Strategram™

STRATEGIES INTERVENTION MODEL

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Looks Do Make A Difference

—graphic organizers for learning —

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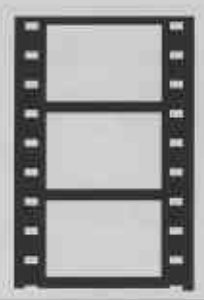
Visual depictions such as graphic organizers, webs, networks, and time sequence figures have increasingly been used as instructional adjuncts for teaching concepts to students with learning disabilities. With only a few exceptions, for example, Bulgren's Concept Teaching Routine, this kind of instructional tool has been used in an isolated manner and not merged with a complete instructional routine. Visual depictions have also been used primarily for enhancing text comprehension. By relegating the use of visual depictions to textual learning only, we miss an opportunity to use this method in other learning contexts. This is true especially considering that much of teaching during class time occurs via lecture/discussion format. Therefore, it makes sense for teachers to use visual depictions to enhance student learning in this instructional context, too.

The Center for Research on Learning staff and affiliates have been developing instructional routines which visualize depictions. Crank and Bulgren (1993) outlines and explains the many types of visual depictions presented in the educational literature finding several dozen different kinds of visual organizers. However, significantly missing from most of the studies was an explanation of how to incorporate the visual depiction in an overall instructional routine. In an effort to address this Crank (1990) developed The Visual Depiction Instructional Routine which incorporates both visual depictions and a complementary set of instructional cues. The intent of this article is to present a synopsis on how visual depictions can be used effectively in direct teacher-led class instruction of content area information.



Why Use Visual Depictions?

Table 2 on page 3 gives the steps for developing information into visual depictions. This is a guide for selecting the appropriate kind of depiction for the information the teacher want to present to the class. Once it is decided that the content is important enough to visually enhance, it is time to decide how best to depict it. Given that there are many, many types of visual depictions, how is it decided which one is best to use? Although there are dozens of types of visual depictions, we have found there are three or four basic kinds of depiction structures which are instructionally

Table 1

Improving Instruction and Student Learning with Visual Depictions

Visual Depictions Can:

* highlight important information
* interrelate ideas or concepts of the lecture topic(s)
* organize information
* compensate for inconsiderate texts
* connect current information to previous knowledge
* compensate for poor listening
* be symbolic and emotive
* be strategic
* activate student through novelty
* be developed to incorporate most lecture topics or kinds of information

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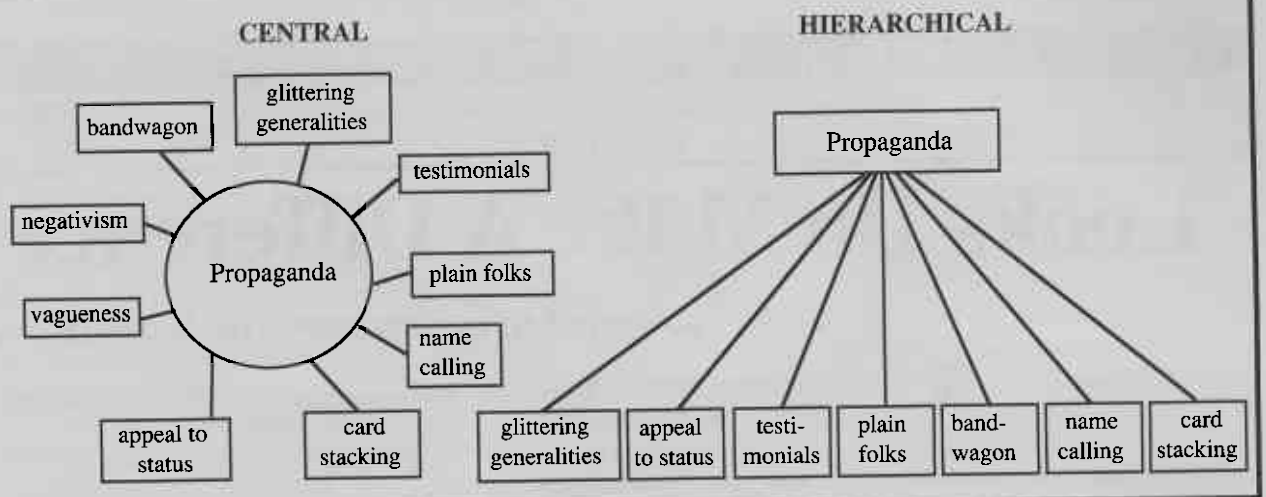
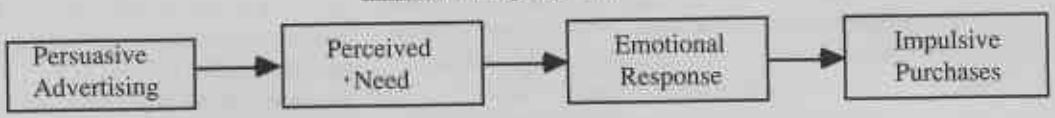
Figure 1

