

Instructional Design Models

UBC/KFUPM Workshop 2009



Instructional Design?

“The process for designing instruction based on sound practices”. Instructional design is based on the assumption that learning is improved through applying a thoughtful process to constructing courses. Following some kind of instructional design process allows one to best bring together all the elements of a course - audio, visual, interactivity.

Kemp, Morrison, & Ross, *Designing Effective Instruction*, 2004

Instructional Design

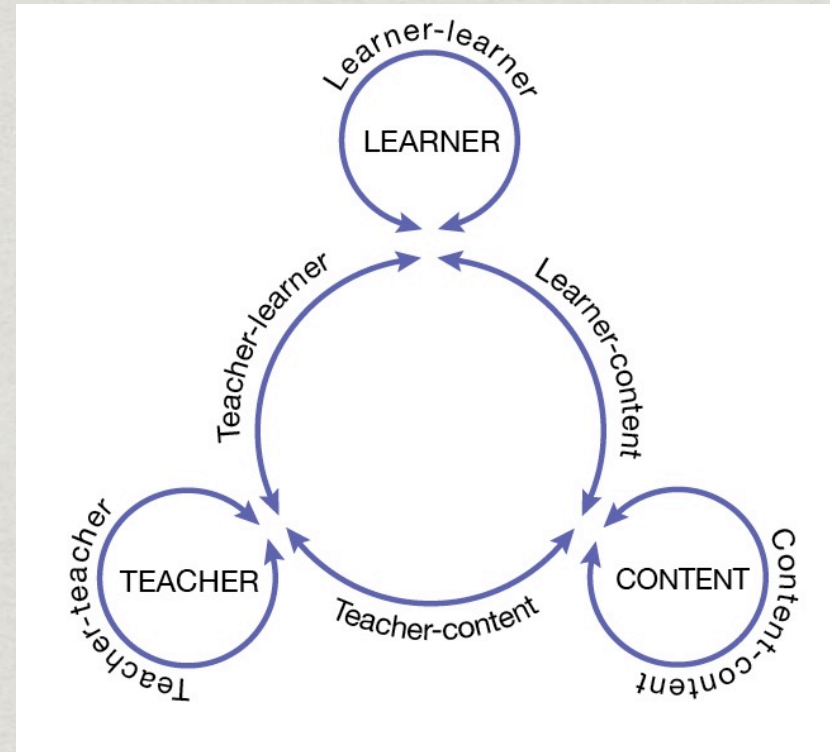
- * Instructional design involves making decisions about:
- * how best to sequence content,
- * how to present information in ways that will optimize learning,
- * how to design and assess learning activities that will allow learners to work with information and apply concepts and principles in ways that will allow them to develop a deeper understanding of the content, and
- * how to design and assess learning activities that will enable learners to develop specific, skills in relation to a field of study or professional practice.

Examples of Instructional Design

- ✦ The technique of providing an overview of the lesson content before actually presenting the content is an example of instructional design that applies what is called cognitive learning theory to teaching.
- ✦ Presenting content in small chunks that are interspersed with self-tests that provide immediate feedback to learners is an example of instructional design that applies behaviorist learning theory to teaching.
- ✦ Presenting learners with several different instances of how a concept manifests itself in the real world and having them work out the underlying principles is an example of instructional design that applies constructivist theory to teaching.

