

Matrix helps designers balance program time and cost

Predicting the time and staff required to design training courses is a complex and constant challenge for training executives. **Paul Anderson**, director of Carlson Companies' executive development center, Minneapolis, developed a matrix four years ago that he says turns the "art" into a nearly precise science.

Anderson says the matrix helps him make staffing and budgeting decisions and serves as a reality check for overzealous managers who are looking for training to solve their problems "yesterday," and overeager trainers who tend to put too much on their training plates.

Based on more than 20 years of internal research at the firms for which he's worked and on data he collected earning his master's degree in curriculum design and learning programs, Anderson says the matrix (see graphic) provides a starting point for determining the ratio of internal staff hours required for each hour of curriculum designed. "Certainly the numbers may vary from company to company," he says, "but I think the variance would be slight."

Defining the Matrix

The design process alternatives (horizontal heading) describe three groups normally used to produce training: an internal staff working alone, an internal staff working closely with consultants or subject-matter experts, and outside consultants or off-the-shelf packages.

Anderson says the complexity of curriculum (vertical heading) is perhaps the most empirically based element of the matrix. He offers these explanations:

✍ The first category, he says, describes a classroom environment that uses a tremendous amount of integrated curriculum—computer simulations, use of multimedia such as slides and video, complex skills practices, etc. Less than 3 percent of programs offered, Anderson says, truly fit into this category.

✍ The second category deals with "curriculum that addresses the hard skills of running and controlling business, but also with the soft skills of

Training Center Design Hours - Program Benchmarks
Center staff hours as a ratio to each hour of curriculum to be designed:

Complexity of Curriculum	Design Process Alternatives		
	Developed Internally	Co-Developed: Developed Internally w/Consultants	Consultant (off-the-shelf prep for first offer)
Multimedia Complex Curriculum Senior Skills	120:1	20:1	5:1
Advanced Skills/High Potential	80:1	10:1	3:1
Professional/Management	40:1	5:1	2:1
Train-the-Trainer	20:1	4:1	2:1
Basic Skills	8:1	2:1	1:1

managing with and through people," he says.

✍ The third looks at more traditional, yet still complex, types of programs for professional development. Course topics such as finance for the nonfinancial manager, and sophisticated presentation and project management skills are found here.

✍ The final two categories—train-the-trainer and basic skills courses—are fairly self-explanatory, Anderson says, but still need to be figured into the equation.

Not surprisingly, as the complexity of curriculum decreases and more outside resources are utilized, the number of preparation hours for the in-house staff members involved goes down.

A Tool to Negotiate Reality

Anderson says he has found many uses for the matrix. First, by plugging in a requested activity along with a due date, he is able to forecast how many people he will need to produce the course by the deadline. The executive development center also uses the matrix around budgeting time, he says.

"Clients come to us with their next year's objectives and tell us what they have in mind for training support. We can then calculate staff needs for the costs of off-the-shelf programs."

The matrix also makes managers more aware of the time and energy it

takes to put together a training program, Anderson says. Managers who want a complex program designed in a week quickly realize they need to either sacrifice time (by allowing the internal staff more hours for design) or cost (by going to a quicker, but typically more expensive off-the-shelf program). "They see they can't have it both ways," Anderson says.

Additionally, trainers who tend to bite off more than they can chew are brought back to earth with these ratios. "Trainers are always eager to please and tend to say yes to a lot of things without considering the consequences," Anderson says. "The matrix is a fine tool to help negotiate reality with them as well as with internal customers. It equips a training staff to be more confident in managing training time."

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