# Why ADDIE? What's in it for me anyway?

NEXT



As you already know, great MRO documentation rarely comes without good planning. And as you'll soon see, the ADDIE instructional design model guides your teaching process just as a blueprint guides the home building process. Using the ADDIE tools we'll share in this course, you'll be equipped to create an effective foundation for teaching the PDF markup standard work to your engineering colleagues.

During our time together, we'll focus on the ANALYZE phase of the ADDIE process. Check out these benefits you can expect from our exploration. Can you think of more benefits resulting from careful planning?

- Accurate, timely updates to CMMs & SBs
- Satisfied airline customers
- Reduced audit risk
- Engaged and empowered engineering colleagues
- Increased time available for urgent engineering tasks

Click the **NEXT** button at the screen top to learn more about ADDIE.

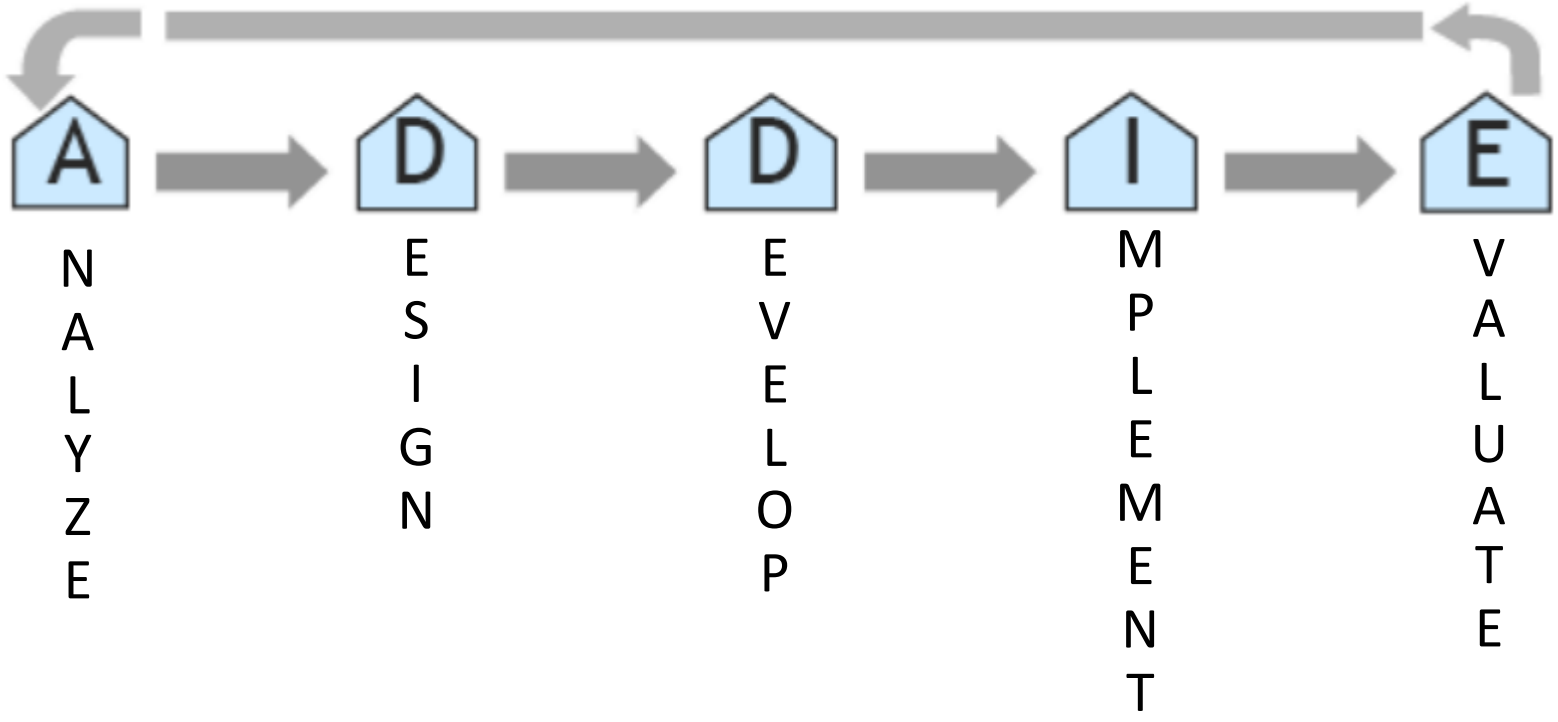
Use the controls at the screen bottom to REWIND or to MUTE sound-effects.