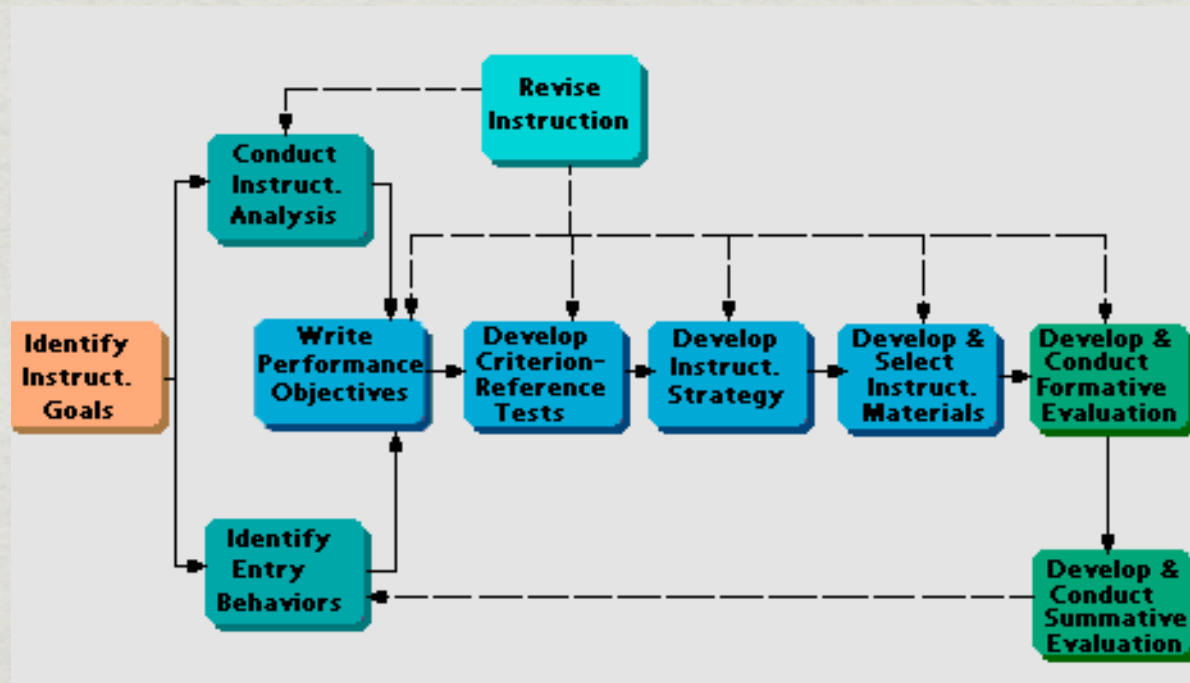
Interaction is key

The challenge for teachers and course developers working in an online learning context is to construct a learning environment that is simultaneously learning centered, content centered, community centered, and assessment centered. There is no single, right medium of online learning, nor a formulaic specification that dictates the kind of interaction most conducive to learning in all domains with all learners. Rather, teachers must learn to develop their skills so that they can respond to student and curriculum needs by developing a set of online learning activities that are adaptable to diverse student needs.”



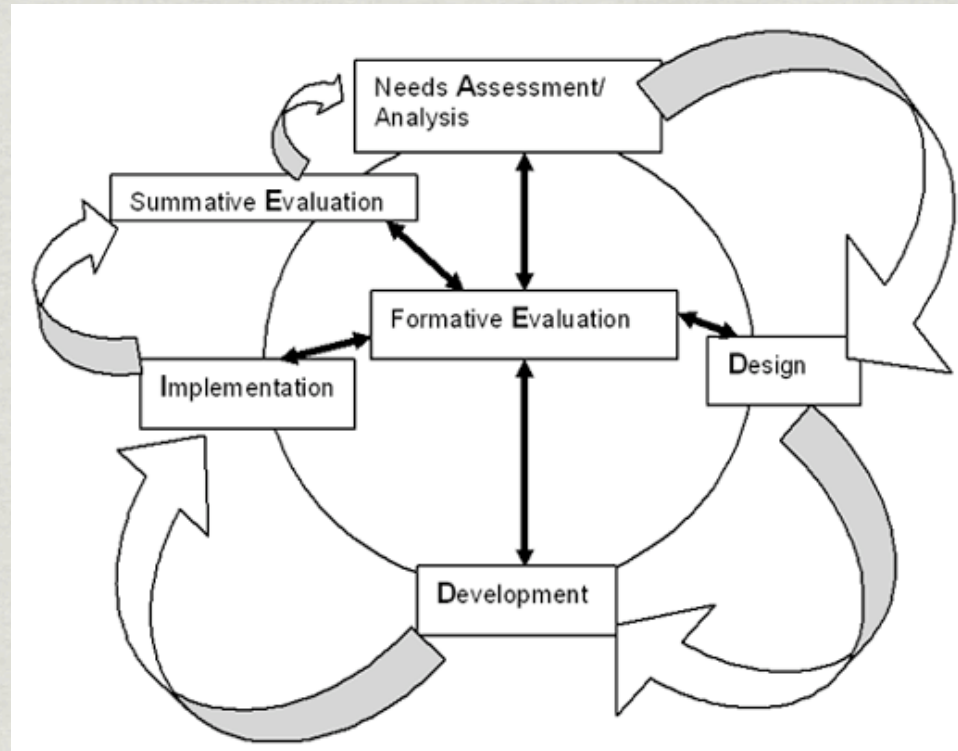
ANDERSON, T. (2004). TEACHING IN AN ONLINE LEARNING CONTEXT

ID Models (Instructional Systems Design)



