Design Models

An overview of instructional design models:

With an emphasis on SAM

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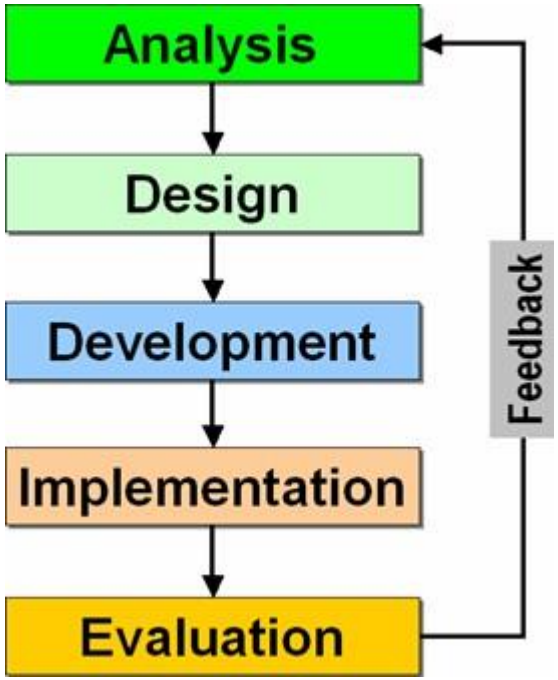
EDTEC 596

ADDIE

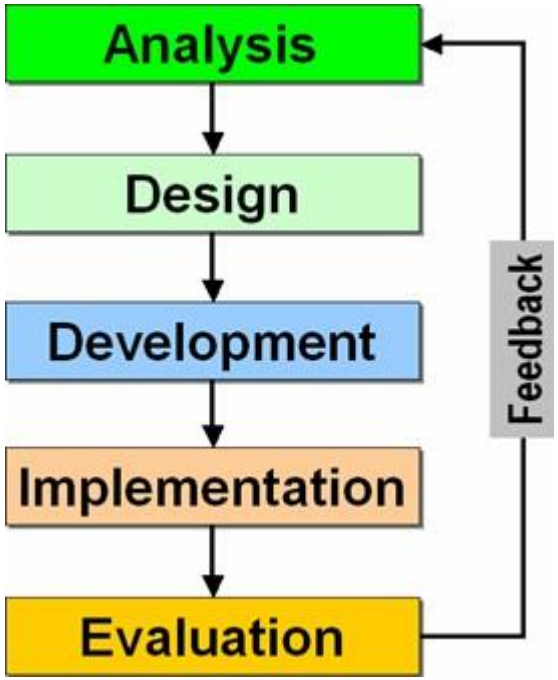


Most popular

Considered very systematic

Advocates say it obtains business results through improved performance

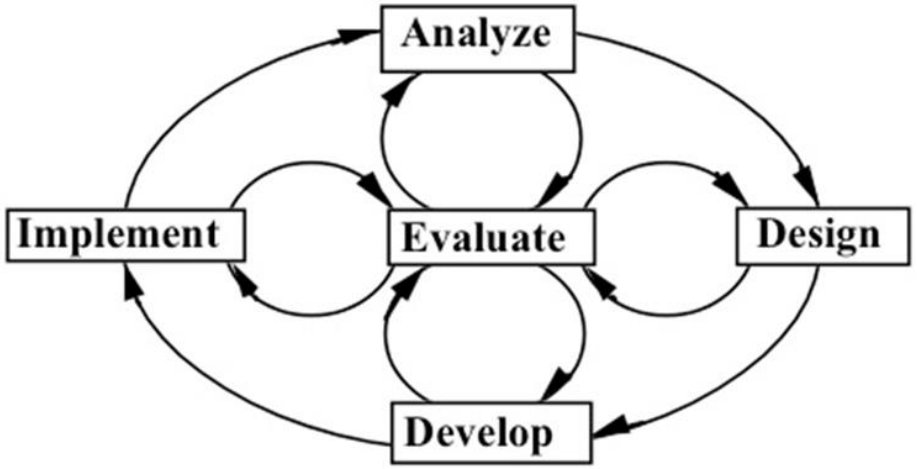
ADDIE



Somewhat time and labor intensive

Been accused of being too linear

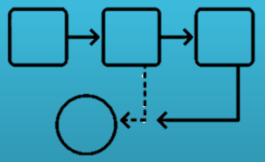
A more flexible ADDIE model?



ADDIE

Warning! Criticism of religion, politics, and ADDIE can sometimes result in this.

