A Certification-Driven Training Program for Instructional Developers

Kenneth H. Silber

An academic program *can* produce practically-oriented graduates who meet the NSPI certification core competencies and who can "hit the deck running" as instructional developers in business and industry.

How? The recipe is simple. Start with 16 certification competencies. Add 1 medium-sized business and industry advisory group. Sprinkle (very lightly) with research studies on training instructional developers. Mix and bring to a boil for 1-2 days in a locked room.

CAUTION 1: Let ID faculty answer questions and facilitate groups, but that's all.

CAUTION 2: Lock out any administrators or faculty from the School of Education.

Let result age for 1 month. Then have faculty strain, separate, mix, and blend all courses and competencies in a curriculum mold. Send out samples to advisory group for "taste testing." Continue until results receive four stars in the local NSPI Gourmet Guide.

Let us look at the key ingredients for this recipe in more detail.

Start with the Certification Competencies

Use the certification competencies as the core of a "job model" for instructional developers. Though there will be some few competencies either the faculty or the advisory group feel "just will never be done here," and there will be some additional ones the faculty and advisory group "can't understand how they forgot to include," start with the list of 16 core competencies. Why?

1. They are only a core. You can add more later if you wish.
2. They do, as the Task Force (1981) says, represent those competencies that all developers ought to be able demonstrate all of.
3. To avoid the "not invented here" syndrome. If you start from scratch, two years later you will end up very close to here anyway.
4. These are *broad* competency statements. Your critical, and extremely difficult, job will be to break these down to discrete and specific competency/behavior/task/activity statements. It is easier to do that using the competency statements as a framework.
5. Since certification is coming, these are the competencies in which program graduates will have to demonstrate proficiency in order to be certified as instructional developers. Why be the only one on your block whose graduates cannot pass because you left out some competencies you did not think were important?

Add 1 Medium-Sized Business and Industry Advisory Group

One of the most common complaints business and industry people have about academic types is, "They don't care about the real world. They design their curriculum and ignore *our* needs."

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For most instructional development graduate programs, this complaint is all too true. The result is competition and conflict between the two groups, instead of a cooperative working relationship.

But it doesn't have to be this way. At least three programs with which the author is familiar (Governors State, San Diego State, and San Francisco State) have done what Community Colleges have been doing for years to overcome the "we-they" adversarial relationship. They have established Business and Industry Advisory Groups, and they pay attention to any recommendations.

These groups work with faculty and students to develop and revise the ID curriculum so it meets current and future employer needs. Rossett (1981) describes the advantages and the process of working with such a group.

The Business and Advisory Group can:

1. Identify technological and ID employment trends in the local area.
2. Specify what skills they look for in hiring new IDs (Deden-Parker, 1981).
3. Add competencies they feel important for graduates to have to work in their industries or their geographical area.
4. Specify the competencies/skills/tasks that fall under each of the broad Core Competency statements. This process is described below in the "Mix and Boil in Locked Room" section of the recipe.
5. Make presentations to classes about what life as an ID is like in the "real-world"—including criteria for success (like ROI and "the bottom line") and compromises in process graduates will have to make to meet these criteria.
6. Provide internship experiences for students toward the end of their coursework. Students get practical experience, while the Group members get low-cost, competent ID help.

Sprinkle Lightly with Research Studies

We all know how research studies make practitioners cringe—especially when theory is thrown in to boot. But lots of *practical research* has been done in the last three years that can help faculty and advisory groups in expanding and fleshing out the skeleton of the core competencies. Provided with the *results* (leave the methodology and statistics home) they have at their disposal information about:

1. The skills which business looks for in hiring IDs (Deden-Parker, 1981)
2. The myths and truths about the skills required of developers working in academia and in business/industry (Durzo, 1981; Sullivan, 1983; Trimby, 1982)
3. How other institutions train ID's (Silber, 1981)
4. Problems in training IDs (Bratton, 1981; Markle, 1981; Wallington, 1981)

These are classic and critical studies containing useful information the group is likely to want to review. Sprinkling small amounts of this information into the mixture will provide a sound base for the resulting creation.

