

Emerging ID Models – Debra Beach

Introduction

Different approaches have been developed to solve today's increasingly complex instructional problems, to which new technologies (e.g. Computers, interactive media, and Web) have contributed (Kays, 2003).

The two models that are compared in this post are the Beach, Pickrel, Powell model, which is adapted from Hill and Land's (2003) OELE model, and the Sims & Jones (2002) Three-phase Design 3PD model. Both models have their strengths and weaknesses, which will be described and compared.

Emerging Model: Three-phase Design

Irlbeck, Kays, Jones, & Sims (2006) discuss Sims & Jones (2002) Three-phase Design 3PD model (see Figure 1) and its use in instructional design for online distance education. This model based on Emergence theory attributed to Weaver (1948) who utilized it in his work in life sciences. Later it was adapted and applied to the complexities of online instruction. The characteristics of an online environment based on the Emergence theory according to Kays (2003):

“(a) It will be rooted in the needs of the primary clientele of online learning, such as the students and the instructors, (b) it will build upon the analysis of the instructional situation, deriving the needed information and strategies of its delivery from a detailed and systematic breakdown of the student's needs, the available information, and the capabilities of the faculty providing guidance (c) it will adapt to the organic character of the web-like structure of the Internet and will take advantage of the medium's capabilities, (d) it will occur through a creative problem-solving process that will arrive at an optimum solution after consideration of numerous alternatives, (e) it will take place in a collaborative manner as the work of more than one individual, and will benefit from the input of multiple perspectives, and (f) it will happen through an iterative process that continually reframes the issues and or problems and creates an emergent structure” (p. 254).

The 3PD model like others contains phases, which support revision, enhancement, and adaptability. Doing so creates “a learning environment (that) can grow organically with scope to develop schemas and frameworks” The model lets the course needs determine the plan and uses a team-based approach, which naturally integrates the “design, subject matter, and production” (Irlbeck, et al., 2006, p. 179). In simple terms the course being developed follows a continual loop in which stakeholders develop an ongoing working relationship, and which materials are formulated, delivered, and tested (used) over a period of phases and time. In sum this model allows for a more complete consideration of instructional problems and accurate solutions.

A model of this sort would need a skilled team, proper resources, and an environment of trust and collaboration among all the stakeholders. It may however not work well in environments in which the ID department consists of only one to a few people, whose resources are limited, or institutions whose culture does not support collaboration among stakeholders (i.e. faculty and staff).

Three-phase Design (3PD) Model

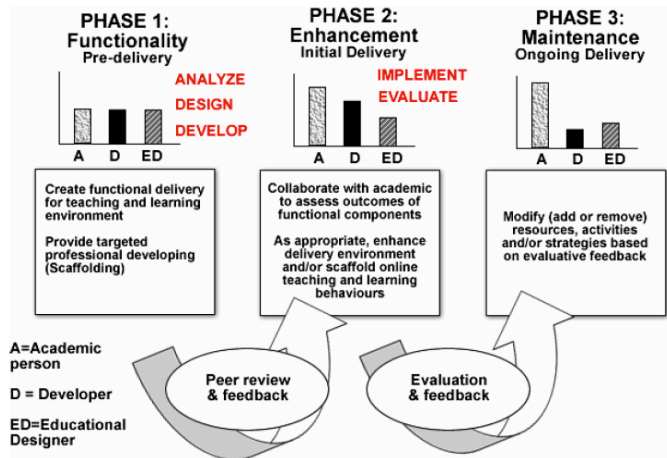


Figure 1. *Three-phase Design (3PD) Model, Sims & Jones (2002). Permission Pending.*

Beach, Pickrel, Powell Model

The model used for comparison is one the Beach, Pickrel, Powell (BPP) team adapted from Hill & Land's (2003) Open Ended Learning Environments OELE model (see Figure 2). It was chosen specifically for its simplicity, flexibility, and potential for use in the online instructional environment. The BPP model uses ID theory based on constructivism and social cognitivism of Miller; 1993, Schunk, 1991; and Bandura, 1986. Like Hill & Lands (2003) model it is learner centric and "characterized by "use of meaningful complex contexts; provision of tools and resources; learner reflections and self-monitoring; and social, material, or technological scaffolding" (p. 1). The BPP model does not impose certain steps, and instead acts as a guide allowing the designer/s to adapt the model to the environment in which it will be used. It allows for continual feedback and revisions to proposed and implemented solutions.