The ISD Model



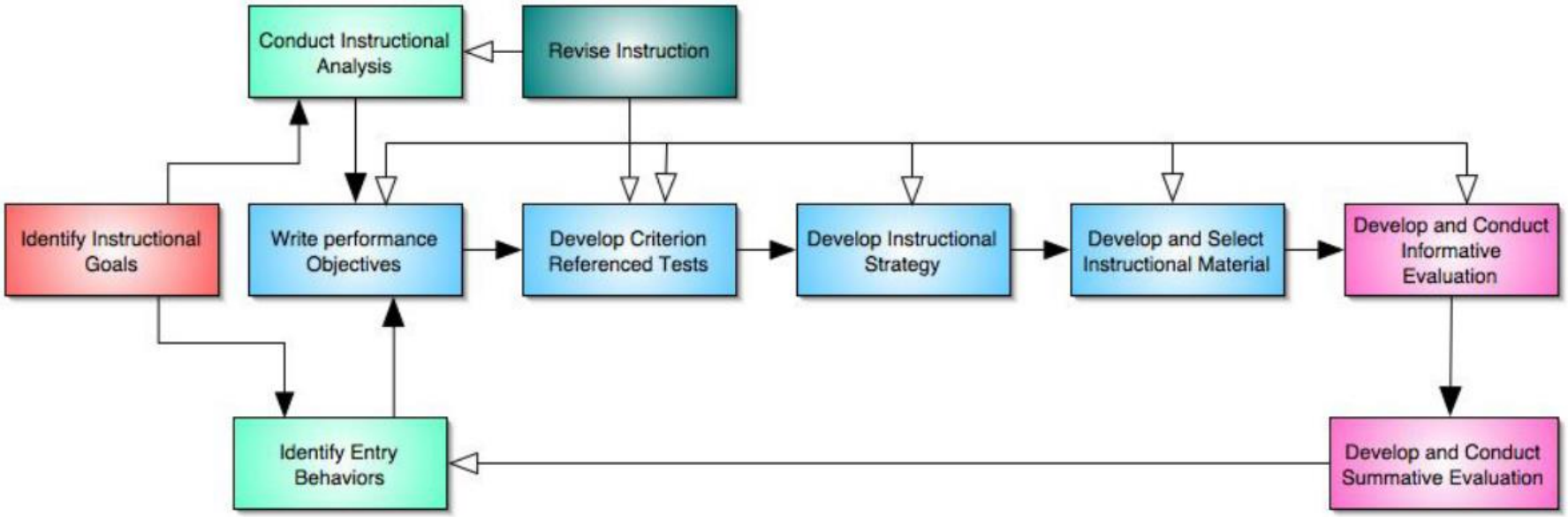


Figure 4: Dick and Carey Instructional Design Model (Clark, 2004)

Instruction broken down into small components

Been popular for a long time

Contains 10 phases

Considered rigid and time consuming

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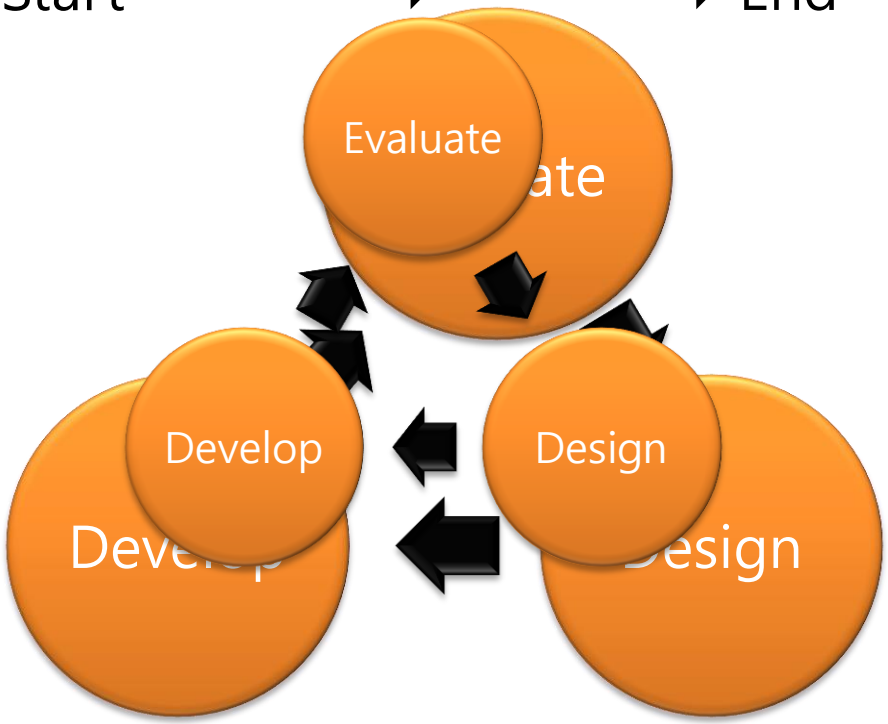
The Successive Approximation Model:

