

#### **Description of a Convergent Discovery Style\***



What classroom image would you see between the teacher and learners that would indicate the structure of the Convergent Discovery Style?

In Style G you will see that the teacher designs a situation or question that has one specific correct response. The situation or question is new, and the anticipated response is not previously known to the students. The learners are given individual and private time to use their "thinking" processes to sequentially and logically discover the anticipated/targeted answer. There is only one correct anticipated answer to solve the question/situation.



The content in this style is new and not known in advance to the learner. Styles F-K promote different structures for discovery learning and different cognitive operations.



### **Learning Focus**

The learning focus of the Convergent Discovery Style is to develop the cognitive capacity to discover a single anticipated, predetermined response to a new and unfamiliar stimulus by shuffling known information to produce the discovered anticipated response. If content was previously known by the learner, then the experience is not Convergent Discovery but Practice Style.





Each picture puzzle communicates a common saying.





#### Solve the next two word puzzles:

- 1. What do these animals have in common? Beagle Beetle Elephant Mongoose
- First draw a large W. Now draw three straight lines through the letter such that nine triangles are formed. (Triangles that overlap don't count.)



All subject matter has content that is appropriate for the different teaching styles. Physical activities were selected to more visually convey the decision making concept of each style.



#### The Anatomy

In the anatomy of the Convergent Discovery Style, the role of the teacher (T) is to make subject matter decisions, including the target concept to be discovered, and to design the single question delivered to the learner. The role of the learner (L) is to engage in reasoning, questioning, and logic to sequentially make connections about the content to discover the answers.

<sup>★</sup> The arrows represent the decision shifts from the Guided Discovery Style-F to the Convergent Discovery Style-G.



### **Style Summary**

In the Convergent Discovery Style, the role of the teacher is to make all subject matter decisions, including the target concept to be discovered, and to design the single question delivered to the learner. The role of the learner is to engage in reasoning, questioning, and logic to sequentially make connections about the content to discover the answer.



#### **Subject Matter Objectives**

When the Convergent Discovery Style is achieved, the following subject matter objectives are reached:

- To discover the single correct answer to a question or the single correct solution to a problem
- To discover the content sequence that, when logically linked, leads to the final response
- To discover a pattern for thinking about the content
- Others



#### **Behavior Objectives**

When the Convergent Discovery Style is achieved, the following behavioral objectives are reached:

- To engage in convergent discovery and the production of the one correct response
- To activate logic, reasoning, and sequenced problem-solving skills
- To construct a specific sequence and search for the cognitive operations that produce the temporary heirarchy that will solve the problem
- To experience the cognitive and emotional exhilaration that accompanies the eureka experience
- Others