# The ADDIE cycle



The ADDIE instructional design process, shown here, is an iterative cycle. Formative feedback may be gathered and used during any phase to progressively improve the learning module until the desired results have been achieved.

The ADDIE cycle has many similarities to an engineering project cycle.



# Elements of the ANALYZE phase.



Now let's take a deeper dive into the ANALYZE phase of ADDIE. Here are its key elements.

ANALYZE phase:

- Define overarching project goals
- Identify stakeholders
- Conduct user research
- Conduct contextual research
- Identify primary and secondary learning objectives
- Create project proposal

These ANALYZE elements are foundational.

Since defining project goals, identifying stakeholders and creating a project proposal are familiar to you already, we won't cover them in detail today.

Let’s see how you’re doing so far.

Arrange these instructional-design process steps in the correct order, then click SUBMIT on the screen bottom.

1. Evaluate
2. Develop
3. Analyze
4. Design
5. Implement

Sorry, that is incorrect. Try to remember the acronym “ADDIE,” which stands for ANALYZE, DESIGN, DEVELOP, IMPLEMENT, EVALUATE. Click anywhere to continue.

SUBMIT

## Knowledge check 2 of 7

BACK



Here's one more question before we move on.

Select TWO items that are **NOT** elements of the ANALYZE phase.

A. Conduct contextual research
B. Create storyboard
C. Create project proposal
D. Define overarching project goals
E. Conduct user research
F. Identify stakeholders
G. Identify primary and secondary learning objectives
H. Select media

Sorry, that is incorrect. The ANALYZE phase is a macroplanning stage. Storyboard creation and media selection are based upon the proposal developed during the ANALYZE phase, but are done during the DESIGN phase. Click anywhere to continue.

SUBMIT

# Eight elements of user research



User research is a critical part of the ANALYZE phase. Click on each topic on the left to see why.

| | |
|---|---|
| Entry behaviors | Engage learners early by showing them the “What’s in it for me.” Strive for ATTENTION, RELEVANCE, CONFIDENCE and SATISFACTION (ARCS). |
| Prior knowledge | Maintain learner engagement by teaching only what learners need to know. |
| Attitude toward content and system | Manage learner expectations throughout. |
| Motivation | Engage learners early by showing them the “What’s in it for me.” Strive for ATTENTION, RELEVANCE, CONFIDENCE and SATISFACTION (ARCS). |
| Education and ability | Maximize success by presenting material at the learner’s level. |
| Learning preferences | Maximize information retention by using the most effective channels for your learners. |
| Attitude toward the sponsoring organization | Establish credibility through voice and tone. |
| Group characteristics | Consider diversity of learning audience when tailoring content. |

# Three elements of contextual research

BACK NEXT



Contextual research is also a critical part of the ANALYZE phase. Click on each topic on the left to see why.

| | |
|---|---|
| Site compatibility | Determine whether the learning site has the tools required to deliver your content as planned. |
| Site adaptability for simulations | Determine whether the learning site infrastructure can handle workplace simulations. |
| Site adaptability for teaching method | Determine whether your instructional approach, including its medium, conflicts with any organizational mandates. |

Remember to proactively adapt material and delivery methods to your users' needs.

# Gathering user and contextual data



You may be wondering how to gather user and contextual data. Here are some typical methods.

- Anonymous surveys
- Interviews
- Personal observation

Can you think of ways to collect data from your engineering colleagues?

# Knowledge check 3 of 7

BACK



Let's pause to see what you've learned.

User analysis is important because it allows you to: (select all the correct answers.)

A. Evaluate the learners' site for feasibility of workplace simulations.
B. Teach through the learners' preferred communication channels.
C. Omit content that the learners already know.
D. Engage learners by showing them "What's in it for me?"
E. Appear credible to the learners.
F. Ensure that learners' site has the proper tools in place.