An agile design method

Start → End



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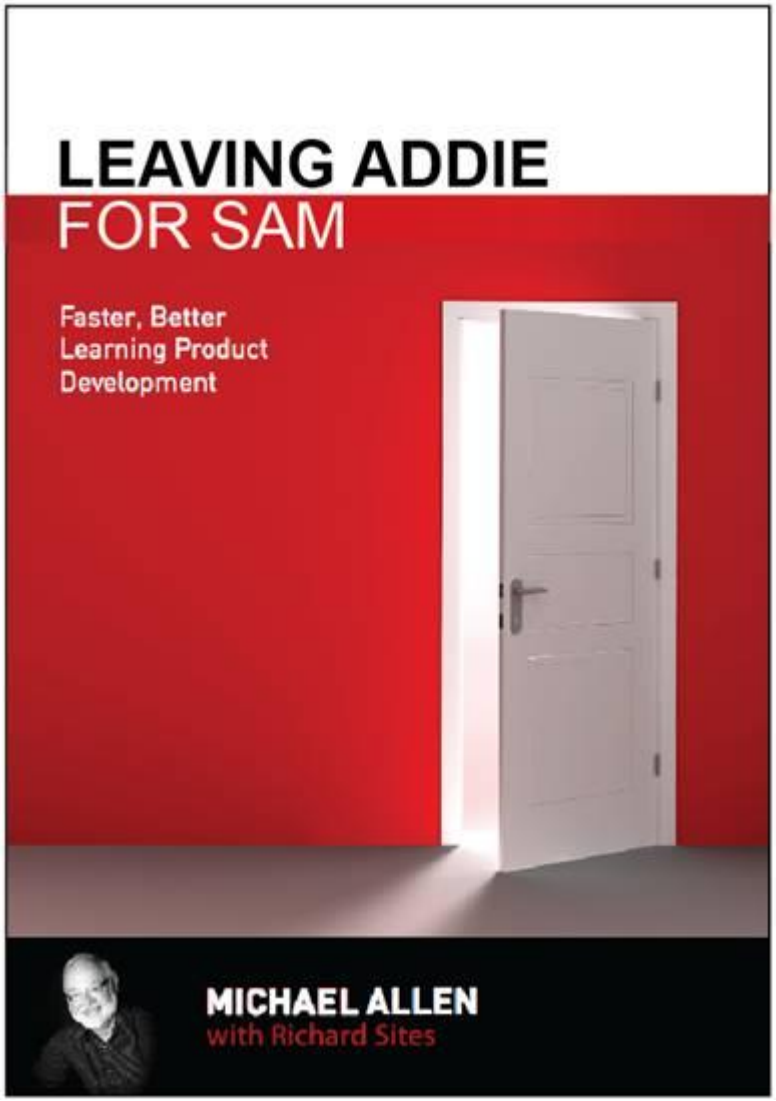
LEAVING ADDIE
FOR SAM
Faster, Better
Learning Product
Development
MICHAEL ALLEN
with Richard Sites


Big Dog & Little Dog's
Performance Juxtaposition

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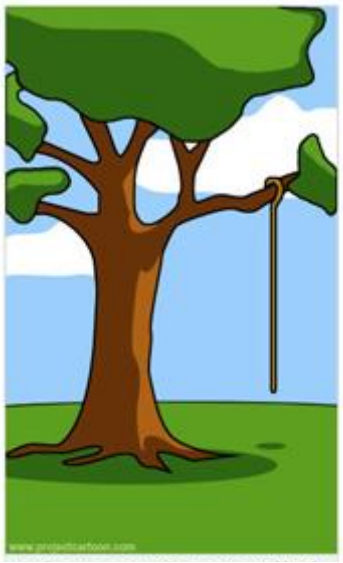
What the customer explained

What the project leader understood

What the designers planned



What the team delivered

What the customer really needed

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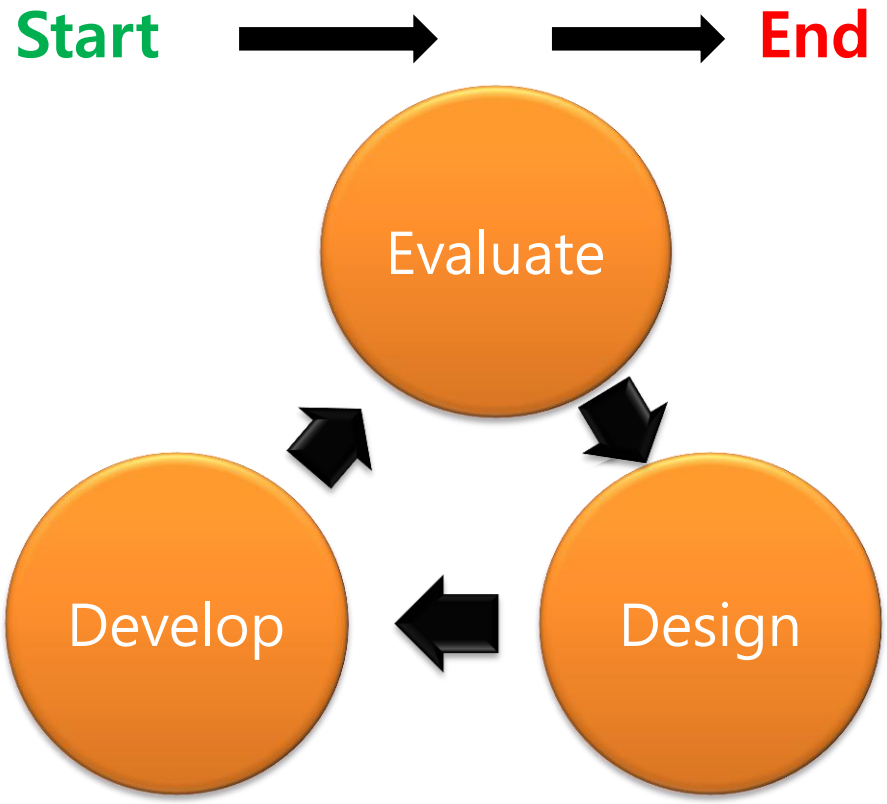
Assumptions of this model:



Expect that mistakes will be made in every stage of the project and these mistakes will need to be corrected.

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What could possibly go wrong?