Mix and Bring to a Boil in a Locked Room

It is now time to bring all the ingredients together. The faculty and the advisory group, armed with the certification competencies and the research results, go into a pressure cooker until they smoothly combine everything into a training program, or at least the first draft of one. Stelnicki (1983), using a different analogy, describes how this "group grope" worked at Governors State.

The group should operate with the following guidelines and cautions:

1. CAUTION. The faculty's role is to facilitate the group's functioning and answer questions—not to defend its own ideas about what is "right, good, important."

2. CAUTION. Keep out administrators or other School of Education faculty who will deal with "education requirements" or "the importance of their courses" rather than with the practical, results, competency orientation of the rest of the group.

3. Divide the group into sub-groups based on level of ID expertise, number of ID's employed, type of setting, or interest in particular competencies.

4. Give the sub-groups specific goals, tasks, and time frames—and hold them to them.

5. Let the sub-groups begin by brainstorming and analyzing, but be sure they end by synthesizing and prioritizing. The results of this process should be the skeleton of a training program:

   a. Additional "broad level" competencies to be added to the "Core Certification Competencies;
   b. Statements of specific competencies/skills/tasks related to each broad competency;
   c. A curriculum structure listing courses/training modules related to the broad competencies;
   d. (If you are lucky or boil the mixture long enough) the specific competencies to be taught in each course/module, and the sequence of courses/modules, for the entire curriculum.

Is this a fantasy? No. Here's what Governors State's group came up with for the Certification Competency 11: "Evaluate Instruction/Training:"

Course Title: Evaluation/Cost Benefit Analysis in Instructional and Training Technology

Competencies: Evaluate and revise a previously developed course or product or an HRD program in terms of corporate and course objectives, including:

1. Build in evaluation as an integral part of the design process
2. Conduct content review
3. Develop a formative evaluation plan
4. Construct appropriate criterion-referenced test instruments (paper and pencil as well as performance)
5. Construct appropriate attitude scales for formative evaluation
6. Conduct one-on-one and small group formative evaluation
7. Use statistical techniques to analyze formative evaluation data (descriptive, t-test, X^2, one way ANOVA)
8. Identify needed revisions in materials
9. Revise materials
10. Develop a summative evaluation plan
11. Conduct summative evaluation
12. Use statistical techniques to analyze summative evaluation data
13. *Perform a cost analysis to identify costs of developing and implementing the product, course, or program*
14. Perform a benefit analysis to identify time and money saved through training
15. *Compute the cost-benefit ratio for the product, program, course*
16. Write an evaluation report that communicates to management
17. Synthesize and evaluate theories related to evaluation and cost-benefit analysis in HRD/training/instructional development

(Governors State University, 1983)

Let Result Age for 1 Month

Like any novice chef, you and the group will want to serve up your delicious offering immediately. Like fine wine, beef stew, and spaghetti sauce, however, your result will be far better if you let it sit for a while. Store it in the "curriculum cellar" to give it, and you, time to cool off. Then you will be able to go back and taste it again with less biased senses.

Put into Curriculum Mold

Now it's time for the faculty to sit down and strain, separate, mix, and blend all the competencies and courses into a curriculum mold that fits the constraints of the institution:

1. Check to see that all the core competencies are included in the proposed training program.
2. Check to see if all broad competencies have been broken down to specific competencies/tasks/skills; then check to see if the groupings make sense. If not, re-arrange them.
3. Check to see if there is duplication of specific competencies in different broad competencies; if so eliminate duplication.
4. Find out how long a training program the group has created for you, and compare that with what the institution will allow. At Governors State, the advisory group created a 16 course, 48 semester hour master's program (that's 12 semester hours too many). If it's too much or too little, begin to look for places to recommend changes to the group.
5. Find out how your training program stacks up against others studied by Silber (1982) and see if you seem to be weak (comparatively) in any areas where you don't want to be weak. Figure 1 shows how the *new* Governors State program compares to the Competencies with the averages of the institutions studied.
6. Now add any broad or specific competencies you feel the training program is missing.
7. Finally, synthesize all you've got into an ID training program: a full curriculum including courses, and modules; with competencies and credits; and with pre-requisites and sequence.

