



# Rapid Prototyping Approach to Instructional Design

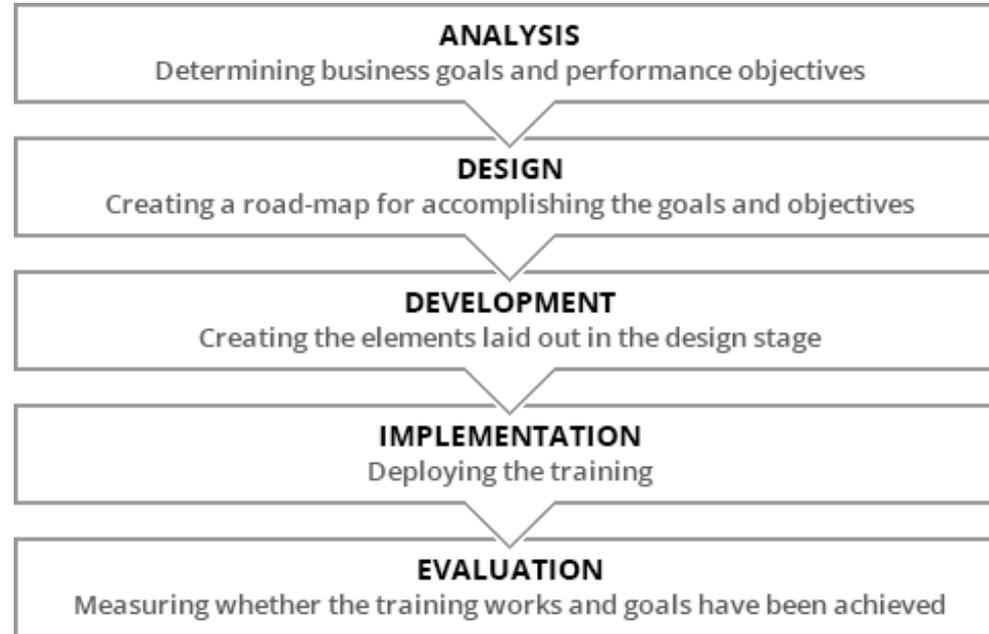
Stanhope 2015

Jon Clark  
Curriculum Designer, Edmonton Police Service

# Did ADDIE Die?



*Days of Our Lives*  
Circa 1975



- “ADDIE has become a useful heuristic, not even a process really, but a framework for thinking, coaching instructional designers, and managing learning and e-learning projects.”  
- Tom Gram (2009)

# What is a prototype?

## pro·to·type

*/ˈprōdəˌtīp/*

*noun*

1. a first, typical or preliminary model of something, especially a machine, from which other forms are developed or copied.

"the firm is testing a prototype of the weapon"

*verb*

1. make a prototype of (a product).

