

Comparison of Instructional Development Models:

1.) Designing Instruction for the Adult Learner - Richey

2.) The Training Wheel - Rogoff

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Overview

The two models that I selected to review are business oriented since this is most directly applicable to my current instructional design. From the list provided, I selected the Systemic Training Design Model (STD) by Rita Richey, 1992; and The Training Wheel Model by Rosalind Rogoff, 1987.

This article provides a very brief synopsis of each, and sets up a comparison between them, based upon the concepts presented in the lecture on March 1, 2004. At the end, I will discuss the applicability of each model within the context of the instructional unit I am developing for my IT 6110 project.

Designing Instruction for the Adult Learner – Richey

(Designing Instruction for the Adult Learner. Rita Richey.1992. ISBN 07494047789.)

Name of the Model

Systemic Training Design – Rita Richey offers up a definition for the systemic approach used in her book as ‘the creation of unified and dynamic wholes (from previously separated components) to effect the transformation of learning’ (Beckwith, 1988). Furthermore, she states that systemic infers concurrent consideration of the many aspects of a situation which can affect the learning process, whereas systematic implies using specified procedures to design instruction. This may seem to be a subtle distinction, however, the difference is major in terms of the philosophy towards training.

Implications of STD:

- *Avoiding use of inflexible lock-step design procedures;*
- *Increased attention to the dynamics of a given instructional context; and*
- *More consideration of the nature of the individual learner.*

Consequently, STD requires two fundamental changes to the typical design process:

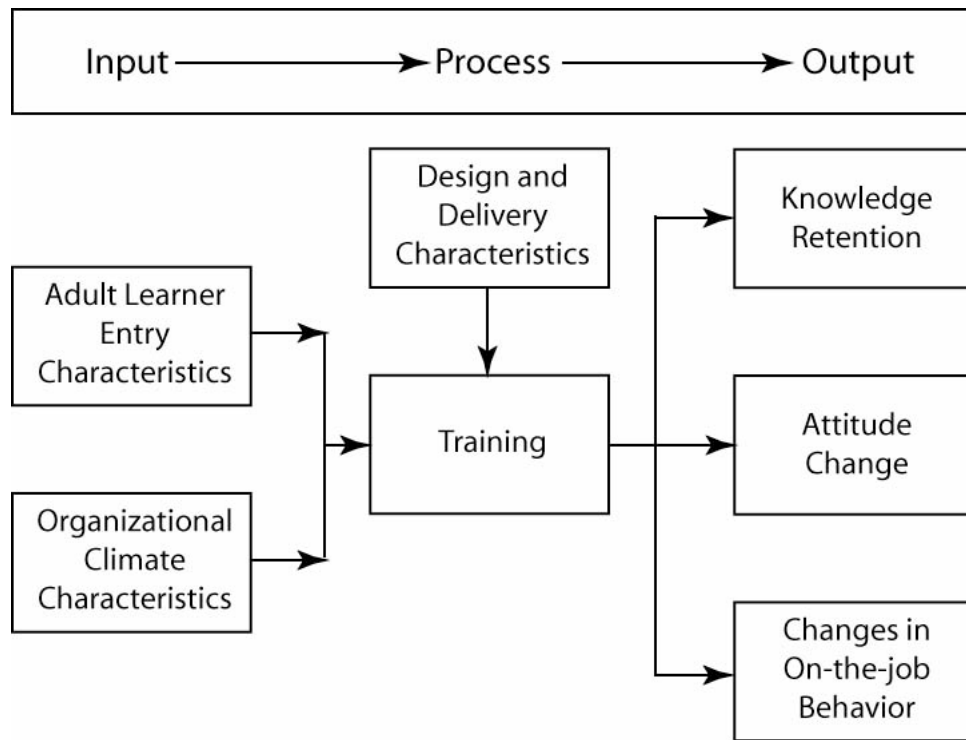
1. The steps must be more iterative, and
2. The instruction must address a wider spectrum of variables than only those variables which concern learner prerequisites and the nature of the content.

As a result, the STD approach places emphasis on the instructional design's fundamental emphasis on learning, rather than the creation of instructional products.

Major Steps of Model (Summary of steps)

Dr. Richey posits that systemic design has more to do with creative problem-solving than with scientific methods to address the teaching-learning process. Variables to consider in the design process, then, tend to reflect the learners' own backgrounds and their perspectives of the environments in which they work.

The general model is an input-process-output model with multiple training outcomes and input from the learners, the environment, and the design and delivery characteristics.



Systemic Training Design Model

The general model, shown above, is further decomposed into four sub-models, based on four types of achievement in employee training.

1. Increased Knowledge
2. Improved Attitude
3. Improved Specific Behavior
4. Improved General Behavior

The general model speaks to the effects of a broad network of variable clusters upon training outcomes. The network is determined to a great extent by:

- The employees' pre-training knowledge, attitudes and work habits;
- The quality of the training program's instructional design and delivery; and
- An array of systemic factors which describe the typical trainees' background and attitudes, and the nature of the organizational climate.

Basis for Model (Behavioral Theory, Cognitive, etc.)