What happened during testing

What one stakeholder expected

What outsourcing produced

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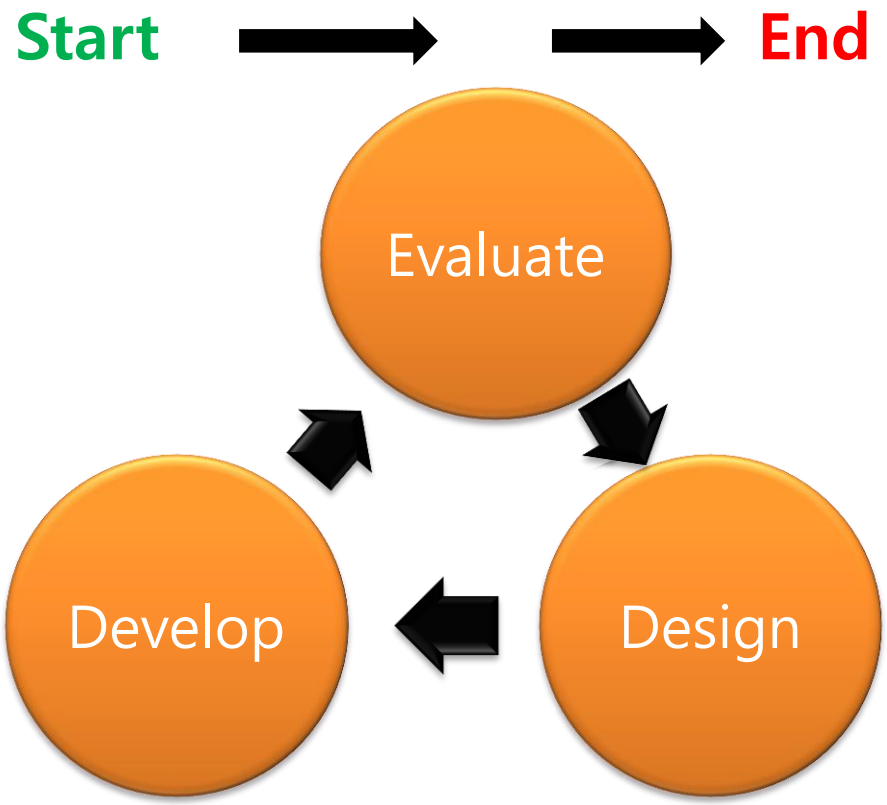
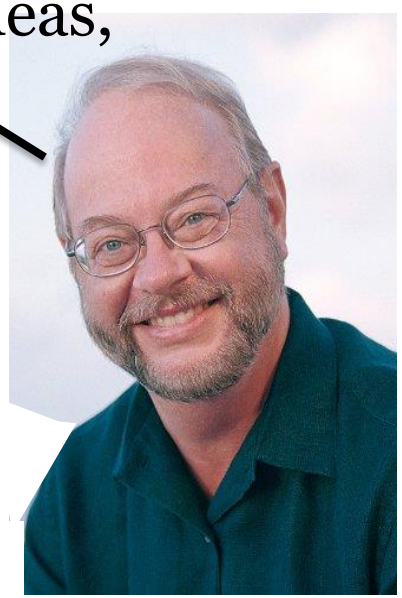
Key criteria of this model:

Collaboration



Meetings are key in this model. Project teams that collaborate effectively take advantage of the ideas, opinions, experiences, and knowledge of team members.



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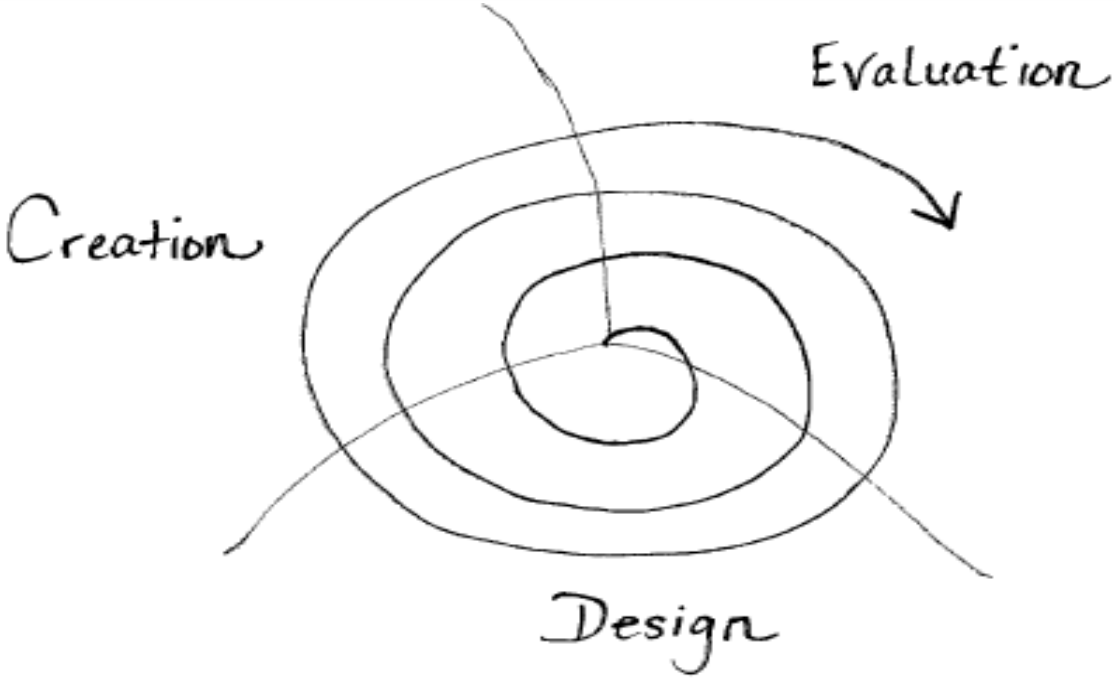

