

# LEAVING ADDIE FOR SAM

An Agile Model for  
Developing the Best  
Learning Experiences



**MICHAEL ALLEN**  
with Richard Sites

# PREFACE

*Leave ADDIE, you say? And why would I do that?*

If this is your question, I'm quite inclined to say you should stick with ADDIE. I'm very supportive of any process that reliably and efficiently produces desired results. If ADDIE does this for you, then you're a fortunate person. You have your tool, your comfort zone, your success, and I do sincerely congratulate you.

I mean it.

I used to use and teach the ADDIE process, or what I considered something of *the standard* ADDIE process. I taught it with assurance and conviction. The ADDIE process of analysis, design, development, implementation, and evaluation is logical, thoughtful, and comprehensive. There's little in the process one can argue with in terms of relevance and importance.

Did it work?

Well, yes and no. As I'll describe in a moment, I witnessed its use in a variety of settings over a great many projects. It produced products, yes. It gave managers an understandable process that appeared quite manageable. It had measures of progress threaded through it, yielding status data to report. There's a lot to like about it from a managerial point of view. It's definitely left-brained—comforting to the concrete thinker.

But did it produce good learning products? Did teams feel productive? Were they proud of their work? I have to say no, not so often in what I've seen.



My career in instructional product development began with a PhD in educational psychology. I had the uncanny good fortune of meandering through rare opportunities to learn from putting instructional theories and knowledge about human learning to work. Even in my graduate program, I had a unique opportunity to work with a newly built National Science Foundation center designed to demonstrate and validate the latest in instructional approaches and technology. Working with the center I had a chance to experiment and ultimately develop the means to guide learners individually, to help them discover their personal learning styles, to continually measure and fortify their growing confidence, and to prepare them for success.

I also received grant support from the psychology department to investigate uses of technology to help unwieldy numbers of freshman psychology students work at an individualized pace toward mastery of the subject. Then, with support from IBM, I developed software to analyze student progress and validate which instructional paradigms were most effective with particular learning styles and to measure assessment validity. After I was graduated from the PhD program, the university put me in a rare and wonderful position—teaching faculty members the means of offering better learning experiences to their students.

Later, with an offer no one could refuse, I went to work with Control Data's PLATO project to develop computer-assisted learning for Control Data Institute enrollees. As Control Data's work with PLATO grew and our staff expanded from a couple dozen to hundreds, everyone's work became more specialized. Becoming director of research and development, a position I held for a decade, I focused primarily on two areas: research on human learning and tools for curriculum development/management. A group separate from mine was formed solely for courseware production.

In my current company, formed after developing Authorware, taking it to market, and combining with Macromind/Paracomp to form Macromedia, we have built custom learning solution studios on both U.S. coasts and in the Midwest. For more than 18 years we have produced huge volumes of instructional products, including instructor-led courses, e-learning, and blended programs. The work of our studios has our lobby proudly overflowing with awards and superlative commendations.



The point of this embarrassing reminiscence? I've had an opportunity to design, build, manage, and observe the production of an extraordinary number of instructional products: education and training, large budget and small, complex and simple, technology and no

technology, successful and not. My hope in setting fingers to keyboard and mouse here is to channel greater success from the tremendous effort that goes into each and every instructional product.

At Control Data, where a huge courseware production organization was built, a cornerstone project was undertaken. It was the development of a curriculum to teach effective courseware design and development—essentially the ADDIE of analysis, design, development, implementation, and evaluation. While I'd like to digress into a discussion of the irony of how this ill-fated undertaking struggled painfully to launch an instructionally viable and useful product, I will state only that after missing deadline after deadline, repeatedly exceeding budget, and producing power struggles with career-threatening tensions, it started my questioning of ADDIE. As far as I can recall, very few—if any—of the participants in this project were proud of the product produced and wished to claim credit for it. If even the ADDIE experts couldn't use ADDIE to teach ADDIE, something was amiss.

As with the majority of ADDIE projects, a product did emerge. ADDIE is pretty good at assuring something will emerge. The product went through at least several major revisions after its introduction, so I don't believe it is unfair to assess the project as more of a valiant effort than a stunning success. This shouldn't have been the case, and I hope, dear reader, it won't be yours.



Good instruction is inspirational. It captures both the power of knowledge and skill as well as the joy of becoming competent. Good learning experiences aren't just about facts, they are about becoming a more proficient, capable, and valuable person. To my taste, ADDIE—a process that comprises many valuable tasks—fails to recognize the necessary creativeness and inventiveness of the work, to allow for and support exploration and changing ideas that need to arise within and as part of the process.

A good and wise friend advised me many years ago when I was designing and building an authoring system for PLATO: "It's too early to build a tool until you've defined the process it is intended to support," he said. This fine advice led me to seriously question ADDIE, especially in the wake of the products I saw it producing and the tension people felt using it. This questioning ultimately led me to advice of my own. *It's too early to define a process unless you've defined the product you want it to produce.* The starting place is to decide what we want in our instructional products.



Meaningful, memorable, and motivational. Many readers will know I had to say it sooner or later, as these are the characteristics I feel are imperative for the success of instructional events. Lacking any of these three, an instructional experience fails to be what it should and needs to be. Today, this seems like a certainty to me (although I strongly endorsed ADDIE years ago, too, so we need to be careful). But, yes, I shout it out at every chance. Meaningful, memorable, motivational. The big three Ms.

Knowing that the destination is the big three Ms, we can tailor a process that pushes in the right direction. It's in the pursuit of just such a process that Successive Approximation was born.



This is not a book about instructional design—at least it wasn't intended to be. Because product and process are so closely interdependent, it was impossible to write all that needed to be shared without overlapping into topics of instructional design more than once. I admit that I wrote and removed many segments in which I couldn't avoid delving into instructional design. I had to write them for my own satisfaction. But then as they seemed too preachy and muddying, I pulled them. Indeed, I've written about instructional design to the best of my ability many other places, and for those interested in my opinions, they aren't hard to find.

But even with such attempts at considerate weeding, it's not all gone. I can't help but remind us all, over and over again, that instruction isn't primarily about presenting information. And learning isn't primarily about knowing things. The goal is always about performance. *What can people do with their new knowledge? What skills are necessary for success?* One never succeeds without doing something. Deciding not to do something is, of course, making the decision not to—and thus *is* doing something, the something one might have learned was appropriate. Follow? Even in academia, we want our students to be good problem solvers and good conversationalists. We want them to realize when the knowledge they have is applicable, and we want them to apply it successfully. It's about doing things.

So I hope you will tolerate my occasional lapses into topics of instructional design. I believe they are relevant to understanding why characteristics of the successive approximation model (SAM) are important. I hope also that you will forgive my tendency to focus on e-learning. e-Learning products tend to fly solo—to stand more on their own unaided by a sympathetic and charismatic instructor who can fill in the gaps, provide instant explanations and remediation, and motivate those who need to keep focused and energized. If the product doesn't do it, it won't get done.