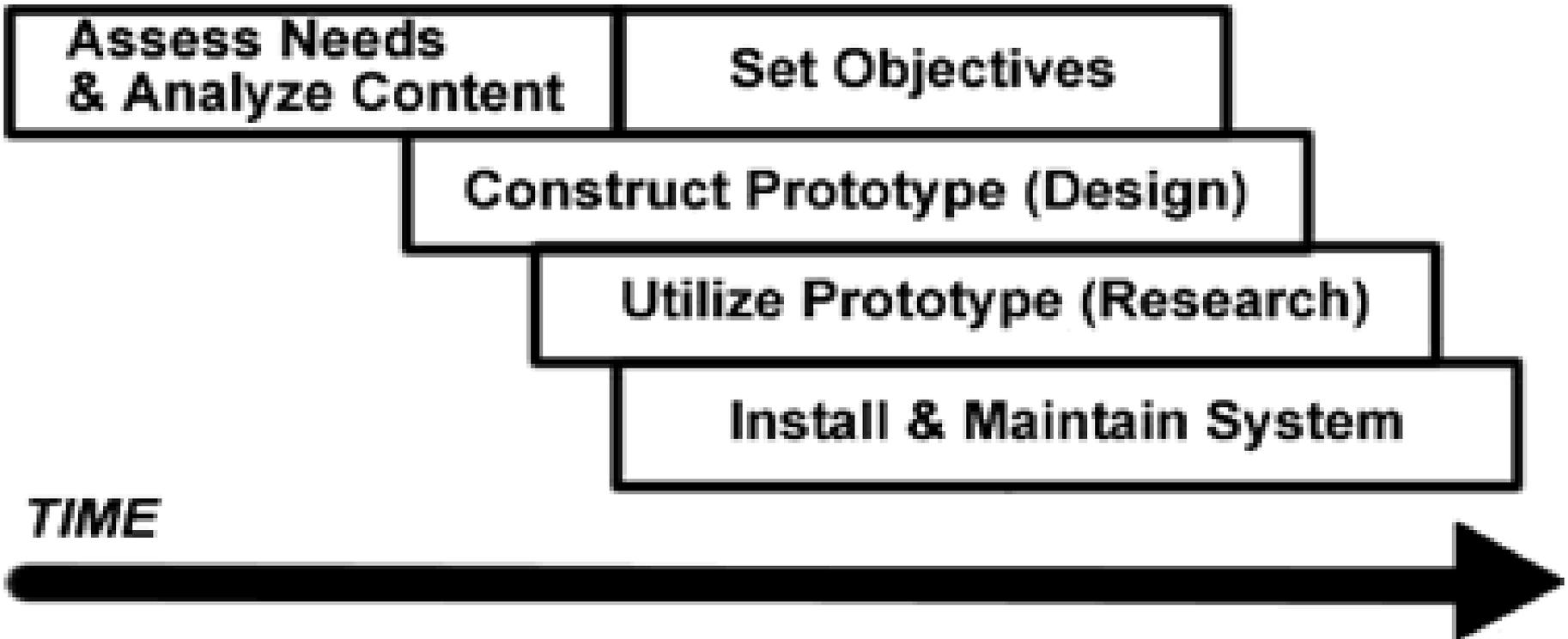


Translations, word origin, and more definitions

- ➔ In instructional design terms... “a sample working model that is a scaled-down representative version of the whole course”

[www.shiftelearning.com](http://www.shiftelearning.com)

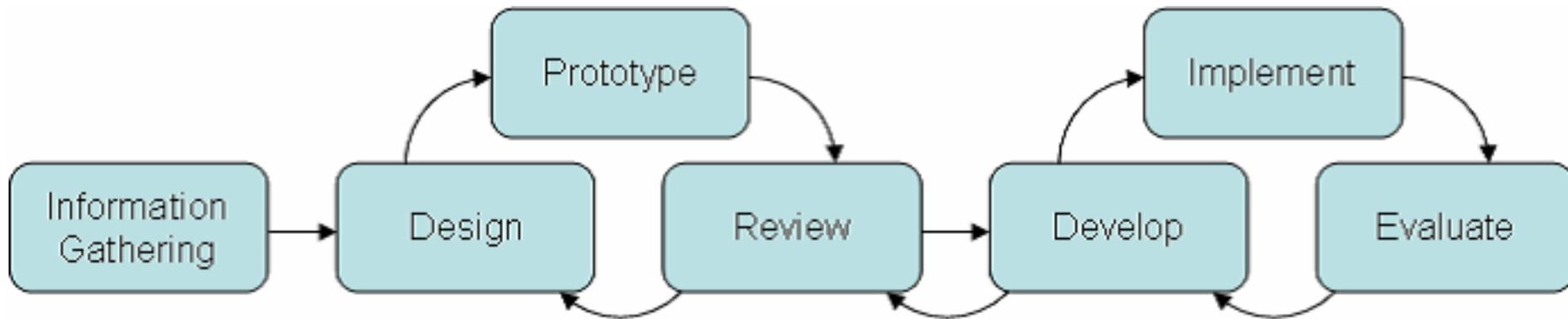
# Rapid Prototyping Model



Tripp and Bichelmeyer's rapid prototype model.

From "Rapid Prototyping: An Alternative Instructional Design Strategy," by S. Tripp and B. Bichelmeyer, 1990, *Educational Technology Research and Development*, 38, p. 31.

# Rapid Prototyping (RP)



[www.wikieducator.org](http://www.wikieducator.org)

“The idea of rapid prototyping as it applies to instructional design, is to develop learning experiences in a continual design-evaluation cycle that continues throughout the life of the project. This cycle, known as the spiral cycle or layered approach, is considered to be iterative, meaning that products are continually improved as the cycle continues”

[www.instructionaldesign.org](http://www.instructionaldesign.org)

# When could you use RP?



- Cases that involve factors so complex that the successful prediction of outcomes is problematic
- Cases in which conventional methods of instructional design have produced unsatisfactory results
- Cases for which experience with the instructional problem is lacking on the design team

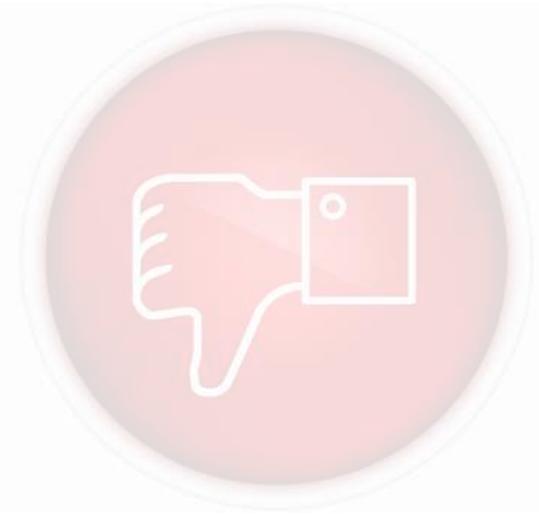
# Advantages

- Encourages and requires active student participation in the design process.
- Iteration and change are natural consequences of instructional systems development. Clients tend to change their minds.
- Clients don't know their requirements until they see them implemented.
- Prototyping can increase creativity through quicker user feedback.
- Prototyping accelerates the development cycle.



