



Topic:

Is guided design an effective way to help people learn to solve real-life problems?

Research tells us:

A synthesis of findings from studies of the guided design learning strategy indicates that learners experiencing this approach are likely to increase their (1) ability to retain particular information, (2) ability to apply the content to solve realistic problems, and (3) confidence that they can find information they need to solve problems.

Guided design learning is characterized by (1) sequential presentation of material, (2) team or small-group problem-solving opportunities, (3) written and/or verbal evaluation feedback from the instructor, and (4) use of realistic problems as the basis for much of the work.

Acting on the evidence:

A training opportunity for adult learners, such as a group of childcare teachers, should include:

- ◆ How to find information/resources to solve problems.
- ◆ Time to work together in small groups to assemble information they need to solve a given problem.
- ◆ An assignment to solve a problem related to their everyday experiences in the childcare classroom.
- ◆ Ways that you, as instructor, can offer guidance and support as they work to solve an assigned problem.

Reach adult learners with *guided design*

Instructional strategy strengthens ability to solve problems

According to an analysis of research findings from 31 studies of guided design, this instructional strategy can be used successfully to present new information that a group of learners can use to solve realistic problems. Guided design helps a team or group of learners not only to learn new information but also how to apply the information in realistic situations.

For the analysis conducted by Carol M. Trivette, Ph.D., at the Research and Training Center on Early Childhood Development, the term *guided design* refers to a method of instruction with four essential characteristics: (1) a sequential process for mastering new information, (2) a team or small-group instructional component, (3) a focus on solving realistic problems, and (4) provision of feedback on learners' work.

Dr. Trivette's purpose was to determine the effect of guided design on adult learners' ability to master course material, acquire problem-solving skills, and successfully use course material to handle realistic situations in their field of study. Her examination of the group of studies indicates that guided design does have a positive influence on the mastery of course content and learners' ability to use the content to solve realistic problems. The guided design teaching method also boosts a learner's sense of personal competence and confidence in problem solving, and students indicated that they were more satisfied with guided design instruction than they were with other instructional techniques.

This analysis results in three major implications for practice. First, when developing educational opportunities for adults, have learners work in groups or teams to sequentially gather information relevant to solving a problem. Second, use problems based on realistic situations the learners are likely to encounter in their field. Third, while avoiding giving final solutions, guide the learners through the problem-solving process by giving clear and constructive feedback in the form of suggestions, and perhaps directions.



Work in learning teams is one hallmark of guided design instruction.

Guided design workshop helps child care teachers learn and apply strategies for including young children with disabilities in their classes

As the thirteen staff members of Casa Alegre child care center assemble in one of the center's large classrooms, the usual lively hubbub of the toddler group's breakfast time is missing. Free from their regular duties, the teachers' have gathered for an in-service workshop.

Center director Candace Weller quickly opens the session. "As you know, the Casita has been chosen as a pilot site for the county's new Inclusive Early Development project. In two weeks we'll begin enrolling infants, toddlers, and preschoolers with developmental disabilities in our classes for the first time. I know this will be a change for all of us, and some of you have already spoken to me about your anxieties. But I want to assure you—the project includes the supports we'll need to make this venture a real success, not only for the little ones who'll be joining us, but for all of our children, for their families, and for ourselves. I encourage you to think of this as a great opportunity for everyone concerned. So, let's get started."

Candace gives the floor to the center's new, project-funded, inclusion specialist, Patsy Mahan, who spends the morning introducing some of the new concepts and procedures inclusion will bring to the staff—using Individual Family Support Plans and following confidentiality guidelines, for example. Throughout the presentation, Patsy suggests where staff will be able to find the kinds of information and supports they'll need to successfully include children with disabilities in Casa Alegre programs.

"Please don't be deterred by what you *think* you *don't* know about supporting young children with disabilities and their families in a regular childcare setting. Today our focus is on helping you *learn to find* any information and resources you'll need to be able to solve new challenges as they arise."

After lunch, Patsy uses guided design teaching strategies to help the teachers plan and prepare for inclusion. Her goal is

to help the staff members discover how to gather and use information to handle the kinds of new situations they might encounter in inclusive classrooms.

Dividing the staff into three working groups, Patsy gives each group a different one-page description of a fictional child with a disability. "Take a few moments to read about the new child in your class, then, working as a group, decide how you will handle the following situations. Try to think in terms of all the steps you'd want to take to make these things happen." She tapes on the wall four large, flip-chart pages lettered with questions :

1. *How will you change the physical arrangement of your classroom (furniture, centers, storage, toys, learning materials, traffic flow, etc.) to meet this child's needs?*

2. *How will you modify your daily schedule and activities to accommodate this child's special needs?*

3. *How will you include this child on a class trip to the petting zoo?*

4. *What supports (training, information, personnel, materials, etc.) do you need to make including this child in our program a big success? How will you go about getting what you need?*

Soon, the groups are fully absorbed in discussion. As they consider each question, they use a variety of resources to collect the information they need to answer it. Candace and Patsy circulate among the three groups, offering suggestions about searching the

Internet or telephoning the county media center or public library to find information they need. Candace and Patsy review the plans staff generate and give concrete feedback to clarify thinking, praising their thoughtful and creative ideas for making full inclusion work well in their program.

The very pleased center director concludes: "Today you've all clearly demonstrated the flexibility, creativity, sensitivity, and smarts needed to make inclusion here at Casita a great success!"



Take another look:

The complete research synthesis is available to read or download as *Bridges, Volume 3, Number 1* on the products page of the RTC web site, www.researchtopractice.info: Trivette, C. M. (2005). Effectiveness of Guided Design Learning Strategy on the Acquisition of Adult Problem-Solving Skills.

Bridges, 3(1). Copies of the synthesis, this *Bottomlines* research summary, and a variety of practice guides based on this topic are available online. Paper copies may be ordered from Winterberry Press, P. O. Box 2277, Morganton, NC 28680. 800-824-1174. www.wbpress.com.