

Marzano's Non-linguistic Representations

Excellent source for graphic
organizers

Categories of Instructional Strategies That Affect Student Achievement

Category	Average Effect Size	Percentile Gain
Identifying similarities and differences	1.61	45
Summarizing and note taking	1.00	34
Reinforcing effort and providing recognition	.80	29
Homework and practice	.77	28
Nonlinguistic representation	.75	27
Cooperative learning	.73	27
Setting objectives and providing feedback	.61	23
Generating and testing hypotheses	.61	23
Questions, cues, and advance organizers	.59	22

5 Nonlinguistic Representations

- Based on the Dual Coding Theory of information storage
 - Linguistic form
 - Actual statements in long term memory
 - Imagery form
 - Mental pictures or physical sensations such as smell, taste, touch, kinesthetic association and sound
 - Known as nonlinguistic representations

5 Nonlinguistic Representations

- The more we use both linguistic and imagery forms, the better we can think about and recall knowledge
 - Especially true in the classroom because most information is taught linguistically by
 - Talking to them
 - Having students read about new content

#5 Nonlinguistic Representations

- A variety of activities produce nonlinguistic representations
 - Creating graphic organizers
 - Making physical models
 - Generating mental pictures
 - Drawing pictures and photographs
 - Engaging in kinesthetic activity

5 Nonlinguistic Representations

- Nonlinguistic representations should elaborate on knowledge
 - Elaboration means students add to their knowledge of the basic concepts being taught
 - The process of generating graphic organizers engages students in elaborative thinking
 - This process can be enhanced by asking students to explain and justify their elaborations

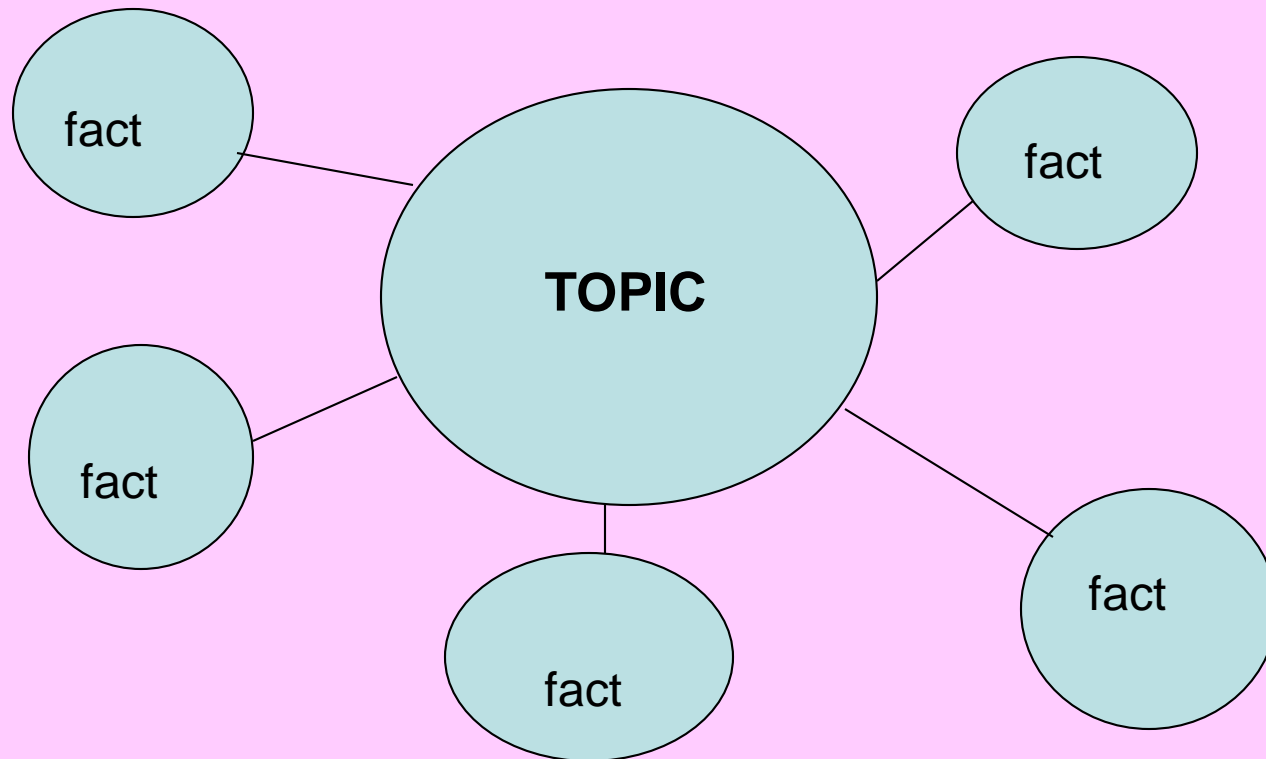
Graphic Organizers

- Graphic Organizers involve two forms of information storage
 - The linguistic mode with words
 - The nonlinguistic mode with arrows and symbols to represent relationships