Structure and Content of Visual Depictions



DIRECTIONAL

Effects of Propanganda



COMPARATIVE

Examples

Characteristics	Bandwagon	Appeal to status	Glittering generalities	Testi-monials	Plain folks	Name Calling	Card Stacking
appeal to emotion	√	√	√	√	√	√	√
appeal to elitism		√		√			
appeal to common man	√				√		
negativism						√	
vagueness			√				
partial facts							√

(continued from page 1)

appropriate for much of the information presented in content area classes. This is because much of this kind of information is expository in nature, for example, categorical, compare/contrast, and sequential, thus the information is amenable to visual presentation in central or hierarchical depictions, comparative depictions, or linear/directional depictions. Examples of these types of depictions are offered in Figure 1 and 2 on pages 2 & 4. Figure 1 shows how information is presented in the different types of depictions depending on the focus of the information. Each visual in Figure 1 depicts some aspect of "propaganda." Types of propaganda are presented in the first visual. Effects of propaganda in merchandising are shown in the second, and differences and similarities between types of propaganda are in the

(continued on page 3)

Table 2
Steps for Developing Information and Visual Depictions

Step 1	Choose the topics you want to present to your students.	a. Prepare as usual using curriculum guides, text teacher's manual, lesson plans, etc.
Step 2	Decide what information you want to enhance with depictions.	a. Depict the most important information. b. Depict information the students should remember for quizzes or tests. c. Depict information which is prerequisite for a following class. d. Depict information which you subjectively believe is worth the added effort. e. Depict information which students may have difficulty learning from lecture only.
Step 3	Decide if the information could be presented with one of the depictions presented in the training manual.	a. Look for a pattern in the way the text presents the information. b. Decide if the information is categorical. c. Decide if the information is sequential. d. Decide if the information is compare/contrast. e. Decide if another depiction would be appropriate.
Step 4	Choose the depiction from the manual which would best enhance the information.	a. Select a hierarchical/central depiction. b. Select a sequential or directional depiction. c. Select a comparative depiction. d. Select another depiction.
Step 5	Develop the depiction before class or have the depiction firmly in mind so as to be prepared for the lesson presentation.	a. Read the manual for examples of depictions. b. Draw the depiction. c. Place the information, works, phrases in appropriate spaces/cells.
Step 6	During class, redevelop the depiction while discussing the instructional information with the students.	a. Use the instructional cues.

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third. Each of these are examples of categorical, sequential, or compare/ contrast information patterns.

Figure 2 gives another example of how categorical information is illustrated in a central depiction. In this case the topic is "Gypsies," and basic misconceptions about "Gypsies" are presented in a central type visual. A simple web or two level graphic typifies this hierarchical or categorical information.

A more complete description of information patterns and the different kinds of depictions is presented in the Visual Depiction Instructional Routine Manual. Merging the use of visuals into a complete instructional strategy requires using appropriate instructional cues.

What Kind of Instructional Cues Complement the Depiction?