"An iterative approach whereby the designer repeatedly ap plies a three step process of design, prototype, and review in a rapid but controlled process to produce quick but app ropriate eLearning" (http://jolt.merlot.org/vol4no4/steen_1208.htm).

Collaboration tools:

Google+

Mindomo™

To our Class: What do you know and use?

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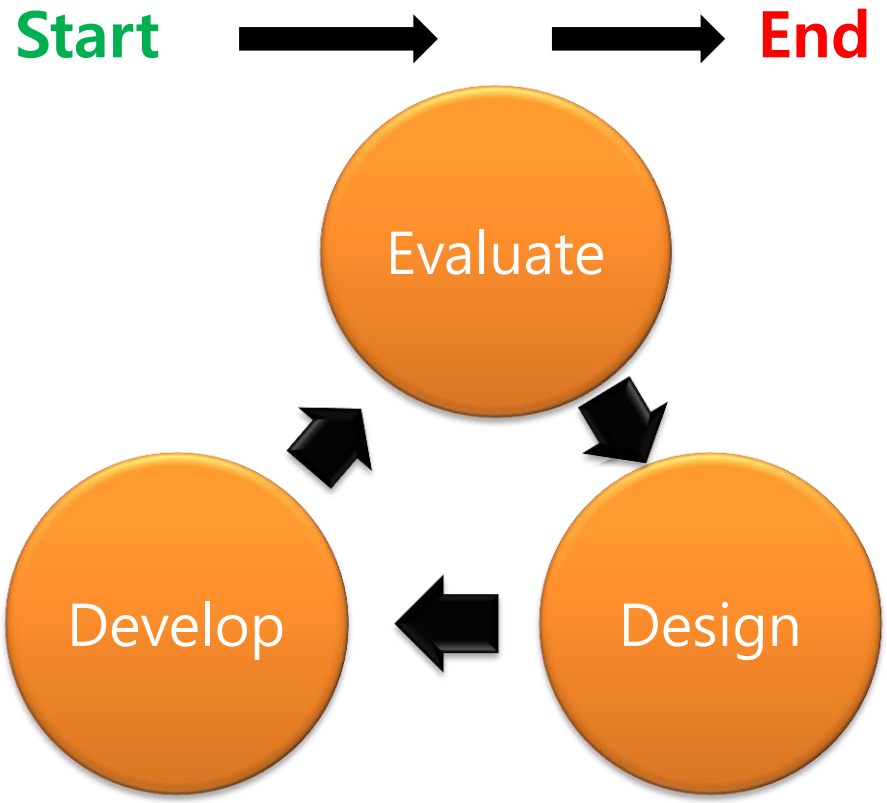

Key criteria of this model:

Iterations

Development done in small steps with frequent early evaluation allows for changes that can be modified or reversed at a time when changes cost the least.

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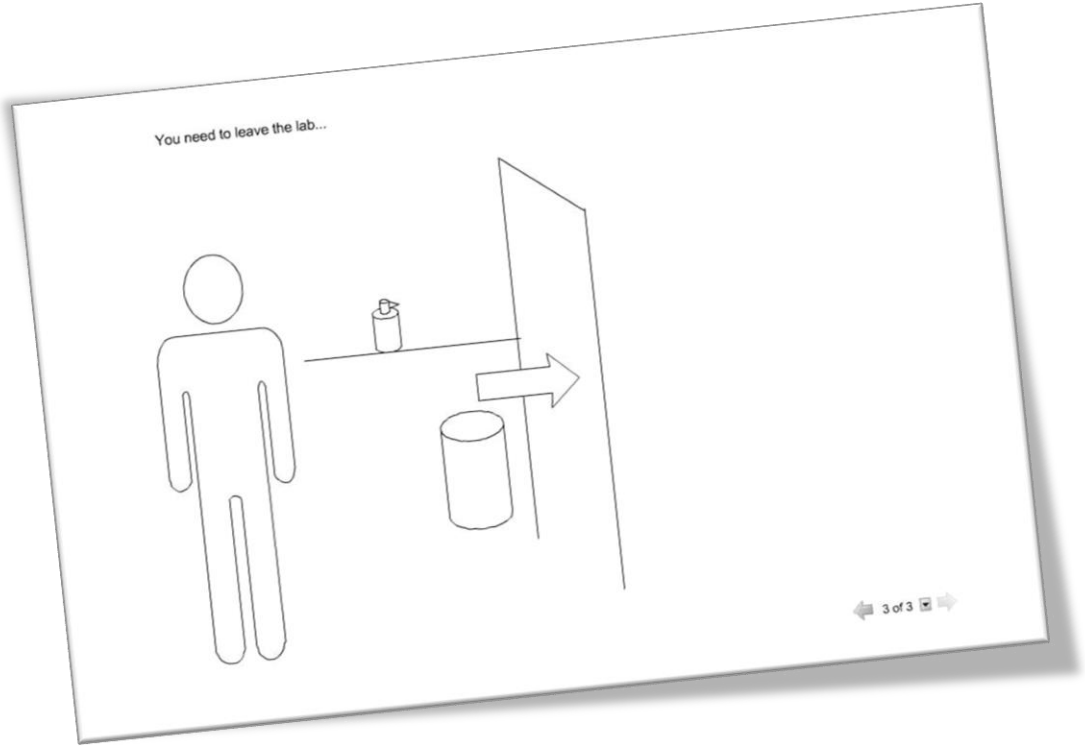
This means prototyping