Graphic Organizers

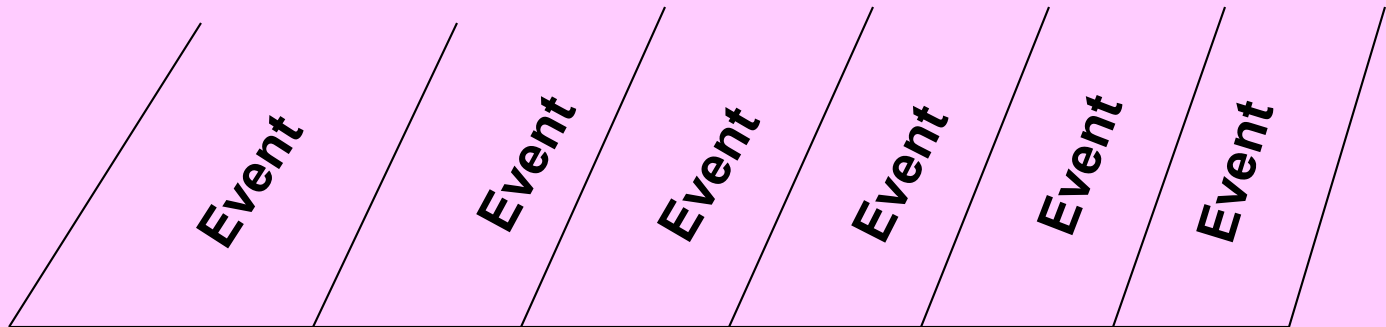
- **Six types of graphic organizers**
 - Descriptive patterns
 - Time sequence patterns
 - Process/cause –effect patterns
 - Episode patterns
 - Generalizations/principle patterns
 - Concept patterns
- **These correspond to six common patterns in which most information can be stored**

Descriptive Pattern Organizer



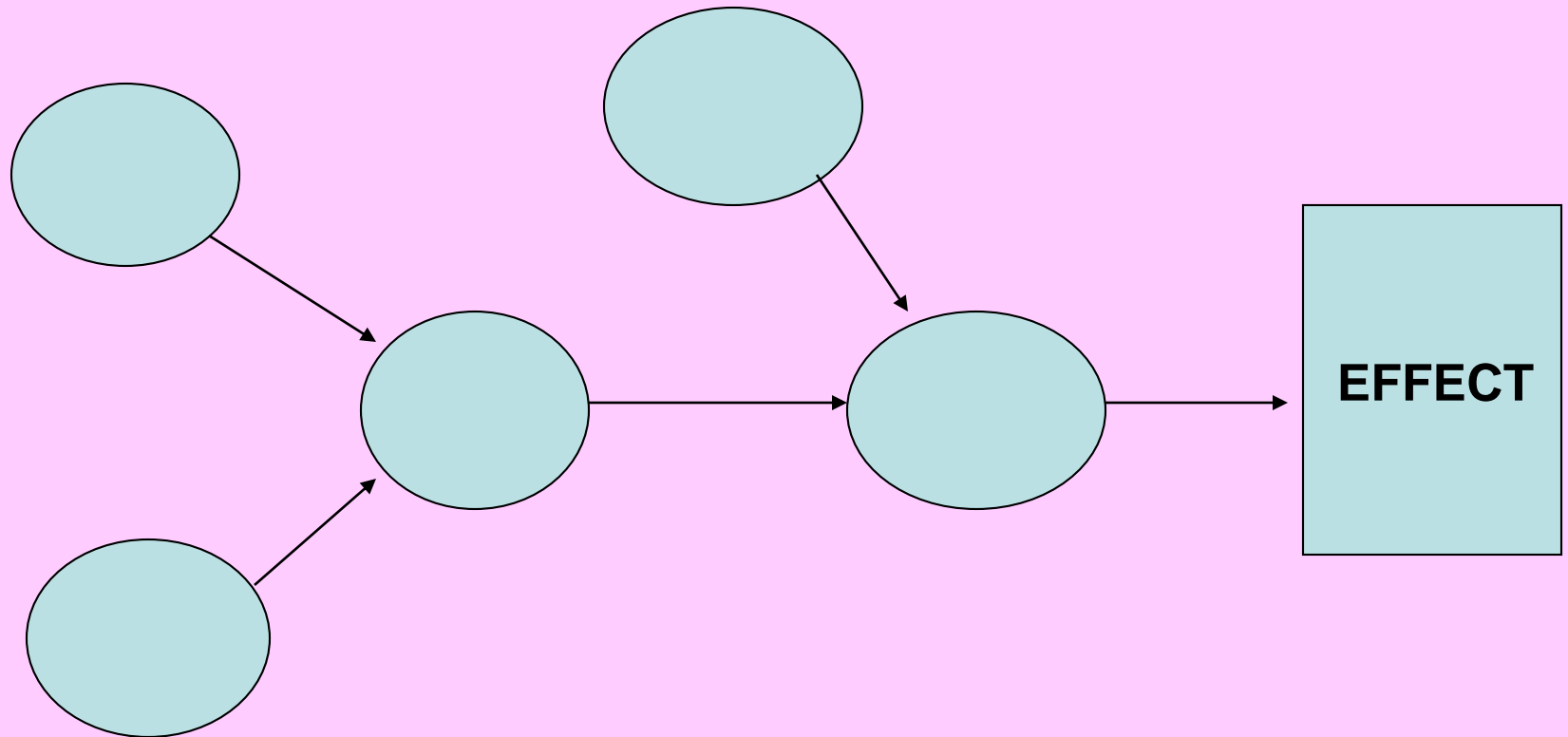
For specific persons, places, things or events with no particular chronological order needed

