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MULTIMEDIA SIMULATION CUTS TRAINING COSTS FOR ANDERSEN CONSULTING

Edward F. Smith, Courseware/Andersen Consulting
Sandra S. Hardaker, Courseware/Andersen Consulting

ABSTRACT

Andersen Consulting, the systems integration and business process reengineering unit of the Arthur Andersen Worldwide Organization, cuts costs and trains new consultants in basic business practices with a CD-ROM-based interactive multimedia course that simulates a real-world client engagement. The new consultant's mission is to analyze a case company's various business departments and prepare a presentation documenting potential problems and remedies. The course utilizes three hours of digitized video and audio to enable students to interact with client personnel and their Andersen Consulting supervisors. Performance-based activities require students to demonstrate their understanding of the simulated client's business functions and needs. Multiple support systems assist the new consultant by mimicking real world organizational support. In addition, students receive feedback to help them complete activities and evaluate their performance. Benefits of this multimedia simulation include a 50 percent reduction in training time, payroll savings of $2 million, delivery savings of $8.5 million a year and a reduction in travel costs since the course can be taken at local offices. This course received the 1992 Silver CINDY Award.

BUSINESS NEED

The Arthur Andersen Worldwide Organization commits big to training. Each employee spends 320 hours in classroom training where role-playing, case studies, and collegial dialogue help them sharpen their business and consulting skills. This is in addition to another 450 hours spent in self-study programs. This totals 6.5 million student training hours each year. With 60,000 employees in 300 offices in 70 countries, the training expenditure tops $180 million a year.

Most classroom training is conducted at the organization-owned and operated Center for Professional Education, west of Chicago. This campus-like facility can house 1,900 students a night and operates close to capacity. Employees worldwide come to the campus every 1 2 to 18 months throughout their careers to hone their business, technology, and consulting skills.

New hires, usually fresh from college, typically spend three weeks at the Center shortly after joining the organization learning Andersen Consulting methodology. They often return several times during their first year or two for three to five-day courses that enhance their business acumen. In addition, new consultants devote a significant number of hours to self-study at their offices.

With an annual growth rate of 1 5 percent. Andersen Consulting is looking for ways to streamline training and reduce costs.

SOLUTION

One solution is to leverage the technology and approaches Andersen Consulting uses with their clients for their own advantage internally. This means shifting to highly interactive, computer-based training that simulates the environment of a client engagement. This allows the firm to synchronize business and training strategies to reduce the time and cost of centralized training in Chicago. To test the efficacy of this approach, the Center for Professional Education converted the entire Business Practices Course (BPC) to interactive multimedia. BPC is one of the initial courses attended by new hires.

BPC uses three hours of Digital Video Interactive (DVI)-based audio and video segments stored on CD-ROM to simulate a client engagement at a representative case company. The student's mission is to analyze the case company's 1 4 different departments (represented as 1 4 modules), such as Product Development. Human Resources Management, Management Planning. Inventory and Production, and Cash Accounting to learn basic business functions. The interactive design enables students to conduct interviews with client personnel, receive phone calls, review memos from Andersen Consulting supervisors, and attend meetings with the client's management.

There are one to three performance-based activities for students to complete in each module. The course provides continuous feedback to help students complete the activities and evaluate their performance. To further simulate actual client engagements, the course allows for multiple solutions to most activities but requires that students prepare and deliver a final formal presentation regarding their findings.

BENEFITS

The new BPC multimedia simulation takes students 38 to 45 hours to complete, compared to the previous course requirement of 60 hours of self-study followed by 40 hours of classroom training. This is more than a 50 percent reduction in training time. More than 3000 Andersen Consulting employees worldwide are expected to complete BPC each year in their offices. The cost savings to the firm is $10.5 million annually -- $8.5 million in delivery savings and $2 million for payroll plus travel cost savings.

In addition, Andersen Consulting is assured of consistent delivery of BPC and is better able to assess student's overall achievement. There has also been a non-monetary payback -- affirmation of the firm's commitment to its strategic technology focus.

SIMULATION DESIGN

The Center for Professional Education worked in cooperation with Northwestern University's Institute for the Learning Sciences to design a highly interactive and intuitive human computer interface with multiple levels of support systems and navigational tools.

There are six sources of learner support:

- Content Database
- Tutorials
- Feedback
- Digital Video Interactive (DVI)
- Working Papers
- Button Palette

The Content Database provides students with detailed information on any subject related to the business functions or technical skills that are presented. The information in the database is not specific to the case study so it can be used as an ongoing reference.

Tutorials can be accessed at any time during the course. They provide information about how to work through each of the modules and complete the activities.

BPC provides continuous feedback all through the course to help students complete activities and evaluate their performance. Most activities provide three levels of feedback from general to directive. Solutions are not provided, however.

DVI adds a new dimension of interaction to course activities. Students can choose various video segments for the information they need to complete activities. The video provides opportunities for students to interview personnel at the client company as well as obtain expert advice from various Andersen Consulting colleagues.

Working Papers provide learners with a "To Do" list of activities to perform within each module. This simulates a process that takes place on actual client engagements where consultant's record data and problems encountered. At the end of a BPC module, students have a summary of what they learned about the case company lust as they have on a real engagement.

The standardized button palette is available along the side of each screen to provide access to content-specific support as well as navigational tools.

TECHNOLOGY

BPC requires an IBM-compatible PC with 80836DX processor, color VGA monitor, internal or external CD-ROM player, Intel ActionMedia II video board, Microsoft mouse, external audio amplifier, and headphones.

BPC was developed using *Authorware Professional for Windows, Sinai/talk,* and *"C."*

BIOGRAPHIES

Edward F. Smith is a senior manager for Andersen Consulting's Change Management Services (CMS) practice in San Diego. He earned an MS and Specialist of Education in Education/Instructional Systems Technology, and a BS in Business Administration/Management. Ed is experienced in all phases of interactive multimedia design, production, and management. Since 1980, he has worked extensively in adapting linear video and classroom training approaches to the special needs of interactive multimedia instruction. He directs key marketing and client development efforts for Andersen Consulting in strategic markets focusing on consumer products companies and computer manufacturers.

Sandra S. Hardaker is an experienced senior with Andersen Consulting's CMS practice in San Diego. She has a Ph.D. in Human Behavior and an MS in Foods/Nutrition and Instructional Systems Design. Sandy has experience in all phases of project management and design for interactive multimedia training. Her industry experience includes projects in network systems, automotive, food service, and retail industries.

Courseware, a leading developer of customized instructional systems since 1972, became part of Andersen Consulting's Change Management Services practice in 1989. Headquartered in San Diego, California, Courseware is widely known for its innovative consultation and training development services that enhance productivity and performance in the workplace. Courseware researches, designs, develops, implements, and evaluates custom-tailored instructional systems. These systems use proven instructional techniques and diverse delivery technologies ranging from traditional classroom instruction to computer-based training, and interactive multimedia.