# Disadvantages

- Can lead to a design-by-repair philosophy that may ignore initial analysis and planning.
- Does not eliminate the need for front-end analysis. It cannot help if the situation is not responsive to instructional design.
- May lead to premature commitment to a design if it is not remembered that a design is only a hypothesis.
- ‘Creeping featurism’ (the adding of bells and whistles) may lead to designs that get out of control.
- Can decrease creativity by eliminating the urge to find better designs.



# RP techniques by ADDIE phase

## ➤ Analyze

- Interview top 10 people for an organizational assessment
- Perform a quick approach to a performance gap by: identifying the problem and causes; analyzing job tasks, conditions and current performance levels; identifying performance outcomes and training expectations
- Forego time-intensive interviews and focus groups
- Use electronic bulletins instead of live meetings to collect data
- Interview two at a time or use web-based surveys to gather information
- Spend a day observing a SME at work and ask questions for task analysis
- Videotape experts doing their jobs and analyze it for the component points

# RP techniques cont'd

## ➤ Design

- Keep formal reporting to a minimum - jot down what you need to know
- Create a series of tests at various levels and distribute them to the trainees along with the objectives they are based on
- Use logical sequencing of steps

## ➤ Development

- Use existing policies, procedures, annual reports, magazine articles, pamphlets, etc. for training material
- Use games that let you alternate the content for instructional use or use templates
- Strip training of "nice to know" to "must know"
- Short cut video production by taping short video clips of SMEs doing their work and describing the process or tape a SME as he/she does the training process

# RP techniques cont'd

## ➤ Implementation

- Have reviewers or validators of the design meet as a group
- Allow the trainers to train other trainers

## ➤ Evaluation

- Evaluate only what you need to evaluate
- Use performance checklists as a transfer evaluation to re-check performance



# Idea Exchange

- How does your organization typically approach instructional design?
- How might prototyping help you achieve your vision of the art of the possible?

WHAT  
DO  
YOU  
THiNK?



# References

<http://edci672.wikispaces.com/Rapid+Prototyping+Model?responseToken=0b7f124e6ea4446a99f54831a39d15785>

[http://edutechwiki.unige.ch/en/Rapid\\_prototyping](http://edutechwiki.unige.ch/en/Rapid_prototyping)

<http://info.shiftelearning.com/blog/rapid-prototyping-for-elearning>

[http://uwf.edu/ddawson/d3net/research/rapid\\_prototype.htm](http://uwf.edu/ddawson/d3net/research/rapid_prototype.htm)

[http://wikieducator.org/VirtualMV/Digital\\_Learning\\_Technologies/Pedagogies/Instructional\\_Design\\_Models](http://wikieducator.org/VirtualMV/Digital_Learning_Technologies/Pedagogies/Instructional_Design_Models)

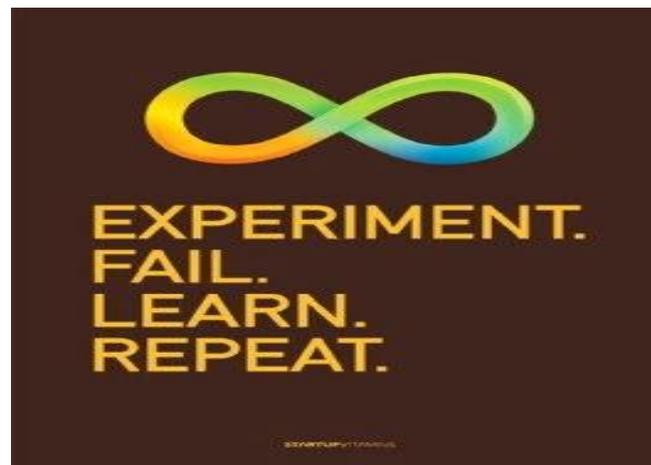
<http://www.dashe.com/blog/elearning/instructional-design-prototyping-addie/>

[http://www.guyboulet.net/site/docs/Rapid\\_prototyping.pdf](http://www.guyboulet.net/site/docs/Rapid_prototyping.pdf)

[http://www.instructionaldesign.org/models/rapid\\_prototyping.html](http://www.instructionaldesign.org/models/rapid_prototyping.html)

[https://en.wikibooks.org/wiki/Instructional\\_Technology/Instructional\\_Design/Rapid\\_Prototyping](https://en.wikibooks.org/wiki/Instructional_Technology/Instructional_Design/Rapid_Prototyping)

<https://onlinelearninginsights.wordpress.com/2013/05/28/start-here-instructional-design-models-for-online-courses/>



[www.livesinprogress.net](http://www.livesinprogress.net)