

Instructional designer profession and ADDIE

Tutorial Goals:

- Provide a foundational overview of the instructional designer profession
- Describe a framework that informs the work of instructional designers

Syracuse University
Instructional Design, Development and Evaluation

2019

Welcome to the 'Instructional designer profession and ADDIE' tutorial.

This tutorial is designed to help you develop a basic understanding of the Instructional Designer profession and a key framework that informs the work of instructional designers.

Tutorial goals are to

- Provide a foundational overview of the instructional designer profession
- Describe a framework that informs the work of instructional designers

Profession

Instructional designers help identify and resolve human performance problems

- Analyze performance gaps between what “is” *current performance* and what performance “should be”
- Help narrow or close gaps

Syracuse University Instructional Design, Development and Evaluation 2

Profession

Instructional designers (IDs) are professionals who work to identify and hopefully resolve human performance problems. This work engages IDs in exploring situations where performance indicators are unsatisfactory or less than expected, for any variety of reasons. The ID’s role is to analyze the **gap between the actual and desired performance** to determine **why the gap exists**. If the performance gap is due to **knowledge, skills, or attitudes**, then a potential solution is instruction. The IDs’ role is then to design and develop instruction that narrows or closes human performance gaps.

If the gap is a problem in the **working environment**, like lack of tools, poor conditions or other environmental factor or

... **disincentives** to perform at expected levels, like poor pay, peer pressure not to excel, or other disincentive or ...

... **organizational policies**, like human resources related matters, poor communication or other policy issue, then ...

... non-instructional solution may be recommended, like information, new equipment, or policy modifications. Since the ID has a good knowledge of the situation, he or she may continue to consult with other more suited to resolve such issues.

In the end, the instructional designer profession is most prepared to help resolve performance gaps that are related to lack of knowledge, skills, and attitudes ... those human characteristics that are learned.

Creating instruction

Instruction helps performers undergo learning transformation

- Instruction is “the **intentional** arrangement of experiences, leading to learners acquiring particular capabilities”
(Smith & Ragan, 2005, p. 5)
- Experiences include **engagement** in resources and activities...
- The **purpose** of instruction is to facilitate learning
- Well-designed instruction is **purposeful** -- effective, efficient, engaging, usable, and accessible

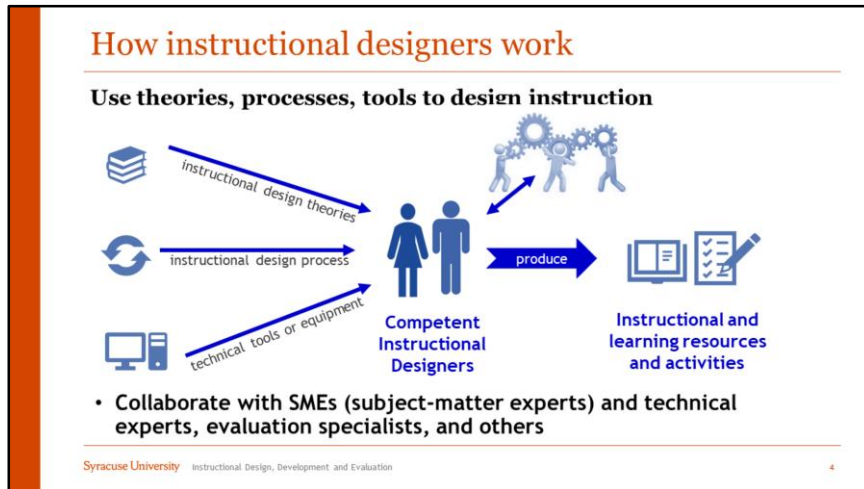
During...	In contexts such as...	
courses	education	STEM
training	healthcare	sports
webinars	manufacturing	media
lectures	business	aviation
master classes	industry	R&D
Informal sessions	government	military
	NGO	others

Creating instruction

Instructional designers analyze performance problems to identify those associated with knowledge, skill, or attitude gaps. Then, create instruction that helps performers go through a learning transformation to narrow or close gaps in knowledge, skills, and attitudes.

