A comparison of the Dick & Carey Model and Gagne's Nine Events of Instruction as related to Instructional Design

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Introduction

There are many theories and models that oen may use when attempting to design to Distance Education (DE). Most are not specific to the discipline itself, but are rather drawn from other social sciences such as Education, Communication and Psychology, to name a few.

The two models I choose to compare in this paper, and which I believe are most appropriately used for planning DE are: the Dick and Carey ID Model and Gagne's 9 Events of Instruction.

Dick and Carey ID Model

In our textbook, Simonson states, "Instructional design should consider all aspects of the instructional environment, following a well-organized procedure that provides guidance to even the novice distance instructor."

Walter Dick and Lou Carey's Instructional Systems Design Model does just that. It is a process that is linear in its nature but with iterative functionality for almost all of the ten steps included in it. (See below)
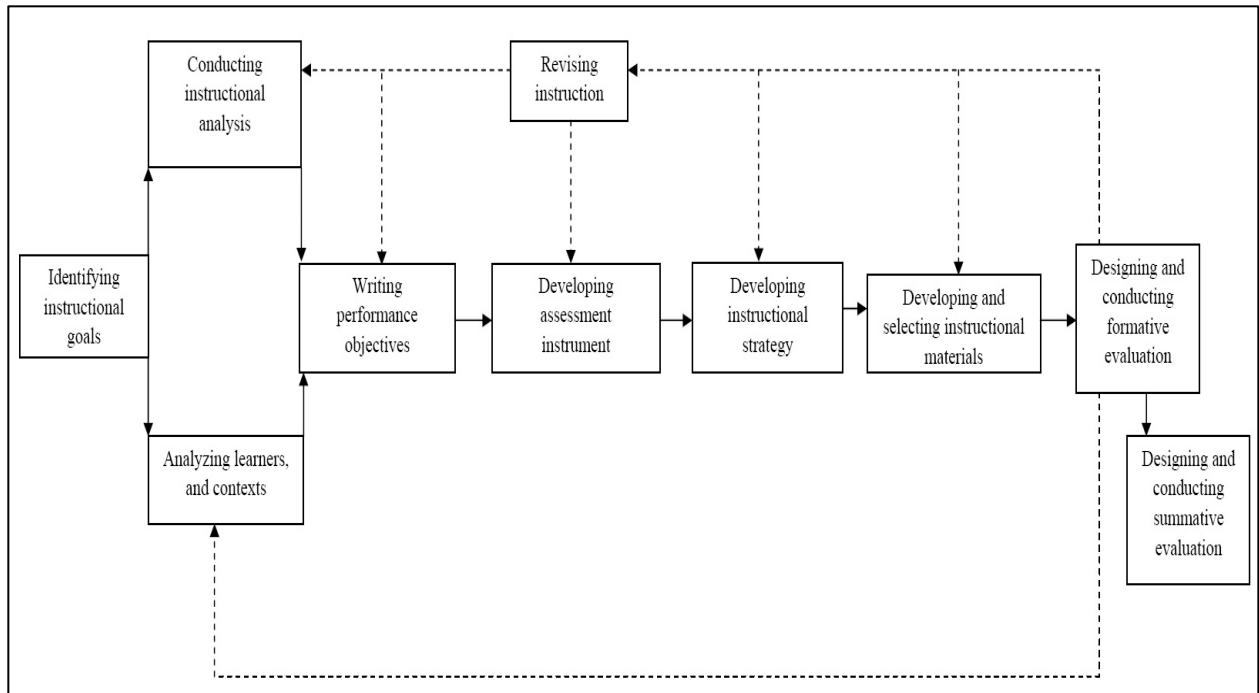
The dotted lines represent iterative functions of the steps in the process. The solid lines represent the more linear (direct) functions of the steps.

- *Identify Instructional Goals*- requires the designer to describe or skill or knowledge that they desire the learner to acquire by the end of the instruction.

- *Instructional Analysis*- this would help the designer determine which intellectual skills are necessary for the objective (Learning-task analysis). It could also cover the skills needed in order to reach each step in the process of learning (Task-analysis).

- *Analyzing learners and Contexts*- enables the designer to determine which skills and abilities the individual learner brings to the learning table in addition to prior experience and learning.

- *Write Performance Objectives*- the designer must write a description of the desired learning behavior, condition of the learning and the standards in which it must be conducted.

- *Developing Instrument Assessment*- this includes pre-tests, post-tests, practice questions/items, all in order to ascertain the student learning progress and assistance in evaluating the quality of the project design itself.

- *Developing Instructional Strategy*- this includes instructional activities, content of instruction, ability of learner to actively participate and assessment of these items and events. Some believe that Learner-centered or Learner-paced designs are best for DE.

