

# MCTE 628, Instructional Systems Design

## Portfolio #1-6: Chapter 6, *Evaluating ISD Decisions*

Exercise A: *Identify Who Should Conduct an Internal Review and When*

Exercise B: *Help in Planning Prototypes*

Exercise C: *Help in Recognizing Appropriate and Inappropriate Tryout Practices*

by Leanne C. Boyd



### Evaluating Decisions: The Times, They Are a'Changing

We have been presented, by authors Seels and Glasgow, a comprehensive guide to the almost daunting task of evaluating the ISD decisions that we — and others — make. This chapter, "Evaluating ISD Decisions," dealt much with the processes of evaluating the outcomes of our hard work. Surprising to me, they also got down to discussing in some detail how ISD processes relate to the plethora of new choices — new media — that we now have for constructing learning environments. In discussing appropriate methods for review and assessment, our book gives quite a lengthy overview of multimedia as it pertains to the instructional design processes.

For most of my experience in ID projects, this has been the setting ... there has always been the necessity to base review of the projects around a well-developed prototype and at least *one* form of tryouts, either tutorials, small groups or large groups. I believe that in this era of the increasing use of Web-Based Training (WBT), for instance, there will be increased use of this type of evaluation. I also believe that the key element is described in some detail in our readings: *delivery system requirements*. The authors continue in stating, however, that "the medium used during the tryout will depend on what is available and economically feasible." (*Seels & Glasgow, 1998, p. 153*). From my experiences with ID development with USWest and Metropolitan State College of Denver (math software for 4<sup>th</sup>-graders, Web and CD-ROM delivery), as well as a Web-based, task-oriented technical manual for Lucent Technologies, the initial decision for what is "available and economically feasible" is NOT determined at the prototype stage. Rather, this is established in early design phases, and is simply utilized as the system of choice, both in the development stages and the evaluation stages of the product.

It has been my opinion, throughout our readings, and in my summaries, that our text mirrors instructional design precepts that have been altered over the year-plus since publication. Delivery system requirements play a hugely increased part in today's instructional design. We can no longer afford to rely on only traditional delivery systems. Especially at the university level, adult audiences want "more efficient, practice-oriented, customized, and individualized curricula." (*Gantt, 1998*). I would add to that, that today's children have been weaned on powerful delivery systems, from cable television to highly

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technical games. Ever-increasingly, statistics show that there is a preference for entertainment via the computer vs. the television. This high level of technological prowess in children has been unknown in previous generations.



### **Dream the Dream: Who Should Perform the Analysis?**

Our book states that "outputs of each phase of the ISD process are reviewed for accuracy and adequacy by SMEs, the client, media specialists, end users, and other instructional designers working on the project. The purpose of these internal reviews depends on what is being reviewed and who is doing the interviewing." (*Seels & Glasgow, 1998, p. 146*). After re-reading this statement many times, I decided that it disturbed me for the very reason I've just discussed: it *vaguely* hints at the highly technical group of experts who will perform assessment, yet it does NOT address the real purposes of the evaluation. For me, this is almost a universal statement of the education process that I have been subjected to, over several decades in our educational systems! Many times, the end product of traditional instructional design has seemed to me to be a collection of predefined goals that are set in a structure of *directed learning*. The end result (which I often call "drill and kill") leaves the learner high and dry, having learned little or nothing — and it leaves the teacher or administrator high and dry, as oftentimes, there is little to really assess.

We have entered an era which, because of new, tremendous TOOLS, there is a unprecedented *challenge* to the evaluation of learning. Previously, evaluation was based mostly on predefined goals (self-limited to directed learning). We now have much richer choices. As instructional designers, we must take on the new challenges! Our new technologies present us with a chance to approach instruction, and its evaluation, based on more constructionist views of learning. New models, through careful evaluation and revision, will provide rich environments where learners will actually *construct their own knowledge*.

As this begins to be more common, it's easy to see that methods of analysis and review will also change — as dramatically as the new learning settings are changing. Some designers already see that technology is one way to implement such new environments. "If learners are allowed or encouraged to determine their own learning goals, then evaluation of their learning must be based on those individual goals." (*Jonassen & Mandl: Marchionini, 1989, p. 359*). This, in my opinion, drastically changes the actual analysis setting presented by Seels and Glasgow, into a *new breed of evaluation*.

Emerging media — highly interactive media — now challenges the evaluation of instructional products and the learning that happens with the use of those products. Hypermedia provides learners with access to vast and varied content, and a control over the process of learning. Students are given the potential for collaboration with both the delivery system and with other people. The use of strict, predefined goals is no longer in

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keeping with the goals of modern learners. This empowerment of learners compels the evaluator to assume a much more broad-based set of techniques and standards. Only this modification to the evaluation process will accommodate self-directed learning! (*p. 368*). This, I believe, was the missing element in our authors' description of outputs and the review process. Based on technologies and systems of more than a year ago, our textbook is limited in assessing what is true, given today's dramatic technological change.