To be clear... Instruction is “the intentional arrangement of experiences, leading to learners acquiring particular capabilities” (Smith & Ragan, 2005, p. 5). Such experiences include interactions and engagement with instructional resources and activities that may be used in formal courses, training, webinars, lectures, master classes, or informal learning environments. Formal and informal instruction may be in a wide variety of contexts like: education, STEM, healthcare, sports, manufacturing, media, business, aviation, industry, Research and Development, government, military, NGOs, or any other context where there is human performance.

Instruction is purposeful, not accidental—its purpose is to facilitate learning toward specified learning objectives. The best design instruction is effective, efficient, engaging, usable, and accessible.



How Instructional Designers work

Using theories, processes, and tools to design instruction... To create well-designed instruction, competent instructional designers use ...

... **instructional design theories** and research-based principles of instruction and learning to inform their design thinking...

... **instructional design processes** to inform their strategic work processes and activities

... **technical tools or equipment** that best support learning and delivery of instruction.

Instructional designers may not necessarily be the subject-matter expert, or technical expert for the instruction they are creating, thus they often collaborate with a variety of specialists to design, create, implement, and evaluate the best instructional solution. An ID generally is a specialist in learning and instructional sciences and in how to apply these sciences into the creation of instruction. Content is usually the domain of subject-matter experts (SMEs). Thus, IDs often collaborate with SMEs and other specialists in evaluation, technology, teaching. However, IDs may have the subject matter expertise and technical expertise to complete all design and development steps, depending on their training and expertise.

ADDIE Framework

ADDIE is a generic problem-solving process that is at the root of Instructional Design and all of its models for approaching human performance problem solutions

- systematic
- systemic
- reflective
- iterative

Syracuse University Instructional Design, Development and Evaluation 5

ADDIE Framework

ADDIE is a generic problem-solving process that is at the root of Instructional Design and all of its models for approaching human performance problem solutions

Instructional design is problem-solving at its core. It involves a systematic, systemic, reflective, and iterative process that includes ...

... Analyzing an observed performance problem....

... Designing an instructional solution to the problems...

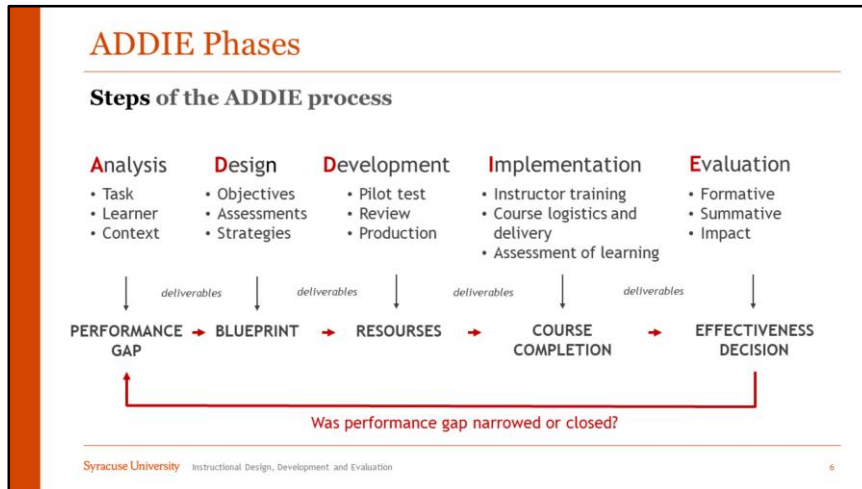
... Developing the solution...

... And implementing and evaluating the solution to see if it closed the gap.

This Instructional Design framework is called ADDIE.... Analyze, Design, Develop, Implement, and Evaluate.

Although **ADDIE** is often shown and **described in a linear format**, the **process is flexible** and instructional design can begin in any of the phases, combine phases, increase or reduce the formality of each phase, or use any combination of phases depending on the problem being investigated.

However, like all problem solving, it is important for the ID to analyze and understand the performance problem, design an appropriate solution using the tools of the trade, create a solution that is predicted to close the gap, and implement and evaluate the solution to see how well the instruction worked in closing the performance gap.



ADDIE phases

Each phase in the ADDIE process has a purpose.