Prototypes should be quick and dirty. . .

but functional

Take 5 minutes & try out this example of an e-Learning prototype



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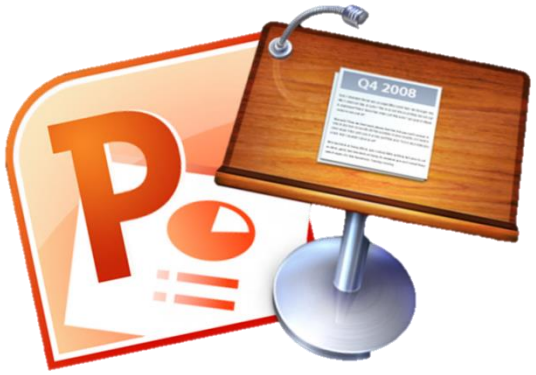
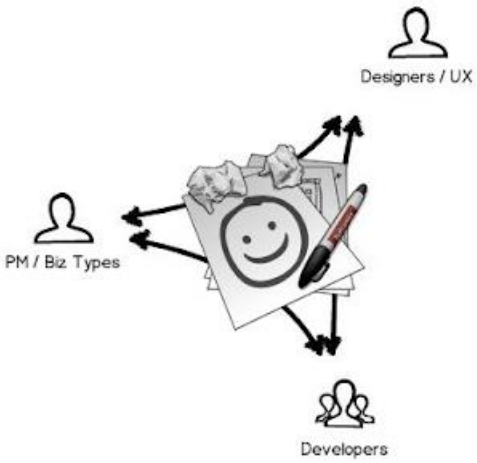
Prototyping tools:



Keynotopia

OmniGraffle for Mac
Visio on Windows
Mockflow.com
Invisionapp.com



See a Demo of **Balsamiq Wireframer**

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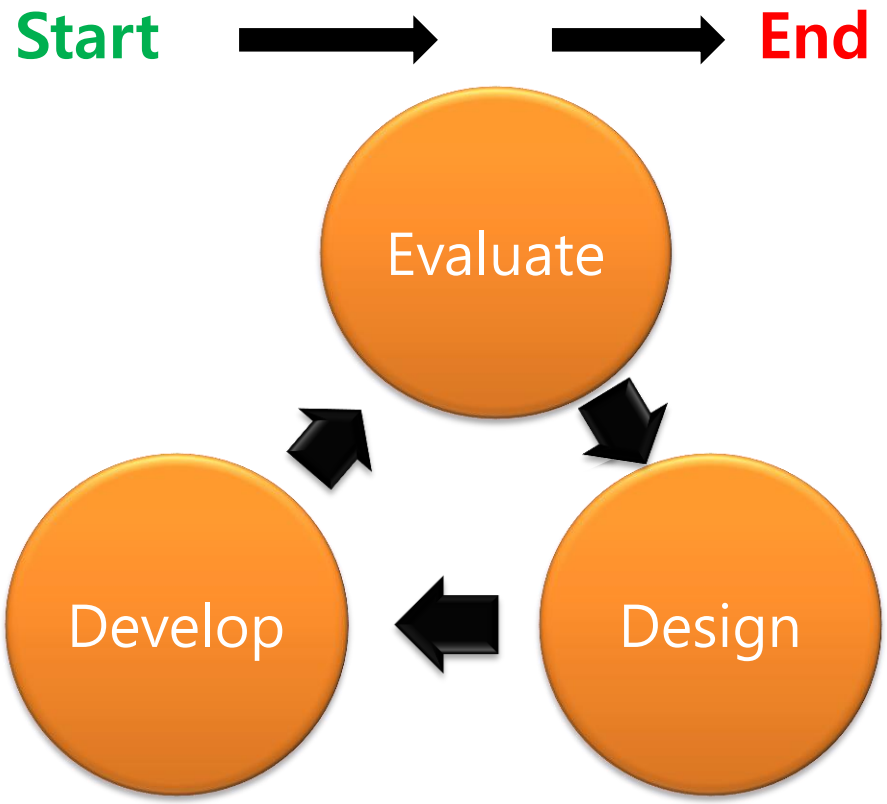

Key criteria of this model:

Efficient and effective

No project is perfect. Outline where energy and resources should be focused and produce usable projects as quickly as possible.