It has been found that depictions are most effective in instruction when used with specific cues which orient the student to various aspects of the actual depiction and its topical content therefore engaging students in the learning process. Table 3 on page 4 gives ten types of cues which complement the visual depiction. Some cues are short and simple, others are somewhat more complex but all are easily merged in the teaching session. For example. it is important to tell the student the name or the type of depiction being used. For instance, if the topical matter is "propaganda" and the instructor is teaching the differences between the kinds of propaganda, the teacher

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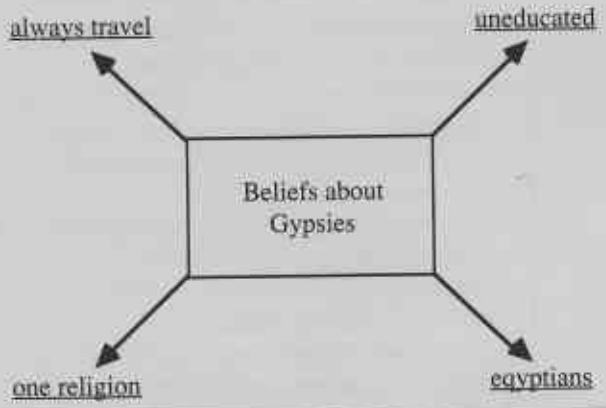
Figure 2

Example of Categorical Content Presented with a Central Visual Depiction



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would use a comparative depiction. At the beginning of the learning session, the teacher would tell the students: "We are learning about propaganda and the visual depiction we are going to use is a compare/ contrast graphic which will show us how the types of propaganda are similar and different." These simple but important cues indicate important forthcoming information, how it will be presented, or the relationship between old and new information. As Table 2 indicates, other cues engage the student in other aspects of the learning task. For example, at the end of the learning session the teacher may refer back to the visual depictions and use them in summarizing the lesson.

What Outcomes Can Be Expected?

This routine has been field tested with mainstreamed learning and non-learning disabled students. When the instructional strategy is used in its **entirety** there has been a better performance on post instruction quiz scores of between ten to seventeen per cent. These kinds of improvements seem modest, but they clearly represent the difference, potentially, between passing and failing a test or class. The power of this instructional routine may well be greater when paired with other strategic methods of instruction such as the Advance Organizer. The outcomes of using the Visual Depiction Instructional Routine seem to reinforce the notion that organization of information is important in learning, and the way teachers organize and present information is critical for learning to occur. When looking at the use of this singular routine, it merges well with strategic learning and instruction and encouraged in the Strategies Implementation Model. ■

Table 3

Instructional Cues

1. State the name of the visual depiction.
2. Tell the student to look at the visual depiction.
3. Tell the student that the depicted information is important and why.
4. Tell the student they need to record or remember the visual.
5. State how the depicted information relates to the most recently presented material.
6. Physically draw attention to the depicted information.
7. Make completed statements about each element of information in the depiction.
8. Explain the relationships between the topics or concepts.
9. Ask students to discuss the topic in the depiction.
10. Use the depiction when summarizing the lesson.

SLANT Espaniol

by

Gail Cheever

The migrant education teachers in the Central Valley of California, Migrant Education Regions 3 and 5 recently submitted the Spanish translation for the SLANT mnemonic. The teachers work with the English As A Second Language program in these areas. They felt that the strategy could be beneficial to the students in the program if the translation could be provided. After several revisions and consultations with Spanish educators the translation on below has proven successful in these programs. If there are any questions about the use of strategies with the English As A Second Language Programs the following educators would be willing to answer them:

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Bakersfield CA 93309

S iéntate bien

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A ctiva tu pensamiento

N ombra la información importante

T u vista al orador

SIM: As an Application for Learning Disabled Juvenile Offenders

by
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The Strategies Intervention Model has been shown to have wide applicability for students with learning disabilities and other low achievers in diverse settings. This has been demonstrated by its success in all levels of regular education and support class situations. Recently, the Strategies Intervention Model has proven successful with juvenile offenders with learning disabilities in correctional settings.

