

## MCTE 628, Instructional Systems Design

### Portfolio #1-3: Chapter 3, Writing Objectives

- Exercise A: *Classify Behaviors According to Domain*  
Exercise B: *Classify Learning Outcomes According to Domains*  
Exercise C: *Identify Correctly Stated Learning Outcomes*

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### Portfolio #1-3: Chapter 3, *Writing Objectives*

#### Learning: An Internal Phenomenon

Perhaps the paramount qualifier pointed out in this chapter on objective writing is the lasting effect of our efforts as instructional designers. Few things in life are permanent, therefore it is very noticeable when something is pointed to as having a permanent effect. Seels and Glasgow point out that: "*Learning* is a relatively permanent change in attitude, behavior, or cognitive scheme due to experience. The goal of the instructional designer is to plan the experiences that will change current behavior or cognition to some new, as yet unlearned behavior or mental processing." (Seels & Glasgow, 1998, p. 57). It is my opinion that the learning ventures that have stayed with us over the years, are simply well learned topics that were presented by teachers who practiced successful forms of instructional design, probably without knowing the term. Each of us carries these changed behaviors as a product of either highly positive or negative, *embedded* (internalized) medals or battle scars of our own *experiences* in our learning path.

In my position as Media Center Director in the early-to-mid 90s, I established a small learning center and computer lab. During those years, and also the eleven years I've spent working with CBT and authoring issues, one of the most engaging things about my study of learning is that we ALL think about it in different ways. I believe this is because we all construct knowledge very individually — and internally. *Learning*, for me, is a very private endeavor. Our authors wisely point out that not all learning is a product of instruction, but that most learning happens without the additional structure of *deliberate* instruction. (p. 57).

Many times, in order to meet school standards or reduce the workload, the presentation of learning content is presented by means of a "by-rote" examination. This, to me, is almost the "checklist" manner of controlling content. The word *control* is fairly strong. I must admit that in many teaching situations, this use of a checklist may sometimes be useful and perhaps even necessary. By all means, we all have been exposed to the structure of knowledge presented in this manner. Although a checklist approach (and assessment) can clearly represent the content to be covered, can it truly represent REAL learning? Can a learner's successful (or lack of success in) performance of knowledge and skills really be made manifest in such a setting? From interacting with high school students in the computer lab, I don't believe this is the best way to approach instruction — or *learning*. In real life, we do not do things by checking things off, one by one. Most times, we hopefully adhere to a carefully planned list! But, it is a *flexible* list.

This, therefore, is my small metaphor to explain my thoughts on this chapter on writing objectives. Is a checklist needed for the *teacher* or for the *learner*? If excellent objectives are to be written, and if the goal is to help the learner to learn, then the ultimate checklist will not be one that mirrors rote and redundant bits of content — but objectives that

enhance and amplify ... the learner. In the ideal situation, the checklist is for the benefit of the learner AND of the teacher. This point-by-point method, therefore, demands the same level of importance for teacher or for student. What this shows, to me, is that learning is simply too complex to impute *simple* resolutions for teaching. What this means to each of us, as instructional designers, is that we join the effort to provide the simplest, yet most excellent avenues to *help the learner to learn*.

As we approach new projects, each situation will call for the writing of unique objectives. It is essential to remember that, while instruction is intended to provide the setting for learning, it does not *ever* provide the actual learning. This is because learning is done by each student. One of this chapter's strongest impressions was that the authors confirmed my above-mentioned belief that learning is "an internal phenomenon." Instruction, on the other hand, is a purely external event. (p. 57).

### **Defining "Learning" And Learning Outcomes**

My entire computing experience has been in the arena of the emerging technologies of hypermedia. This is due to an early concentration on multimedia, authoring, and graphics. For this reason, I can only compare our current studies with what I have learned within this field. In attempting to define "learning" or "learning systems," therefore, I must stay within the realm of my own knowledge. On special occasions, certain tools are placed in our pathway, that truly become "bibles" to live by. Their importance and usefulness never lose their magnitude. David Jonassen and Heinz Mandl, editors of Designing Hypermedia for Learning, present us with one such tool. Although now ten years old (copyright 1989), this book was ahead of its time and holds immense truths for designing instruction during the very end of this century. A decade after its writing, this book is more of a list of prophecies that have come to be — as well as a map for what is yet to come. All papers in the book's collection were from the 1989 proceedings of the NATO *Advanced Research Workshop on Designing Hypertext/Hypermedia for Learning*, which was held in Rottenburg/Neckar, Germany. The primary purpose of the workshop was to discuss and develop possible solutions to problems in designing hypermedia for learning. (Jonassen & Mandl, 1989, p. 4). In my own experience, it is impossible to show a dividing line between instructional design and hypermedia and its place in learning. We have reached a point where ALL learning is closely tied with the Internet, with ... hypermedia.

When we consider all aspects of learning, using today's standards, it is quickly obvious that *interactivity* and *dynamic control* are prevalent in modern instructional design. As we seek to begin projects by identifying and writing meaningful objectives, it is my belief that we must consider first, the collaborative nature of *New Media* and this *Information Age* in which we now live. One extremely valuable aspect of hypermedia in learning, is that it permits the user to govern the sequence in which she or he will access information. It is also possible to add or revise information so that it is more personally meaningful, which is important for settings of collaboration. The learners can also put together and structure their own knowledge base. What is significant is that the learner is meaningfully interacting with and controlling the information in a dynamic and powerful way. (p. 7).

For our studies and professional undertakings, it is essential to realize the change that has taken place in the past decade. The "by rote" learning experience just does not hold much validity or usefulness for today's learner. Hypermedia, unlike most information systems, places the learner in a situation where they *must* be mentally active while interacting with the information. This is a far cry from a typical "checklist" system, and ultimately will provide the most ideal learning setting ... for learners AND for teachers.

Our authors show us that, in order to design instruction, one needs to define *learning outcomes* in a very precise way. The goal of writing excellent objectives derives from this. Our objectives then perform three important functions:

- They guide the instructional design process
- They provide a framework for evaluation
- They guide the learner.

*(Seels & Glasgow, 1998, p. 59).*

Again, we (as learners, ourselves!) are counseled to *define!* Already, from our studies, it has been shown that there are many conceptions of learning. Jonassen and Mandl list the descriptive theories of learning, which include cognitive or information processing, the behavioral theories, the cybernetic theories, and others. For our purposes in designing instructional systems, learning is thought of in terms of tasks or learning outcomes such as those proposed by Gagné, Bloom, or Merrill. When designing for a hypermedia environment for learning, there are three learning processes that should be additionally considered: information seeking, knowledge acquisition, and problem solving. *(Jonassen & Mandl, 1989, pp. 8-9).*

In my research for this writing, this is the point where all things became very confusing. This, in part, was resolved when our textbook authors stated that, "While taxonomies share certain general characteristics, it is difficult to make comparisons between any two of them. No two learning theorists break learning down into the same number of categories or the same types of learning." *(Seels & Glasgow, 1998, p. 60).* It then became very clear that I was back at my initial assessment of the chapter, which was: learning is internal and individualized. The goal of the instructional designer is not only to present an architecture for individualizing the learning setting in order to help the learner, but must also select the most appropriate way of categorizing each specialized agenda. For once, the expectation is not in abject standardization, at all costs — but engineering the appropriate setting, based on individual needs. This, for me, solidified many concerns for how I will continue to meld my love of the (now) global information base, with the more limiting descriptions for "instructional design."

Perhaps we are in need of a name change: "Selective Learning Environment Design."











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