The final assessor of the product will be ... the learner. For all the interim analyzing agents, whether SMEs, teachers, or administrators, the last determinant for product success will be the user who uses the tool.



### **Talk the Talk: Describing A Time Line For Analysis**

Strongly, I believe that the analysis described in our book should be performed as an ongoing structure in all phases of design. Actual implementation of the tool, as it is developed, is crucial to the final success of the product. After all, the purpose of evaluation in these formative stages is to appraise the capacities and deficiencies of instruction so that the materials can be revised. This is how we are certain (or reasonably so) that objectives are met. (*Northrup, 1995, as cited in Seels & Glasgow, 1998, p. 149*).

At this point, it is interesting to begin pondering just how this elevated form of structuring advanced systems — let alone evaluating it — is to be performed. Up to this point, the delivery systems themselves, have been the restraining factors! Very recently, that has changed radically — and it has forever changed our position, as evaluators. Multimedia, to some, represents the most immense revolution in education and communication since the printing press was invented. Yet, our book touches on the changes that are coming. Computer technology has retailored our capacity for managing information. Computing has *shortened the distance* between people and information. (*Gantt, 1998*). I don't see how the message can be made any clearer. The systems have changed. The rules have changed. We, as authors of new learning environments, must also change the way we interpret the concepts, construct the products, and analyze the successes and failures of our creations.

After a year and one-half at Nova Southeastern, this very issue is perhaps one of the most difficult of all learning events for my peers and myself. Coming to terms with the rapidity of change within our own learning environment produces a level of anticipation or even fear. In this particular course of Instructional Design Systems, this is replaced with an insistent knowledge and true concern for our position as deliverers of learning to an upcoming group. Our products must be more carefully designed, analyzed and executed, than ever before. We are faced with the fact that the goals and objectives are perhaps more difficult to state and measure. We now deal with decisions concerning design being approached by methods where learning will be based on learner-determined goals and encounters. (*Jonassen & Mandl: Marchionini, 1989, p. 359*).

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Whatever else is determined, the evaluation of students interacting with instructional environments *must* still be conducted. One thing remains true in my mind; that is, wherever it can be done, evaluations should connect instructor-designated goals to the outcomes. In the currently unknown arenas of new technologies that will create yet-unanticipated cases, we will HAVE TO take on the challenges of assessing both the *process* and the *products* of learning that will be consistent with goals set by the 21<sup>st</sup> century learner. (p. 359). To this end, I truthfully believe that each project will carry a heavy incentive to approach analysis at each and every step of the product. cursory attempts at review will undoubtedly produce failure.



### **Walk the Walk: Implementing Tools Of Analysis**

If there is anything that we, as Nova students, are learning, it is that graduates will be expected to deal with rapid change! We have a unique stance in this quest for appropriate evaluation of learning environments. We will eventually be called upon to emulate not only what we are learning, but also the very environment in which we are learning it! That seems to be the underlying theory of Computing Technology in Education.

For now, in 1999, at Nova Southeastern, we seem to be acquiring the appropriate knowledge and "transformative skills" for purposes of transferring new media skills to our upcoming "charges." We are gaining some training for cooperating in interdisciplinary projects. I feel that we are active participants in the evolution of the teaching and learning at THIS particular university. Dr. Fornshell has given us particular permission to be a part of the "dream team." But, Nova is rather unique! We are learning unrivaled dimensions for new systems and new products, and how to develop and improve this environment. We will take these concepts into future careers. We will hopefully elevate *other* systems of design and evaluation, in keeping with our present discoveries.



### **Conclusion**

THIS university has seen the need for redefining its mission. I feel that the addition of the MCTE 628 course to the SCIS curriculum carries this to the student level, where learning evaluation processes will cause each of us to redefine our own missions back in our own communities. The evaluation process of learning systems at Nova appears to be frequently evaluated. Hopefully, each of us will carry that out of Nova, in our own skill sets. As students, we sometimes see, first-hand, the effects of prototypes that have further need of evaluation and revision! We are part of the evaluation team.

The comparison I am making is that each project we, as designers, take on, ultimately will be just a portion of a *larger* learning system — which also must be evaluated. As we

train in modes of analysis for learning, we must also renew our ways of dealing with the expectations of both society and students. Because of all the rapid changes, the one deep concern is whether the learning community (the university or the private sector) will be willing and prepared to take on the challenges. (*EAIR Forum Theme*, 1999). A 21st-century trainer cannot afford to refuse to embrace computer technology that merges innovative instruction and Promethean multimedia approaches!

The greatest knowledge we can take out of here is that the challenges of evaluation and revision are fundamental skills for the next century. The times, indeed, are changing.



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