

In Search of the Elusive *ADDIE* Model

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As a professor of instructional technology and as a participant in discussion forums on instructional design (ID), one of the most frequently asked questions is “what is the original source for the ADDIE Model?” Students, fellow professors, and practicing professionals are often interested in finding an authoritative source to cite in papers and to provide to clients. Practitioners tend to be curious about the pedigree of the term: is it from academia? Business? Military?

I was curious, too, but not motivated to go beyond a cursory search until I was invited by the editor of a forthcoming encyclopedia (Kovalchick & Dawson, in press) to write an entry for The ADDIE Model. Now it was personal.

The most obvious place to start such a search is in the existing dictionaries and encyclopedias of instructional technology, education, and training. ADDIE does not appear in any of them. Next, the large (Saettler, 1990) and small (Reiser, 2001, Shrock, 1995) histories of instructional technology and ID. Again, not a single mention. Next, the textbooks on ID (Morrison, Ross & Kemp, 2001; Gentry, 1994; Dick, Carey & Carey, 2001; Smith & Ragan, 1999; Heinich, Molenda, Russell & Smaldino, 2002). ADDIE is not mentioned in any of them, neither older nor more recent editions. How about the surveys of ID models (Andrews & Goodson, 1980; Gustafson, 1994; Gustafson & Branch, 1997, Gustafson & Branch, 2002)? Again, ADDIE is invisible.

By this point I was beginning to form the theory that ADDIE existed more as a label than as an actual ID model. To try to falsify this theory I contacted about twenty people including professors and practitioners who I thought would be knowledgeable in this area, especially those whose institutional memory goes back to the 1960s. Their responses indicated that they did not know of any original, primary source. When asked if they could remember when they first heard the term, the typical response was “around the late 1980s.” Some suggested leads or sources that *might* be early references, so I tracked down each of the leads, which are reported later in this article. Again, none of the sources mentioned could truly be said to be a source of the ADDIE Model. I interviewed some of the authors cited as possible early references and they all said “No, I didn’t invent ADDIE and I don’t know who did.” Actually, three of them said, “No, I didn’t invent ADDIE; I thought *you* did!”

I am satisfied at this point to conclude that *the ADDIE Model* is merely a colloquial term used to describe a systematic approach to instructional development, virtually synonymous with instructional systems development (ISD). The label seems not to have a single author, but rather to have evolved informally through oral tradition. There is no original, fully elaborated model, just an umbrella term that refers to a family of models that share a common underlying structure.

What everyone agrees on is that ADDIE is an acronym referring to the major processes that comprise the generic ISD process: Analysis, Design, Development, Implementation, and Evaluation. Beyond that, I think there is a widely shared understanding that when used in ISD models, these processes are considered to be sequential but also iterative, as depicted in Figure 1. But any claims about *what The ADDIE Model says* beyond this are inventions of the author.

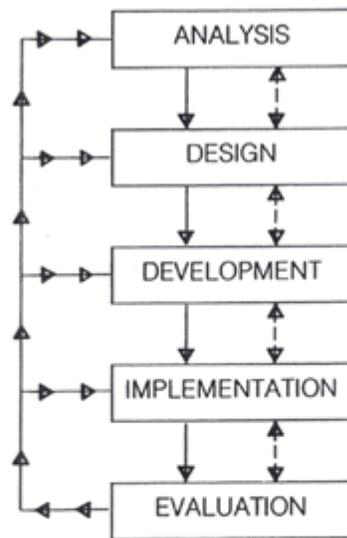


Figure 1. An ISD Model featuring the ADDIE processes

Source: Grafinger, Deborah J. 1988. *Basics of Instructional Systems Development*. INFO-LINE Issue 8803. Alexandria, VA: American Society for Training and Development.

The origin of the *label* itself is obscure, but the underlying concepts of ISD can be traced to the model developed for the United States armed forces in the mid-1970s. As Branson (1978) recounts, the Center for Educational Technology at Florida State University worked with a branch of the U.S. Army to develop a model, which evolved into the Interservice Procedures for Instructional Systems Development (IPISD), intended for the Army, Navy, Air Force, and Marine Corps. Branson provides a graphic overview of the IPISD (p. 13), which shows five top-level headings: Analyze Design, Develop, Implement, and Control. This model is referenced in virtually all subsequent historical reviews of instructional development, but, notably, users do not refer to it by the *ADDIC* acronym. The authors and users refer only to IPISD; hence it is clearly not the source of the ADDIE acronym either.

The underlying concepts of the IPISD model can be found in an earlier handbook by Leslie Briggs (1970), who also was affiliated with Florida State University. Briggs's model (p. 7) incorporates ideas similar to the IPISD model, but without the *ADDIC* headings. And, of course, there are many other tributaries leading to the main stream of ISD.

Although Thiagarajan (1976) has been mentioned as a possible source of the ADDIE label, this does not pan out because the article only refers once to "the basic systems approach A-D-E model" (p. 10), not *ADDIE*, nor does he provide a visual or verbal model as such.

The ADDIE terms and concepts appear in a figure in a how-to monograph distributed by American Society for Training and Development (ASTD) on basics of instructional systems development (Grafinger 1988), as shown in Figure 1, but nowhere in the monograph is the acronym ADDIE itself given. It is consistently referred to as the ISD model in Grafinger. Similarly, Rossett (1987) includes a figure showing an ISD model in which the top-level boxes are labeled with the five ADDIE terms, but the caption says "what happens during ISD."

A Web search engine search will turn up numerous hits on the term *ADDIE*, but clearly none of these sources is close to an original, primary source. One prominent Web source is *Big Dog's ISD Page* (Clark, 1995). Clark's treatment is similar to many other Web sources: as with Grafinger and Rossett, he provides a visual model incorporating the *ADDIE* terms, but refers to it as "the ISD model."

One of the few explicit and extensive narrative references to the *ADDIE* Model in the academic literature of the field is found in Molenda, Pershing & Reigeluth (1996). This chapter was an attempt to capture the current consensus regarding the characteristics of the systems approach to ID. We chose the term *ADDIE* as an umbrella term for ISD models because that's the term we heard most often in oral discussions of the topic. We did not refer back to any original, primary source nor did we fancy that we were inventing a new concept. In fact, we intentionally pushed the *ADDIE* concept into a new application. The second half of the chapter is an attempt to present a model that illustrates the interconnections between the development of instructional interventions and the development of performance improvement interventions. That is, we claim that performance interventions, such as incentive programs, job redesigns, electronic performance support systems, and ergonomic overhauls, and the like, themselves are or should be created through a process involving Analysis, Design, Development, Implementation, and Evaluation. A full explication of this model is given in Molenda & Pershing (2003).

The *ADDIE* Model is also used as a major organizing principle in Gustafson & Branch (2002), another chapter intending to represent the current conventional wisdom about ID. But Gustafson & Branch do not provide any citation for their references to *ADDIE* either.

What is emerging in the recent literature is a tendency to accept the *ADDIE* term as an umbrella term, and then to go on to elaborate more fully fleshed out models and narrative descriptions. However, it should be recognized that authors who do this are essentially creating and disseminating *their own* models as there does not appear to be an original, authoritative version of *the ADDIE model* to be revealed and interpreted. Unfortunately for the sake of academic rigor, there is no real or authentic meaning for the term. Anyone is free to impute whatever attributes they want to this label...as they do.

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