The STD model has been viewed as complementary to the performance improvement and constructivist movements. It is based on the recognition that "organizational climate, one's work history, past training experiences, and delivery system attitudes account for as much knowledge retention as do formal design factors" (Richey, 1991, p. 20). I would conclude that the basis for the model is cognitive and behavioral.

Intended Users

The audience for this model are adult learners "...anyone over 18 years of age in an instructional situation, formal or informal."

The study focused on Ford Motor Company Employees (50,000 Salaried and Hourly) as part of a corporate-wide effort to promote manufacturing plant safety.

The Training Wheel - Rogoff

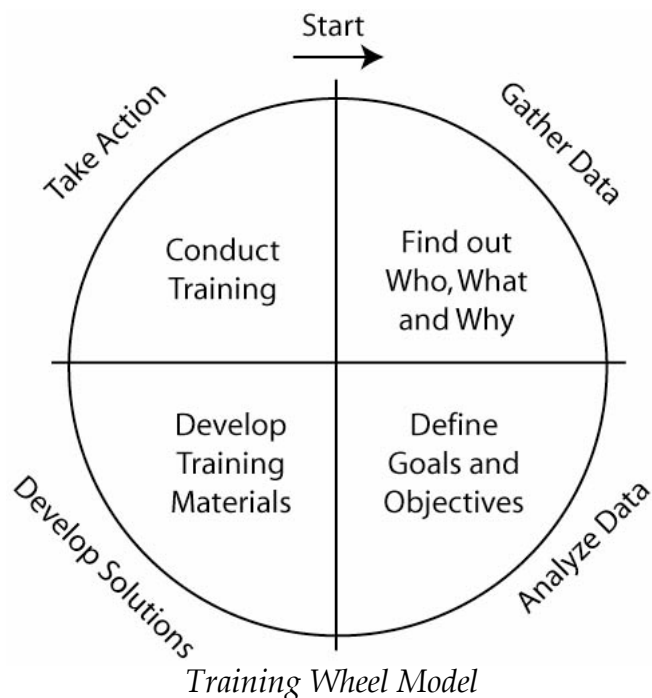
(*The Training Wheel*. Rosalind L. Rogoff. 1987. ISBN 047183467X.)

Name of the Model

The Training Wheel - Dr. Rogoff intended to provide a bridge to reconcile positions between instructional designers, who want to fit everything rigidly into an ISD model, and SMEs who want to do a knowledge dump for every class.

Major Steps of Model (Summary of steps)

1. Gathering Data – Find out who, what, and why (data gathering)
2. Analyzing Data – Define goals and objectives (data analysis)
3. Developing Solutions – Develop training materials (solutions development)
4. Taking Action – Conduct training (take action)



Basis for Model (Behavioral Theory, Cognitive, etc.)

This model focuses on skills training and development. The wheel metaphor implies an iterative approach in that you spin around as many times as it takes to get where you're going. The pilot project, which served as the basis for the book, was to develop skills training materials for a data processing system designed to track engineering changes. My conclusion is that the basis for the model is behavioral with some cognitive aspects (i.e., learning and applying rules).

Intended Users

Intended users for the model are corporate skills trainers, who typically come from one of three groups:

- Professional instructional systems designers, graduated from instructional design programs
- SMEs with lots of technical expertise
- Former school teachers

The training audience is typical adult learners in business situations (e.g., secretaries, technical writers, managers, etc.) The desired outcome of this type of training is to acquire or reinforce a particular skill set.

The targeted training audience can be described by department name or code, job title, brief description of job tasks, education and experience, misc. comments, and estimated number of individuals in each category that may require training.

Summary of Two Models

The two models reviewed are both intended for corporate training development. Each takes a pragmatic approach to instructional design by blending real world application with formal instructional design models, as opposed to rigid adherence.

In my opinion, the STD model provides more of a structure for measuring and analyzing learner and environmental characteristics as inputs to the design process. The Training Wheel model appears well suited for continuous refinement of the methods and processes to ensure that the training meets the task.

Strengths and Weaknesses

The relative strengths and weaknesses of each model would seem to depend on the intended application and audience. For instance, both are intended for corporate training application in a compressed time frame.

The simplicity of the Training Wheel model makes it adaptable by those who do not possess a formal instructional design background. What appears to be lacking is a formal feedback mechanism to gauge whether the desired outcomes have been met (i.e., the goals and objectives have been achieved.)

The STD model takes into account four categories of achievement in employee training outcomes. It follows a creative problem solving approach which takes into consideration variance in learner and environmental characteristics. Whereas this does not necessarily guarantee individualized learning, it allows the instructional designer to adjust the design and delivery strategies for different roles and training outcomes. The single potential weakness I saw with the STD model is that it follows a linear approach which could have an impact if the desired outcomes were to change.

Application to Instructional Unit

Either of the models discussed could be applied to the instructional unit I am designing for trading in stock options. Given the close association with research tools, main market indexes, and required experience level of the learner, the STD model offers the better fit.

Additional References

Richey, R.C. (1991). Adult attitudes toward alternative delivery systems and industrial training outcomes. Proceedings of Selected Research Presentations at the Annual Convention of the Association for Educational Communications and Technology.