- *Developing and Selecting Instructional Materials*- select appropriate media and material to be sued for the content of instructions. Can include printed materials, video, audio files or textbooks as well as textual (threaded discussions).

- *Design and Conduct Formative Evaluation*- this assists the designer with data with which to make informed decisions regarding revising and improving the course or course materials.

- *Design and Conduct Summative Evaluation*- assists designer with studying the course as a whole and its effectiveness in relaying the content necessary to ensure learning. This is accomplished at end of the course in order to more effectively determine the course's effectiveness.

- *Revise Instruction*- this step can be used at any time in the process in order to assist the designer in identifying poor instructional methods or content or poor course structure.

Gagne's Nine Events of Instruction

In 1965, Robert Gagne first published a book entitled "The Conditions of Learning". He identified and listed what he believed were the mental conditions for learning. He then went about creating and identifying a nine-step process he believed would address those conditions of learning he had previously listed.

This is not technically a model to be used for strict design or creation of a DE course, but rather his work should be used as a reference for the implications of a designer's applications in the course design process. It is a wonderful tool to use, simple in its logic and layout, but far-reaching in its effects on assisting designers and educators with helping to build a better learning experience.

Gagne's 9 Events of Instruction

Instructional Event
1. Gain attention
2. Inform learners of objectives
3. Stimulate recall of prior learning
4. Present the content
5. Provide "learning guidance"
6. Elicit performance (practice)
7. Provide feedback
8. Assess performance
9. Enhance retention and transfer to the job

- *Gain Attention*- this step serves to obtain the attention of the learner, in order to help ensure they watch or listen to the content being delivered

- *Inform Learners of Objectives*- This enables the learners to anticipate what they should organize their thoughts and attention on, in order to prepare for the content to be delivered

- *Stimulate Recall of Prior Learning*- This allows the learners to recall what they have previously learned and attempt to prime it (so to speak) for what they are about to learn and connect the two

- *Present the Content*-The instructor delivers the content, utilizing a number of different media (lecture, printed material, audio, video, etc.)

- *Provide "Learning Guidance"*- This allows the facilitator to enable student learning by such modalities as activities and discussion and provides a framework (rubric) that can help guide the structure of these modalities.

- *Elicit Performance (practice)*- This enables the students to practice what they have learned in order to help improve retention and knowledge transfer.

- *Provide Feedback*- This allows learners to receive feedback on their performance (practice, projects, groups, etc.). This helps learners identify and correct problems of learning.

- *Assess Performance*- This enables the instructor to show the learner the content areas where mastery is still pending. Quizzes, exams, Q&A, essays or interviews can be used with success in this event.

- *Enhance Retention and Transfer to the Job*- Utilizing this method enables the student to apply information learned from the course to a personal context or

experience. This enriches the learning process and helps to deepen the retention and learning.

Comparison of Dick and Carey Model with Gagne's Nine Events

There are some similarities of the Dick and Carey model and Gagne's model. First, they both utilize a logical approach to design of educational course. It could be argued that they are "systems-like" in this approach. Historically, Gagne's model predates that of Dick and Carey and has been said to have influenced their work.

Another similarity between the two is that each of the models contains separate and discrete components. These components, however, are not meant to be in isolation of each other, but rather are inter-related, and have influence over the other components in their model and on the overall success (or outcome) of the process.

A third similarity can be said to be the focus of the learner inherent in each model. Gagne's whole system is designed to be set around the learner and the tangible and intangible aspects of education as they relate to the learner. Dick and Carey's model, while systems-based in its approach, utilize the ideas of "design" and "conduct" in almost every step or component. These imply that the basis of said design or conducting (of evaluation) is based on the needs/responses of the learner.

While the models do share some similarity, there also exist some contrasts. Dick and Carey's model has been refined over the years in order to develop a true design process for educators. This systems approach works well with the concepts of DE and the challenges inherent in that type of educational offering. Its iterative processes, that are the backbone of its approach, help to ensure a design process capable of being fluid in its

formation or its successive forms for future classes. It could be argued that this promotes a basic "lessons-learned" format of program evaluation and change (if needed).

Gagne's model on the other hand, adheres more strictly to a linear type of algorithm or logic. Its components are not necessarily iterative in design (specifically so) but could be modified to be that way. His model, however, does center around the learner and their experiences in the learning process.

Personal Preferences

I believe that both of these models should be used together when designing a course for DE. In fact, I plan on utilizing these next summer when I have my own course to develop in my teaching job.

The strength of Dick and Carey's model as it relates to the systems-approach and iterative checks and balances makes it an ideal tool for a designer to use, especially a novice like myself. The learner-centered aspects of Gagne's model can be used as a yardstick or litmus of sorts in terms of measuring that the effort going in to design and construct the learning course is based on the premise that the learner is the focus of that teaching, not the teaching itself.