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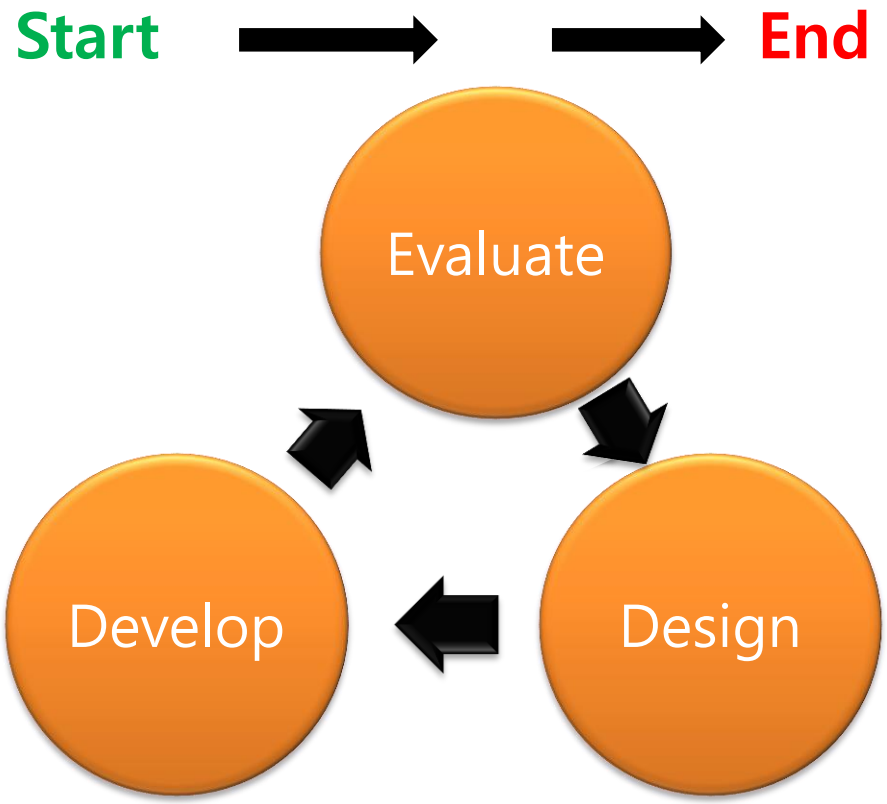

Note that the information on the next few slides doesn't come from me!

Project Types

Face-to-face training with handouts:

- 20-40 hours of development per hour of training
  - ID, content specialist, artist?

Web-based, simple text and graphics:

- 60-100 hours of development per hour of contact
  - ID, content specialist, artist, programmer (light)

Project Types

Web-based procedural training with simple graphics and audio:

- 100-300 hours of development per hour of contact
  - ID, content specialist, artist, programmer

Project Types

Web-based training with scenarios and practice, original art, video, high-quality audio, programming logic:

- 200-500 hours of development per hour of contact
  - ID, content specialist, video production team, artist, programmer

Project Types

- Complex, intelligent simulations requiring original art, high-quality audio and video, plus extensive programming logic:
  - 500-800 hours of development per hour of contact
    - ID, content specialist, video production team, artist, programmer

Time distribution

- **Simple web-based training**
- Assessment of training needs 10%
- Instructional design 30%
- Content development 25%
- Programming 10%
- Production (graphics, audio) 25%

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Time distribution

- **Web-based training with video**
- Assessment of training needs 10%
- Instructional design 20%
- Content development 25%
- Programming 10%
- Production (graphics, video) 35%

Time distribution

- **Complex web-based training**
- Assessment of training needs 10%
- Instructional design 20%
- Content development 20%
- Programming 20%
- Production (graphics, video) 30%

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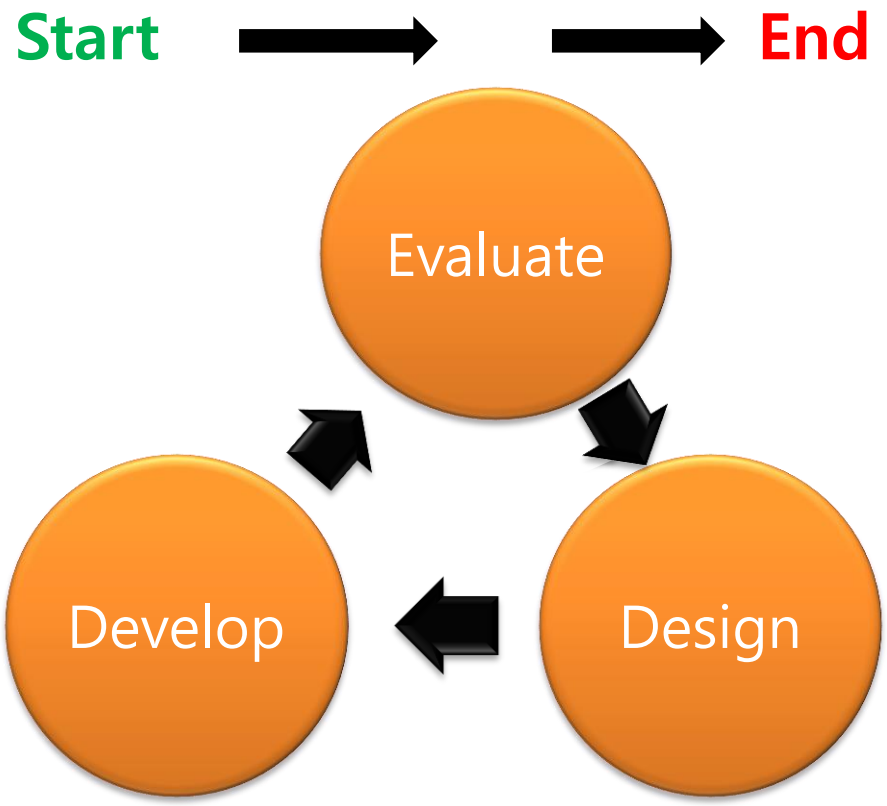
Key criteria of this model:

Manageable



A manageable process allows for the completion of projects on time and on budget with a product that meets established quality criteria.