The model suits itself well to online venue as Hill and Land, (1998) state "resources are a critical component of OELEs" and that they may include many formats which function differently, including electronic (audio, video, and web) and library materials. The function of the OELE resources can be chosen by either the learner or educator, but it still support unique purposes and goals.

The BPP model was modified by; taking the existing Analysis phase, changing it to Problem Analysis, and adding a Historical Treatment Analysis. The rationale for adding a historical analysis is that current models do not propose investigating prior treatments. If models only focus on analyzing the problem at hand without reaching back to critically evaluate any historical treatments the result could be a repetition of past mistakes. In the words of Santayana (1905) "In order to sift evidence we must rely on some witness, and we must trust experience before we proceed to expand it" or "Those who cannot remember the past are condemned to repeat it". The model BPP illustrates the addition of an extended or pre-analyze phase to assure that the solution that is proposed for the

current problem will not be a duplication of effort nor overlook elements of prior treatments that may be essential to the effectiveness of the intended solution. In addition the BPP model is scalable and easily used by one designer or a large team of stakeholders (e.g. designers, faculty, staff). This feature makes it more usable for smaller organizations that might not have the staff or resources for more complex models.

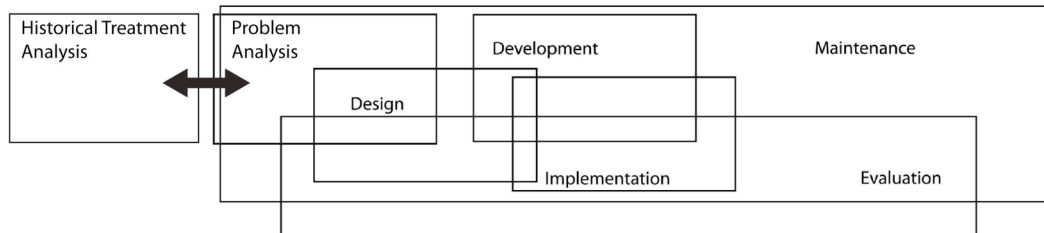


Figure 2. Adapted Hill and Land (2003) OELE model with historical treatment analysis, Beach, Pickrel, Powell, (2008).

Comparisons: Strengths and Weaknesses of Models

Table 1
Model Comparisons

Attributes	3PD	Adapted OELE
Learner Centered	Yes	Yes
Effective for Online Instruction	Yes, Designed for Online Instruction	Yes, but can be used for face-to-face instruction too.
Applicable/Usable in User Controlled, Web 2.0 Environments	Yes, well suited	Yes, but Instructional Designer must be skilled.
Flexible	Yes	Yes
Allow for Creativity	Yes	Yes
Underlying Theories	Emergence	Constructivism, Social Cognitivism
Approach	Bottom up, Starts with the end use in mind	Left up to Instructional Designer
Problem Solving	Highly Individualized	Med-Highly Individualized
Linear/Non-linear	Non-linear	Non-linear
Continual Feedback Loops	Yes	Yes
Scalable	Medium to Low	Highly
Expertise level needed for Instructional Designer	Medium to High	Low to Medium
Delineates Stakeholder Responsibility/Evolvement	Yes, Specifically	No, Left up to the Designer
Includes Investigation Into Prior/Historical Treatments	No	Yes

Conclusion

Solving instructional problems and finding appropriate models is a challenge in both small and large institutions in which instructional design is practiced. The models presented and compared in this paper both have much to recommend themselves and also have shortcomings. While no one model may work for all situations, it may be worthwhile to further research the possibility of adding the use of a historical analysis used in the BPP model to the 3PD model, thereby increasing its potential efficacy.

References

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