Sorry, that is incorrect. Contextual research focuses on the learners' environment, while user research focuses on the person. Answers A and F are part of contextual research. Click anywhere to continue.

SUBMIT

# Reflections



Now that you've seen the ADDIE instructional design model and learned the value of user and contextual research, let's take a moment to imagine your module's characteristics.

First, try to draw a mental picture of your learning module design. Remember to apply what you already know about your audience of engineers and their working context.

What learning and communication channels will you use?

Does the learning environment infrastructure support these channels?

What other factors should you consider?

http://712educators.about.com/od/Classroom-Management/tp/4-Principles-of-Classroom-Management-and-Social-Emotional-Learning.htm

# Writing learning objectives



Meaningful, effective objectives are key components of the ANALYZE phase. However, writing objectives can be hard. Luckily, William Horton's formula helps simplify the process.

Horton's formula: "Teach (A) to (B) who (C)."

"A" describes the intent. This is what we want our learners to create, decide, do, know, believe or feel."

"B" describes our learners.

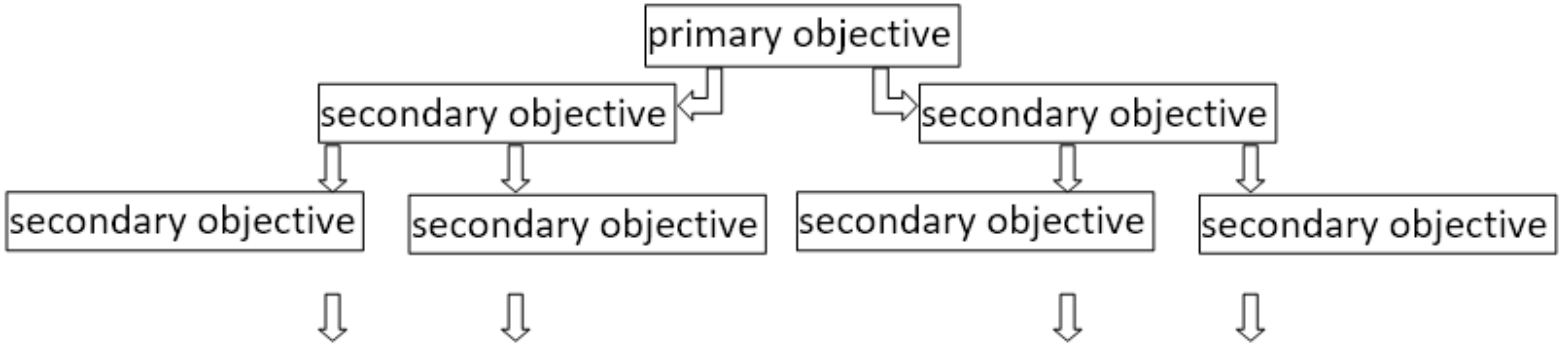
"C" describes prerequisites, including our learners' skills, knowledge and attitudes.

Example: "Teach how to write learning objectives to service center manufacturing engineers who have no previous knowledge of Horton's formula."

# The hierarchy of learning objectives



Once you've written your top-level objective, identify the prerequisites and write secondary objectives to feed them. Keep digging until you either run out of ideas or until you hit a point where training already exists. Remember to avoid teaching what learners already know or can easily access in an existing medium such as the Internet.




Keep drilling down until your instructional design objectives have been met.

Remember Horton's formula: "Teach (A) to (B) who (C)."

Example: "Teach how to write learning objectives to service center manufacturing engineers who have no previous knowledge of Horton's formula."

# Best practices



You've learned a lot about the ANALYZE phase of ADDIE and how it serves as the foundation for instructional design. Along with this new knowledge, there are a few best practices to keep in mind along the way.

1. Write test questions first. This focuses your content.

2. Avoid teaching the minutia unless necessary. Recognize what learners already know or simply do not need to know

3. Think Essentialism. Less is more. Ruthlessly cut every scrap that doesn't support your overarching objective.

These best practices keep your learners from feeling overwhelmed and keeps them engaged.