During **Analysis**, instructional designers analyze the job tasks, stakeholders and performers, and environment where a performance problem was observed. At the end of Analysis the ID decides whether there is indeed a gap in human performance that can be resolved with instruction.

During **Design**, instructional goals and learning outcomes are developed and then aligned with learning assessments, instructional strategies, and media in a blueprint of the future instruction. Blueprints are also developed for the implementation and evaluation phases

During **Development**, the activities and resources are developed and pilot tested to ensure they will work. Logistics and materials for implementation and evaluation are also developed.

During **Implementation**, instruction goes live. This may include instruction to prepare instructors, notifications to target audience, and employment of evaluation data collection instruments.

During **Evaluation**, collected data are analyzed to demonstrate value of instruction and determine if the gaps is closing, if modifications are required, if the instruction should continue to be used, or other strategic decisions.

Overall, **ADDIE** is about identifying and **resolving human performance problems**.

ADDIE Origin

ADDIE process is generic and useful. The origin is unclear

Framework

A > D > D > I > E

Backwards design **Rapid Prototyping**

A < D < D < I < E **ADDE > IE**

4c (Connected: learning tasks, supportive Information, Just in time info, practice)

A > DDI > E

Syracuse University Instructional Design, Development and Evaluation

7

Origin of ADDIE

ADDIE is a generic problem solving process providing a systematic, systemic, reflective, and iterative framework for practicing instructional design.

There are many other proposed instructional design processes and models, such as backwards design, rapid prototyping, 4-Cs (connected component) model, or Dick & Carey’s systematic instructional design model. However by analyzing and reverse engineering each, it is generally found that most models contain some level of analysis, design, development, implementation, and evaluation.

Despite being generic, ADDIE is popular because it is useful in any almost any context or area of work and is rather easy to understand – the hallmarks of a good model.

Onwards

Find the gap, mind the map, close the gap

- ID profession focused on **investigating** and **resolving human performance gaps**
- Instructional designers - **competent** in...
 - ID and learning models and theories
 - ID and development processes
 - Technologies and tools
- Instructional designers - **practices** systematic, systemic, reflective, and iterative
- **ADDIE framework** - analysis, design, development, implementation, and evaluation

Syracuse University Instructional Design, Development and Evaluation

8

Onwards.. Find the gap, mind the map, close the gap...

Instructional designers **analyze gaps** in human performance, **create instructional solutions** to close the gaps, and determine that gaps are narrowed or closed.

The instructional Design profession is focused on **investigating and resolving** human performance gaps

Instructional designers develop **competencies** in **instructional design and learning** models and theories, instructional design and development **processes**, and instructional **technologies and tools**

Instructional designers **practices** using systematic, systemic, reflective, and iterative processes that generally flow from an ADDIE framework

ADDIE includes analysis, design, development, implementation, and evaluation to analyze a performance gap, create instruction that will help resolve identified gaps, and determine how well the instruction did indeed work

Keep these points in mind as you move forward in your coursework.



References

Designed and Developed by
Tiffany A. Kozzalka, PhD; MaryAnn Haverstock, Yuri Pavlov

All pictures in this presentation were either created for this tutorial or are licensed under Creative Commons (CCo) licenses and used for education purposes.

Syracuse University Instructional Design, Development and Evaluation 9

Designed and Narrated by Tiffany A. Kozzalka

Developed by MaryAnn Haverstock and Yuri Pavlov

All pictures are licensed under Creative Commons (CCo) licenses and used for educational purposes.

References:

Branson, R. K., Rayner, G. T., Cox, J. L., Furman, J. P., King, F. J., & Hannum, W. H. (1975). *Interservice procedures for instructional systems development: Executive summary, Phase I, Phase II, Phase III, Phase IV, and Phase V.* Tallahassee, FL. Retrieved from <http://www.dtic.mil/dtic/tr/fulltext/u2/a019486.pdf>

Molenda, M. (2003). In search of the elusive ADDIE model. *Performance Improvement, 42*(5), 34–36. doi:10.1002/pfi.4930420508

Smith, P. L., & Ragan, T. J. (2005). *Instructional design* (3rd ed.). Hoboken, NJ: John Wiley & Sons.