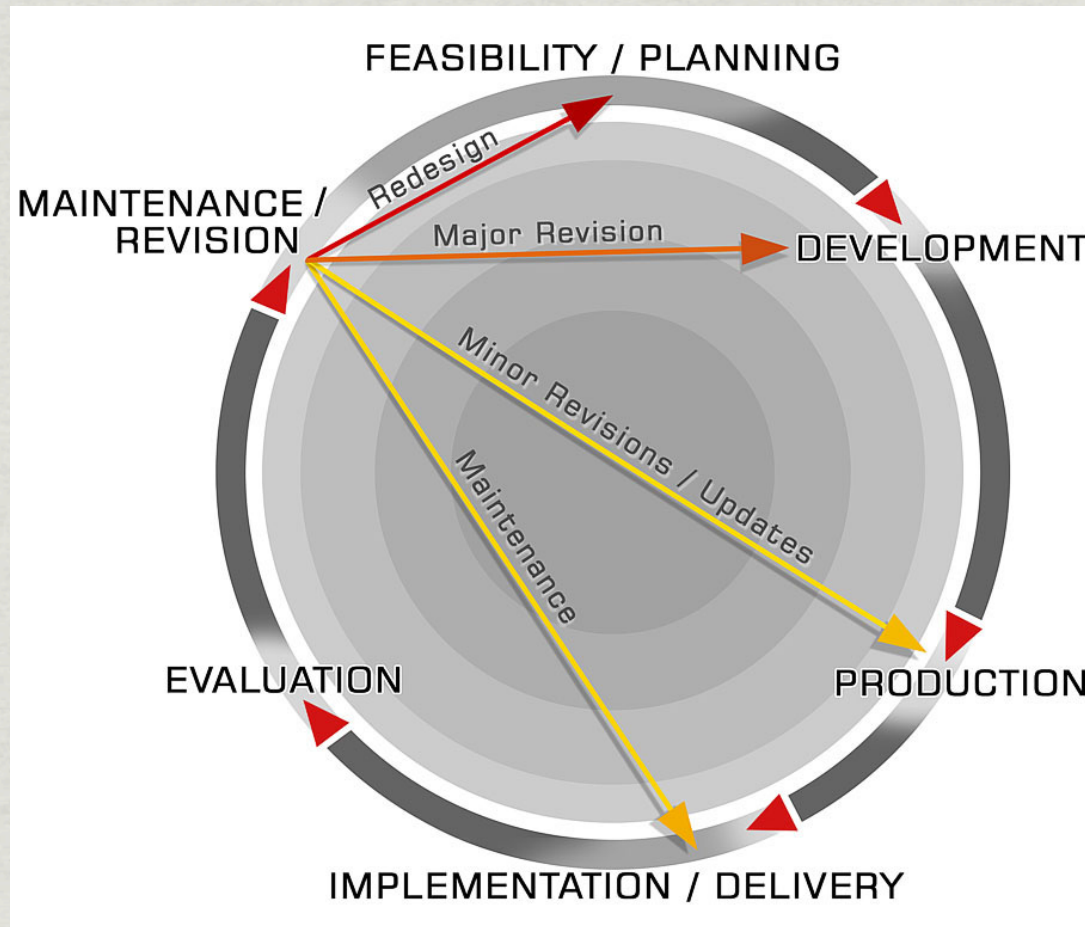
DICK AND CAREY 1990

ID Models

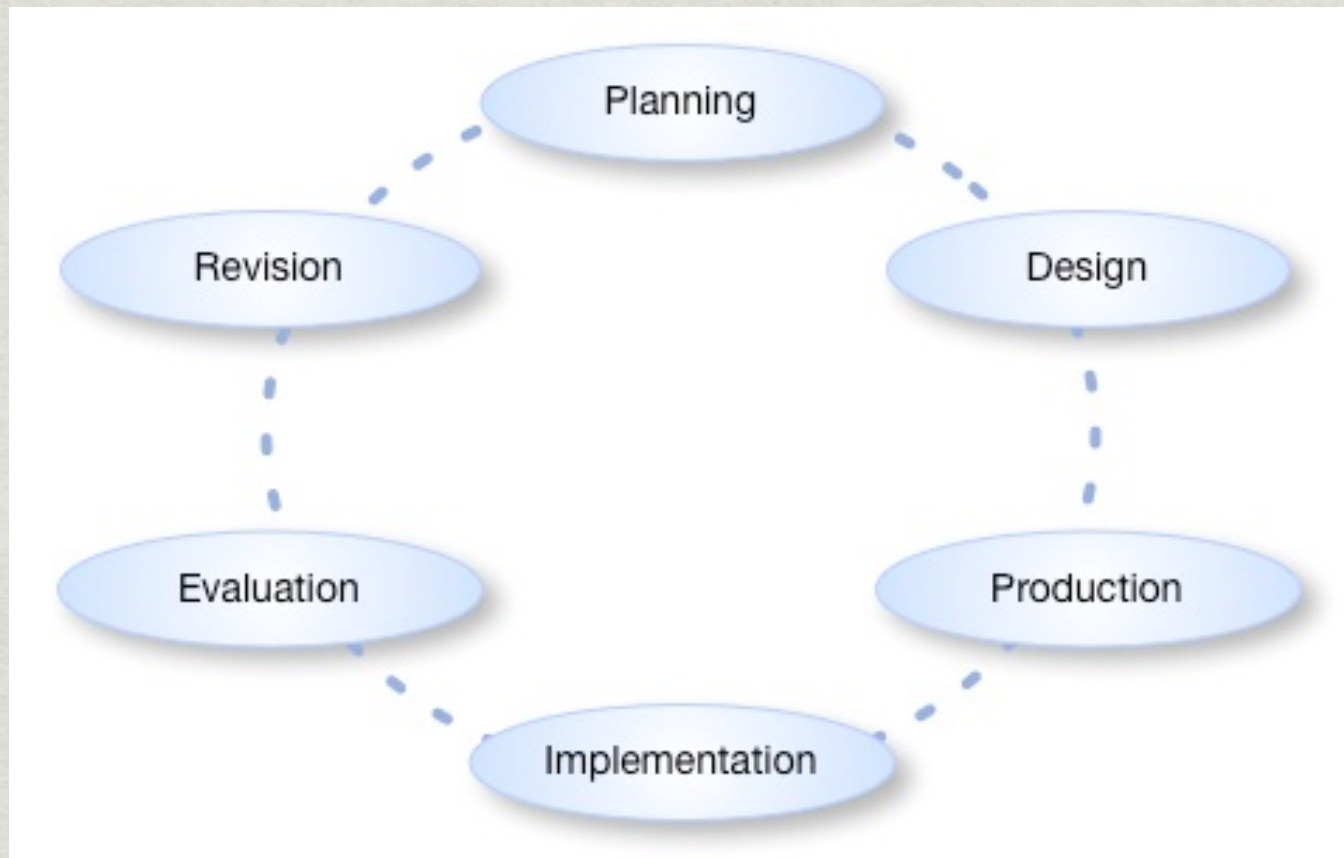


ADDIE MODEL

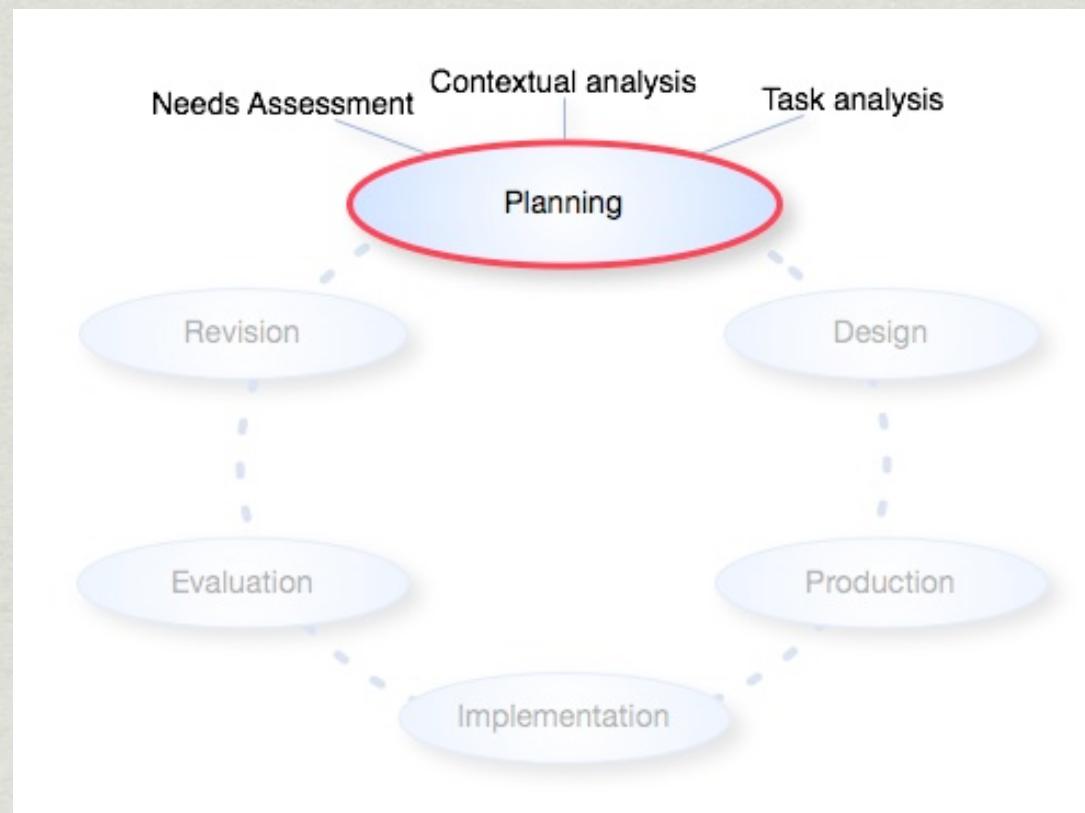
Our Design Model



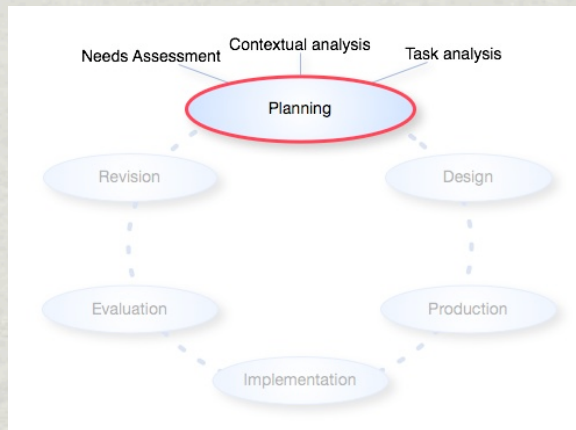
An ID Model



MORRISON, ROSS AND KEMP

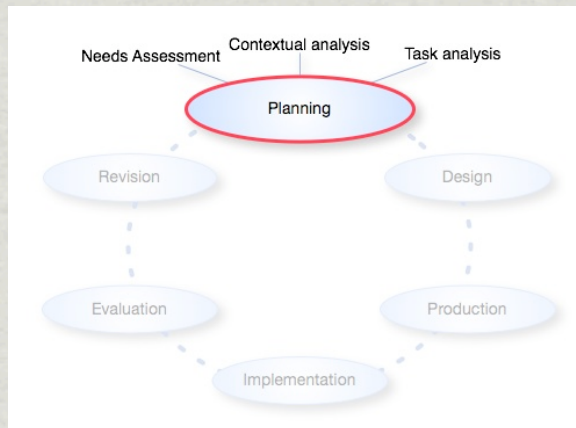


Needs Assessments – Questions to consider



- * Why is there a need for this instruction? What is the instructional goal that you are trying to achieve?
- * Who are your target learners and what do they know now? What do they need to know?
- * What are the most significant gaps between currently held and required knowledge?

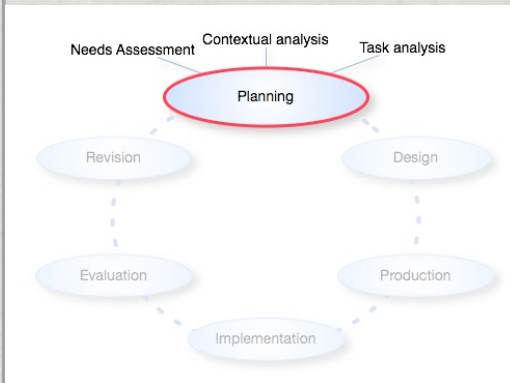
Learner and Contextual Analysis



- * What are the general characteristics of your learners: gender, age, work experience, education, language, cultural background?
- * Do your learners require any prerequisite skills or knowledge?
- * What do you know about the learning styles of your learners?