In recent years attention has focused on the overrepresentation of individuals with disabilities in correctional populations. Adolescents with learning disabilities comprise a high percentage of the incarcerated with estimates ranging from ten percent to fifty percent. (Nelson, Rutherford, and Wolford, 1987). Due to the large numbers of youth in correctional facilities who are at risk and have learning disabilities, it is imperative that we develop and field test interventions to meet the unique needs of this population. In that way, we can maximize their opportunities for success as they transition to school, home, work, and community settings upon their release from the correctional facility, Traditional instructional approaches for adolescents and adults with learning problems have focused on the teaching of basic skills and content. The skills approach is typically not appropriate for this population because the individual is often functioning at a low achievement level (for example, third or fourth grade) which is difficult to increase even with intense instruction. Furthermore, basic skills may be difficult for adolescents and adults, including adjucated youth with learning disabilities, to apply outside the classroom and may not be particularly meaningful to them. The content approach tends to increase dependence by placing the responsibility for learning upon a tutor or remedial teacher. Once the support system is no longer available, the individual is usually not able to independently complete tasks. This approach is not appropriate for challenged offenders because their educational support system is no longer available upon their release from the correctional facility.

Compared to traditional instructional approaches, the Strategies Intervention Model appears to be a viable alternative for the correctional population because: a) it is designed to meet academic,social, and motivational needs of individuals at risk for failure; b) it promotes independent functioning and problem solving, and c) it emphasizes maintenance and generalization of skills and strategies.

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Description of Project

Florida, along with many other states in the nation, has recognized and is addressing the need for quality correctional education programs. In 1989-90, approximately forty thousand youth were detained in juvenile detention centers and five thousand were detained in juvenile commitment facilities. Furthermore, a majority of these offenders have been or can be expected to be identified as having disabilities, and will therefore, need special education services.

The challenge to Florida's education staff in delinquent and correctional facilities it to meet the many diverse needs of the growing population of youthful offenders. To assist the correctional educators federal funding was obtained from the Office of Special Education Programs (OSEP). This resulted in the development of eleven university level courses, or teaching modules, including areas such as academic and vocational assessment and programming, behavior management, personal/social skills, and learning strategies. Correctional educators participated in these courses to meet state certification requirements in special education.

Project Participants

The participants who enrolled in the Learning Strategies course consisted of thirty-two correctional educators, sixteen male and sixteen female. All participants were working with offenders under the age of twenty-one, with twenty-five teaching in academic settings and seven teaching in vocational settings. They represented nine adult facilities and one juvenile detention center. At the conclusion of the course twenty-seven correctional educators had completed all requirements.

Methodology

The Learning Strategies Module was developed by Dr. Marty Beech and field-tested by Jenny Platt during the three year funding period, 1989-92. Specific strategies were selected and taught to the offenders to help them independently solve problems and take an active role in planning and directing their lives so that opportunities for successful reentry would be maximized. The module was offered in two three-day sessions over a four month time period. The content of the training included: a) orienting the participants to the Strategies Instructional Approach, the Strategies Intervention Model, and the Learning Strategies Curriculum; b) discussing the characteristics of juvenile offenders with learning disabilities; c) teaching the participants specific learning strategies, and d) when necessary, generating solutions to problems of implementation. Approximately half the participants were trained in the *Paraphrasing Strategy* and the other half in the *Work Identification Strategy*. In addition, just over half were trained in the *Test-Taking Strategy*. The remaining participants (primarily vocational teachers) met to discuss further adaptation and modifications that would be required to make the strategies workable in vocational settings. Participants were asked to implement either the *Paraphrasing Strategy* or the *Word Identification Strategy* at their facilities.

Results

Project participants reported that the *Paraphrasing* and *Work Identification* strategies produced impressive results among the inmates. *The Work Identification* appeared to be highly applicable to the inmate's needs because it provided them a quick and effective method to attack unknown words, was easily mastered, and was generalized to different materials and situations.

Each inmate's reading level and grade level were identified. Grade level was determined by the gradethe inmate's would be attending if they were in school (for example, eleventh grade). Reading level was determined by checking the inmate's reading

