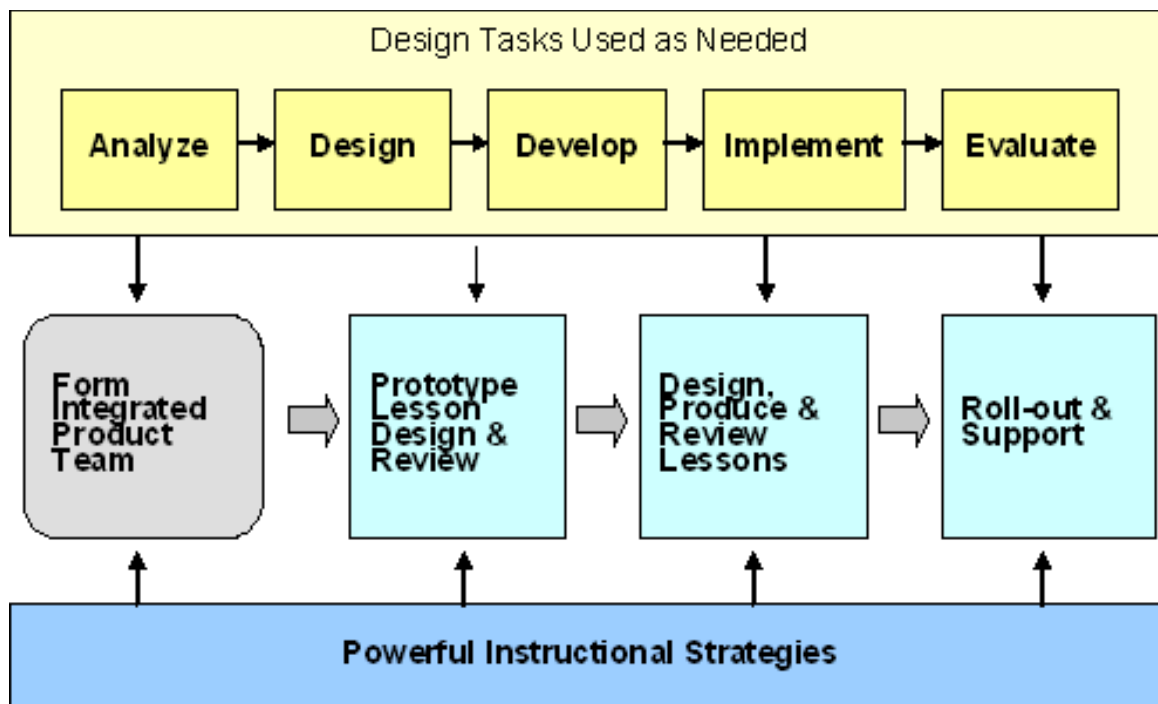


INSTRUCTIONAL DESIGN

Kurt Rowley, PhD & Associates can provide a variety of instructional design services including project management, consulting, conducting analysis, writing design documents, or developing an entire project. Generally we outsource media and graphics development, but we can also work with internal providers of clients. With experience in all aspects of courseware design Dr. Rowley can also manage large-scale educational software development programs. His specialty is creative instructional strategies, using stories and interactive interfaces to engage and motivate the learner.

Rapid Prototyping Process

We utilize a rapid prototyping process for our instructional design projects. This process is derived from our research into instructional design methods used by expert designers (Rowley, 2005). The method is also consistent with our experience designing training systems.



A standard ADDIE type process forms the basis for the method. All instructional design projects are conducted with an integrated product team. A prototype first lesson is generated based on the use of an ADDIE design process. After prototype review individual lessons are designed, produced and reviewed. We utilize a group of powerful instructional strategies with all of our course design projects. We know how to make these strategies work to create an effective course. These strategies include story-based training, simulations, adaptive training systems, standard linear web-based presentations, apprenticeship methods, case-based training, and others.

Reference:

Rowley, K. (2005). Inquiry into practices of expert courseware designers. *Journal of Educational Computing Research*, 33(4), 419-449.

Past Projects

The following are descriptions and demonstration links to training products for which Dr. Rowley was the senior instructional designer. The descriptions are ordered chronologically by project dates.

Courseware: Writing Skills

Computer Tutor for Writers. The client was the U.S. Air Force Research Laboratory, Human Effectiveness Directorate, Intelligent Training branch, Brooks AFB, Texas. The purpose of the course was to utilize military expertise in 'intelligent tutoring system' technology to assist with fundamental skills training. Approximately 16 hours of instruction were developed targeting writing process skills and knowledge. The courseware used an innovative procedural facilitation strategy and included a unique writing process support tool. Several thousand high school students used the tutor, and the Department of Labor adopted the product for remedial writing skills training as part of G.E.D. test preparation (Job Corps). Currently marketed to High Schools by Apangea, Pittsburgh.

Role. Lead instructional designer and director of research team, designed the courseware strategy using a procedural facilitation approach (1995-1998). Also conducted a year-long study of the effectiveness of the courseware. The courseware produced gains equivalent to one letter grade above control groups receiving only classroom instruction. This is an unusually positive result for writing instruction.

Click on the screen graphic below to View a demo of the Computer Tutor for Writers (Called 'Maestro', requires MS Internet Explorer compatible browser).



[View slides presented at a meeting](#) about the tutor sponsored by Carnegie Mellon University.

A year-long study sponsored by Air Force Research Laboratory established the effectiveness of the tutor. An [article in the Journal of Educational Computing Research](#) presents the results of this study.

The software from this study was converted into a Web-based application, and marketed.

Courseware: Professional

Intermediate Systems Acquisition Course (ISAC). The client was The Defense Acquisition University, Ft. Belvoir, Virginia (as a subcontractor to MTC). ISAC was an 80 hour certification course for Defense Acquisition professionals. The purpose of this survey course was to introduce Acquisition professionals to basic acquisition processes, including details about eleven different functional areas involved in defense acquisitions. ISAC is currently used by multiple DoD colleges. Over 20,000 students have taken the course, with an additional 5,000 per year added to that number.

Role. Lead/senior instructional designer, designed overall course strategy using a story-based approach. Also designed numerous animated Flash-based lessons and the overall classroom component for this blended training product (1999-2001). Client and students responded very positively to the course. Wrote and published a [case study](#) of the course.

The ISAC course was developed by MTC Technologies. Kurt served as a subcontractor, as the principal instructional designer.



A demo of a few ISAC lessons is available. Click on the course graphic. IMPORTANT -

When the course opens, you may view the Introduction, and lessons 1.2, 4.2, and 6.3. These are the **only** lessons that are active in the demo. The introductory lesson describes the instructional approach and how to use the interface.

Performance Support System

Courseware Designer Support Tool (CDST) included 24 lessons on how to design courseware, 120 instructional design job-aids (worksheets), an advisor system and a rapid prototyping tool for use to test out courseware designs. This product is targeted at instructors, subject-matter experts and developers. The product is also targeted at entry-level instructional designers. The purpose of the product is to provide support for instructional design activities. In particular the product was designed to train and support military personnel without instructional design training who are tasked to design computer-based training (e-learning, courseware, web-based training, etc.).

Role. Worked as the primary instructional designer and programmer, also managed the product development team (2002 - 2004).



Click on the screen graphic to view the product page for the CDST. Kurt was the principle instructional designer, as well as the project and business manager.



Click on the screen graphic to view a sample training module included with the CDST that was created using Flash. The module teaches Naval Watch Officer security.