Task Analysis

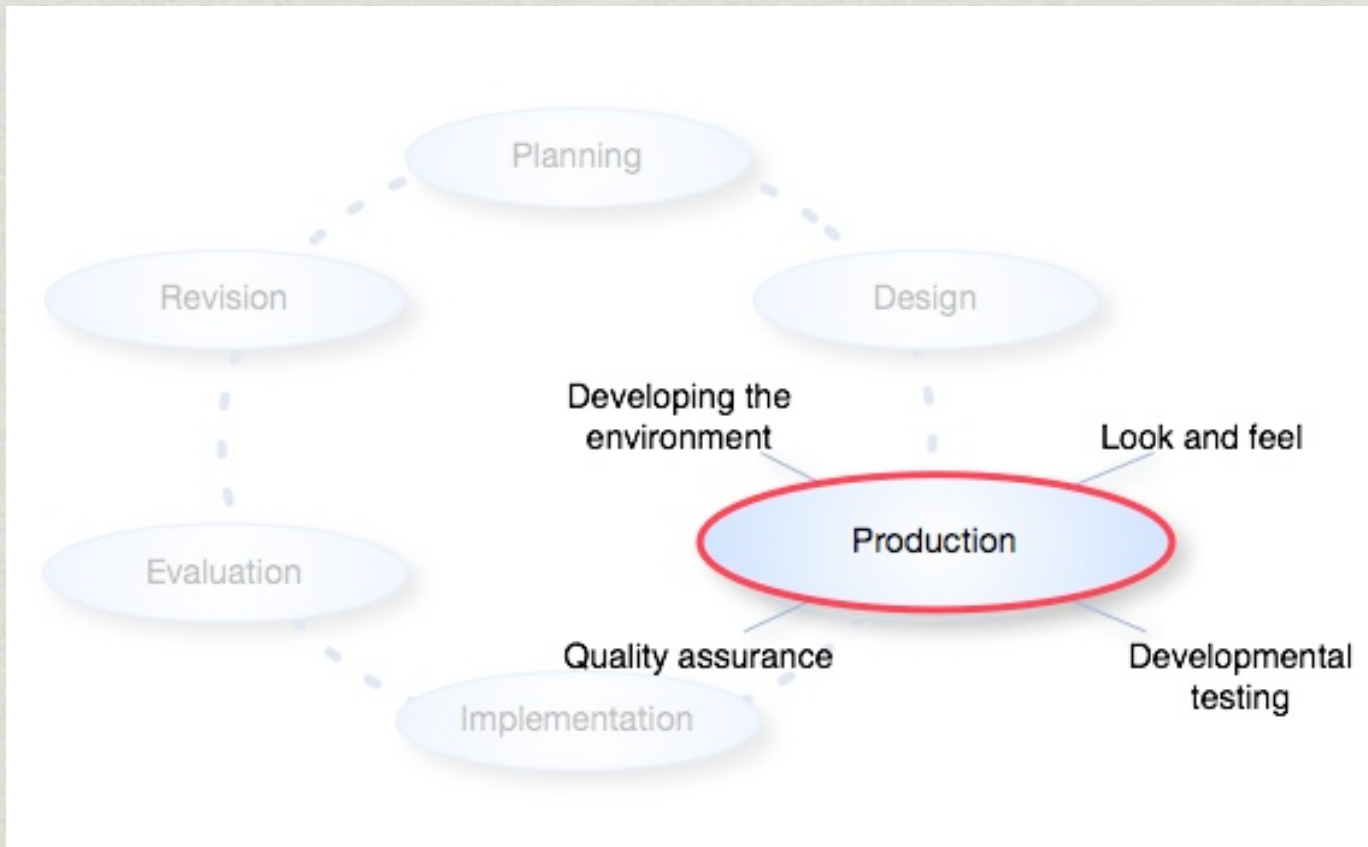
- * What skills and information are necessary to address the needs you identified in your Needs Analysis?
- * What knowledge does a subject matter expert have that is essential to the task?
- * What subject content should be taught?
- * How can the subject content items be organized into component parts?
- * How can the subject content be organized into a sequence?



Design Phase



Production Phase



Implementation Phase



Evaluation Phase



Revision Phase



References

- * Anderson, T. (2009). Teaching in an Online Learning Context. In: Anderson, T. & Elloumi, F. Theory and Practice of Online Learning. Athabasca University.
- * Dick, W. & Cary, L. (1990), The Systematic Design of Instruction, Third Edition, Harper Collins
- * Edmonds Gerald S, Robert C, Branch and Prachee Mukherjee (1994), A Conceptual Framework for Comparing Instructional Design Models, ETR&D, VoL 42, No. 4, 1994, pp. 55-72
- * Morrison, G, S Ross and J Kemp. Chapter Five, “Instructional Objectives.” In Designing Effective Instruction, 4th edition. Wiley, 2004.