarification purposes and/or to incorporate more current examples or case studies
- **Revision –** Changes to images or course theme or to correct typos

Once they've incorporated the changes into the training course, the SMEs and the Quality Assurance department verify the course changes prior to a new release.

Step 4: Implement

In this step, the training course is assigned to the defined audience, typically via an LMS. This is a critical step, as the audience will not be able to complete the training unless they are assigned or their awareness is raised that the training course is available to them. Some of the most well-designed and -developed training courses fall short because they are not implemented with the level of awareness that drives success across the audience base.

In the implementation maintenance cycle, ask the question, "When does the audience need to be made aware of the updated training content?" If the changes have an immediate impact on their job or are regulatory in nature, you should implement the updated course as soon as possible. Likewise, if the changes are not mission-critical, the audience can complete the training at the next training cycle.

At UL Solutions, how we version the course determines when we place it on the audience's To-Do List in the LMS. If the course is versioned as major, we strongly advise immediate retraining due to a change in regulatory information. If the course is versioned as minor or a revision, the audience can complete the training at the next annual training cycle.

Some of the most **well-designed** *and* **-developed** TRAINING COURSES *fall short because they* are **not** implemented with the **level** of **awareness** that *drives success.*

Step 5: Evaluate

The final step in the ADDIE model is evaluation. You assess the audience's satisfaction with the training course along with the knowledge and skills they gain and their ability to transfer that knowledge to their work environment.

In the evaluation maintenance cycle, ask the question, "Is the training course having the desired effect?" Following the ADDIE model for the course maintenance process, the resulting training course should achieve the desired outcome. However, if it doesn't, you must determine why it fell short. Review the ADDIE steps and make corrections.

At UL Solutions, we evaluate based on two key metrics for our training courses:

- Individual course completions
- The number of companies taking a training course reviewed both annually and over three years

We can infer that courses with high usage year-over-year by an increasing number of companies are achieving their desired effect in our customers' organizations.

Conclusion

If you expect a training course to last for several years, it is critical that you establish a maintenance cycle. You can apply the same ADDIE model used for the initial design and development as a framework for the maintenance updates. When you consider each of the steps in the ADDIE model, your training course can remain relevant and support your audience for many years.

Learn More at <u>UL.com/compliancewire</u>.

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