# Feedback as a gift



After working hard on a project, receiving critical feedback can be tough. But if we remember that such feedback is the key to continuous improvement, feedback becomes a gift. Try to accept feedback graciously, and use formative feedback to adjust your plan.

https://www.flickr.com/photos/adamgrabek/6424461231/

Two things to remember:

ADDIE is an iterative process.

Your plan is not written in stone. Keep an open mind. You'll be glad you did.

Can you think of a time when critical feedback helped you improve your plan?

Now that we've presented all the lessons, click NEXT to take four final knowledge checks!

# Knowledge check 4 of 7

BACK



Let's see what you remember about learning objectives. Click on the correct answer below.

When using Horton's formula to write primary and secondary objectives, when should you stop?

A. Stop after three levels of objectives.

B. Stop when you recognize that training already exists for the remaining objectives.

C. Stop after 30 minutes of brainstorming.

Sorry, that is incorrect. You should keep drilling down until you find that the prerequisite training already exists—perhaps on the Internet. Click anywhere to continue.

SUBMIT

# Knowledge check 5 of 7

BACK



Click on the correct answer below.

What answer best represents Essentialism?

A. Keep as much content as possible. It's better to teach everything, rather that overlook something.

B. Expect the learner to be an expert after completing his or her training.

C. Cut any and all material that does not support your objectives.

Sorry, that is incorrect. It may seem counterintuitive, but it's best to cut every scrap of material that does not support your overarching learning objective. Teach only what holds value to your learners. Click anywhere to continue.

SUBMIT

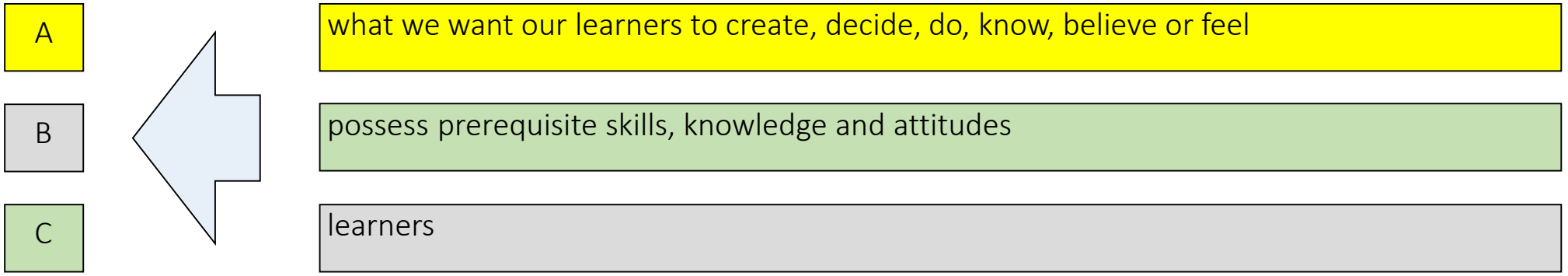
# Knowledge check 6 of 7

BACK



Here is Horton's basic formula for writing objectives. Match these phrases to their position in the sentence by dragging each phrase into A, B or C.

"Teach (A) to (B) who (C)."




Sorry, that is incorrect. Horton's formula says "Teach WHAT (desired outcome) to WHO (learners) that WHAT (have prerequisites)." If this definition seems unclear, don't worry, we'll provide a printable quick reference job-aid at the end of this module. Click anywhere to continue.

SUBMIT

# Knowledge check 7 of 7

BACK



Why is it a best practice to write test questions early in the ADDIE process?

A. Because test questions focus your contextual analysis.

B. Because test questions focus your user analysis.

C. Because test questions focus your instructional content.

Sorry, that is incorrect. Test questions focus your instructional content. When you think Test Questions, think Essentialism. Click anywhere to continue.

SUBMIT

# You made it!

REPEAT MODULE | Exit



Congratulations, you're about to complete this training module. Before you leave, check out the printable job-aid (hyperlink) designed to help you remember and apply what you learned today.

Use the controls at the top to retake this module or exit.