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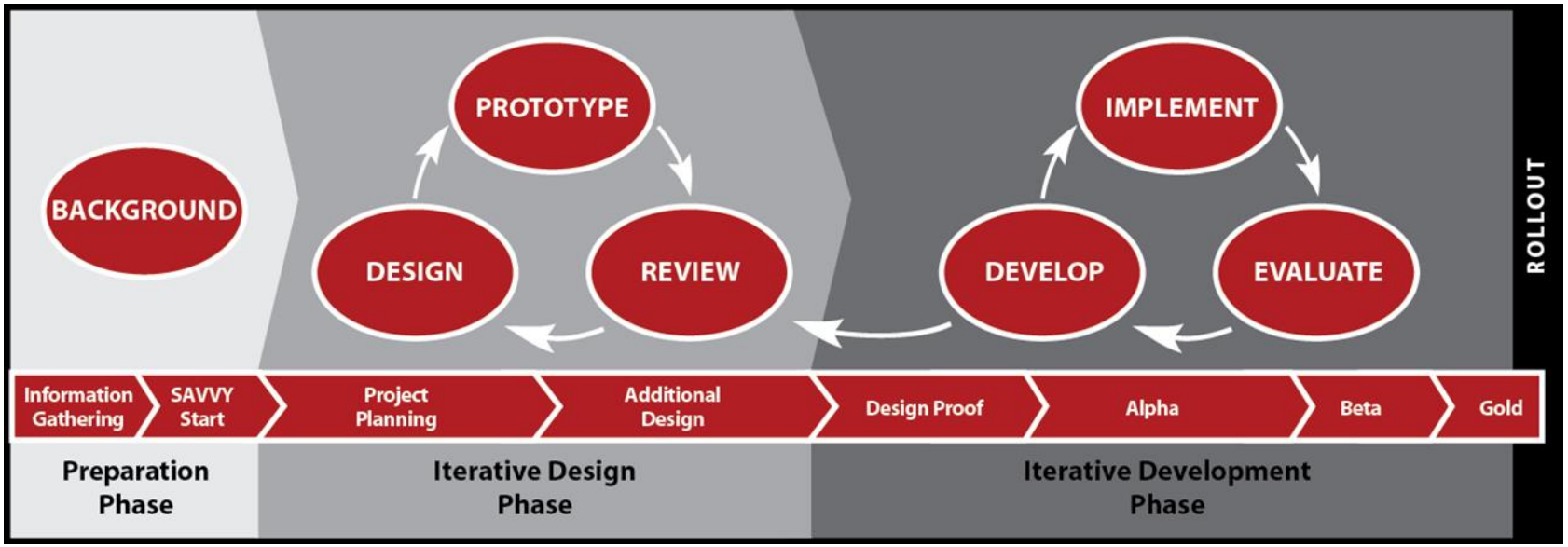
BACKGROUND
PROTOTYPE
DESIGN
REVIEW
IMPLEMENT
DEVELOP
EVALUATE
ROLLOUT
Information Gathering
SAVVY Start
Project Planning
Additional Design
Design Proof
Alpha
Beta
Gold
Preparation Phase
Iterative Design Phase
Iterative Development Phase

Design Models

Some resources for more information:

Minjuan's paper on design models

Michael Allen's Leaving ADDIE for SAM

An hour long interview with Michael Allen (they begin talking about SAM at about the 9m15s point in the video)

Big Dog and Little Dog's Performance Juxtaposition look at design models

Big Dog and Little Dog's Performance Juxtaposition delve in Agile Design

Cathy Moore on prototypes

Icons used in this presentation are from The Noun Project

Lego icon from Jon Trillana

Eye icon from Brexebrex

Design icon from Scott Lewis

Gears icon from Max Hancock

Rocket by Jean-Philippe Cabaroc

Flowchart icon created by James Keuning

Design Models

References:

•Wang, M. J. (2012). Message design for mobile learning. *British Journal of Educational Technology*.

•Teall, E., & Wang, M. J. (In Press). A Synthesis of current mobile learning guidelines and frameworks. *International Journal on E-Learning.*

•Wang, M. J., Brown, F., & Ng, W.P. J. (2012). Current instructional design models and principles for effective e- and cloud-learning. *Open Education Research, 1*8(2), 25-35.

•Machun, P., Trau, C., Zaid, N., Wang, M. J., & Ng, J. (2012). Massive Open Online Courses (MOOCs) and a new fesign framework: Mobiligogy. In J. C. Augusto & M. J. Wang (Eds.), *Proceedings of the Intelligent Campus Symposium*, MaCau, China.