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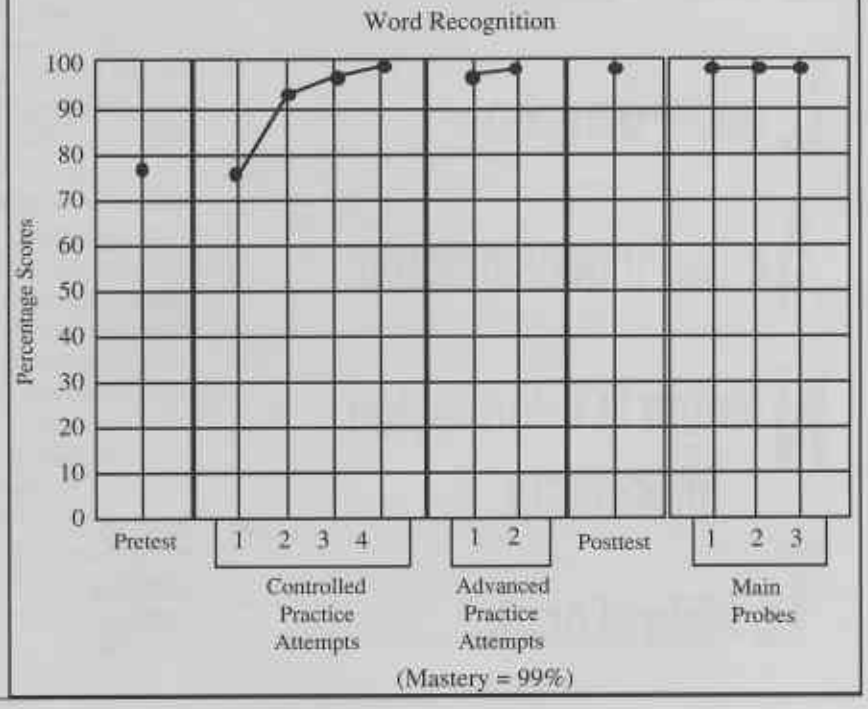
Table 1
Subject #6: Pretest, Controlled Practice, Advanced Practice, Posttest, and Maintenance Probe Scores



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score on an achievement test (for example, fifth grade).

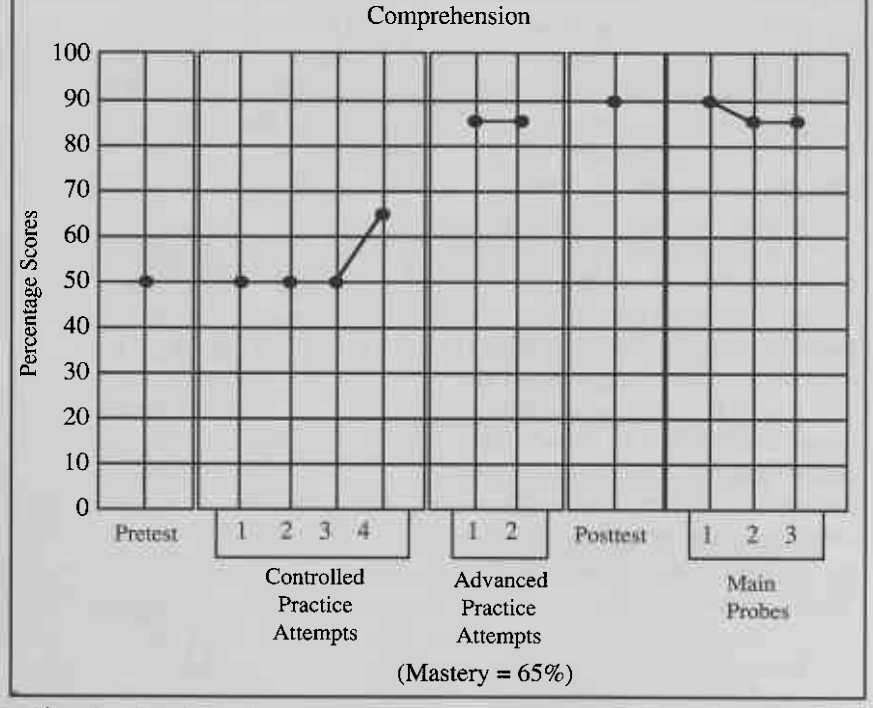
Results were reported for pretests, controlled practice tests, advanced practice tests, and posttests. These tests produced scores in word recognition, with ninety-nine percent required for mastery, and comprehension, sixty-five percent correct required for mastery. Each inmate was asked to read a one hundred word passage aloud and answer five questions about the passage. His or her performance was then compared to the criteria for mastery.