Instructional Design Certification Competency	# Training Hours in Class	
	New GSU Program	Average of 9 Programs
1. Determine projects appropriate for instructional development	42	7.2
2. Conduct needs assessments	12	9.9
3. Assess learner/trainee characteristics	6	6.0
4. Analyze structural characteristics of job/task/content	21	21.9
5. Write statements of learner outcomes	15	17.1
6. Analyze characteristics of setting	3	5.1
7. Sequence learner outcomes	9	5.0
8. Specify instructional strategies		
9. Sequence learner activities	68	8.7
10. Determine instructional resources		
11. Evaluate instruction/training	48	39.6
12. Create course management system	48	35.7
13. Plan & monitor ID projects		
14. Communicate effectively in visual, oral, and written form	48	No data
15. Demonstrate appropriate interpersonal, group process, and consulting behaviors	42	19.5
16. Promote the diffusion/adoption of the ID process	42	21.6

Total for Core GSU Program	= 405 hrs.	= 9.0 Courses	=	27 Credits
Intro/Theory/Research	= 60 hrs.	= 1.3 Courses	=	4 Credits
MA Project and Internship	= 150 hrs.	= 1.7 Courses	=	5 Credits
		Program total	=	36 Credits

Figure 1. Comparison of the Number of Training Hours per Competency between New Governors State University Master's Program and Averages of Nine Programs Studied by Silber (1982)

Send Out Samples for "Taste Testing"

We all know about the painful but enlightening process of subjecting our work to formative evaluation. This recipe is no exception. Send out the training program in all its organized glory to the Advisory Group to taste, chew, and react.

Be sure to structure some "taste test" instructions so you get feedback in the "use ½ tsp. less salt" rather than the "it's no good, try again" category.

1. Ask if everything they wanted at the meeting is included.
2. Ask if there's anything they've thought of since the meeting that they want to add.
3. Point out things which you thought were missing and which you added. Ask for specific reactions to them.
4. If the program seems weak in an area (compared to other programs), point this out and ask if they feel that's OK.
5. If the program is too long (as it almost certainly will be), ask them to either:
   a. Prioritize the competencies, so you can cut the least important,
   b. Identify some competencies as required and some as elective, or
   c. Combine competencies/courses/modules so they fit within the maximum number allowed.

Change Ingredients and Process Slightly

Based on the feedback you receive from the group, recycle to the appropriate part of the recipe and go through the cycle again. If you've listened well, one or two more iterations of the "Put in Curriculum Mold" and "Send Out Samples" should suffice.

Now get the whole group together again (this time, more for feasting than for cooking). Have small groups review the final version and make any final changes before publishing the masterpiece.

Receive 4 Stars in Local NSPI Guide

Now you have a curriculum that you and the advisory group *think* will produce practically oriented graduates who can meet the NSPI certification core competencies and who can "hit the deck running" as instructional developers in business and industry.

You have done all the "right" things: started with core competencies, used an advisory group, recycled through the process. You should be way ahead of any other academic training program in meeting the goal of having "competent, employable, certifiable" graduates.

BUT YOU DON'T GET YOUR 4 STARS IN THE LOCAL NSPI GOURMET GUIDE YET.

NSPI is results-oriented; we want accomplishments, not behavior.

So, to find out how well you and your advisory group have done, you will have to wait a few years. You will have to train the instructional developers. They will have to get jobs. You and their employers will have to evaluate their performance. And you will have to see how well they perform on the certification exam. Only then will you be able to say whether or not you have designed a good training program.

In the Meantime... Summary

In the meantime you can rest easy. Why?

Because the certification core competencies provided you with the criteria to use as the basis for building a *criterion-referenced training program*. And the process you followed, including the use of master performers and research to validate the competencies, the testing and revision cycle, and the measurement of

results, is analogous to the *systems approach* to the design of instruction/performance solutions.

That is to say, in designing your own ID training program you have practiced what you and NSPI preach in journals, teaching, and consulting. MORE SPECIFICALLY, YOU HAVE PRACTICED EXACTLY THE SKILLS THE CERTIFICATION CORE COMPETENCIES CALL FOR.

So you can rest easy because you can expect that by following those competencies yourself, your program will produce results.

And if it does not, well, then we will all be looking for those preachers at the next NSPI Conference. P&I

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CORRECTION

Please note the following address correction for one of our authors for the November Journal.

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