Results are reported for six of the juvenile offenders. Subject #1 was given four controlled practice tests in both word recognition and comprehension. The teacher did not report his pretest and posttest scores, but on controlled practice tests, the student met mastery criteria for comprehension and scored close to mastery on word recognition. His teacher commented, "I hope I'm not getting my expectations up, but this strategy worked so well for this student, I'm going to see if I can incorporate it into my regular curriculum.

For subject #2 and #3 the teacher reported pretest, controlled practice, and advanced practice scores.

Subject #2 was close to mastery in the word recognition pretest, and achieved mastery during the second controlled practice. The subject scored above the mastery level in both advanced practice attempts. Hescored eigthy percent correct during the comprehension pretest, but scored thirty percent in the second controlled practice attempt. He did achieve and maintain ninety percent in the third controlled practice and first and second advanced practice attempts. Subject #2's teacher reported that his controlled practice comprehension score of thirty percent was due to the fact that just prior to taking his test he was told that he was going home. The teacher commented that during a self evaluation the student stated that the *Word Identification Strategy* had helped them increase their ability to figure out words. Before this teacher taught the strategy she used computer programs to teach prerequisite skills and used alternative reading materials such as the newspaper to apply the strategy.

Table 2
Subject #6: Pretest, Controlled Practice, Advanced Practice, Posttest, and Maintenance Probe Scores



Subject #3 achieved mastery and maintained it after the second word recognition controlled practice attempts. The comprehension scores were above mastery in the pretest.

Subject #4 who reads at a seventh grade reading level, completed a pretest, four controlled practice tests, and a posttest. His scores improved from seventy percent correct in the pretest to mastery by the third controlled practice attempt. His comprehension scores improved from fifty percent to one hundred percent by the third controlled practice. His pretests and posttests were taken from a college biology textbook. During the time the student was working on the strategy he spent time in the library reading and decoding words using the *Word Identification Strategy*. They discussed using this strategy in the future and he will be taking his pre-GED test next month.

Subject #5, who reads at a third grade reading level, would like to get his GED. His teacher reported that he practiced using the strategy when reading sports and wildlife magazines. He completed a pretest, three controlled practice tests, and a posttest. His scores began at eighty-seven percent and improved to

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mastery in word recognition by the third controlled practice attempt. His comprehension scores improved from fifty percent in the pretest to one hundred percent in the third controlled practice. He scored an eighty percent on the posttest.

Subject #6, was reading at the fifth grade level, wanted his GED, and had been working hard in class. However, he was not making good progress. After the posttest of the strategy the teacher conducted maintenance probes to monitor his application of the strategy. **See Table 1 on page 6 for word recognition scores, and Table 2 on page 7 for comprehension scores.** His progress has been remarkable. The results were significant enough to encourage the application of the strategy to the "Back to School Program."

Evaluation of the Learning Strategies Module

The correctional educators who implemented the *Word Identification Strategy* were pleased with the results that the juvenile offenders achieved. The inmates made impressive gains and some spoke of opportunities to apply the strategy upon their release from the correctional setting. Teachers in academic settings appeared to implement learning strategies more easily than those in vocational classes. To address this, participants suggested that it would be helpful to do a job analysis in vocational classes to determine which learning strategies are needed and how to make them more applicable to those settings.

Summary and Conclusion

Overall, the consensus among the participants was that the *Paraphrasing* and *Word Identification* strategies were extremely effective. In their discussions about the use of learning strategies with juvenile offenders, teachers stated that they will continue to use strategies. Correctional educators also commented on the inmates' enthusiasm for strategies and about their intent to generalize strategies to other situations and settings. When necessary. teachers made modifications to increase the success of the strategies in the correctional setting.

The Strategies Intervention Model appears to be a promising alternative for adolescents and adults in juvenile correctional facilities. The emphasis on **how** to learn makes this approach one that can be generalized to other situations and settings so that after the offender is released, he or she can apply these strategies independently.

Through visits to correctional facilities, discussions with correctional educators, and an examination of the curriculum for juvenile offenders, personnel in correctional and special education can identify the learning strategies that are the most relevant for academic and vocational settings. These strategies can then be implemented into any subject area. Further field testing of learning strategies in correctional settings is recommended to determine optimum methods of implementing this curricular approach with juvenile offenders. ■

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