Time-Sequence Pattern Organizer



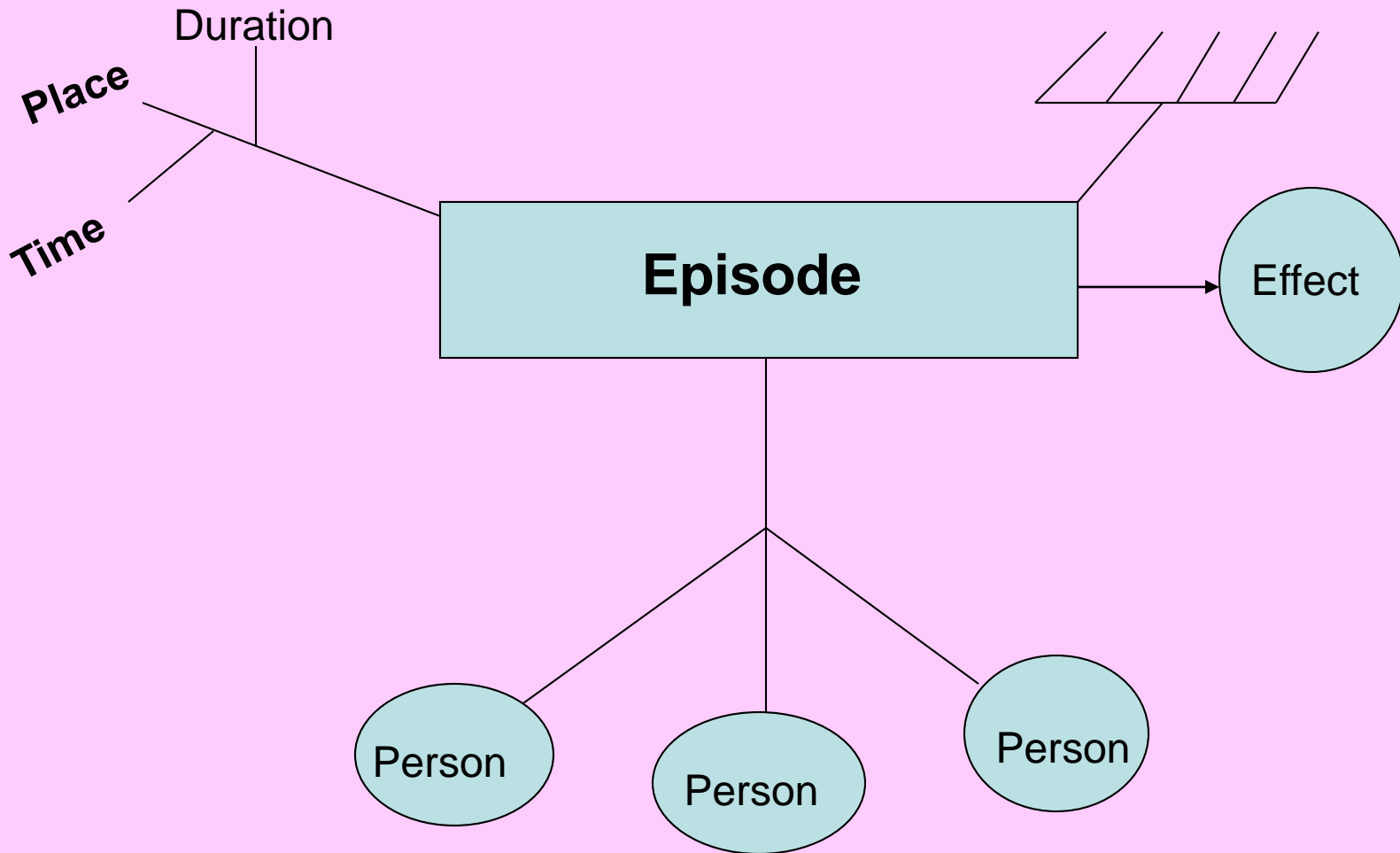
Events need to be in a specific chronological order.

Process/ Cause-Effect Organizer



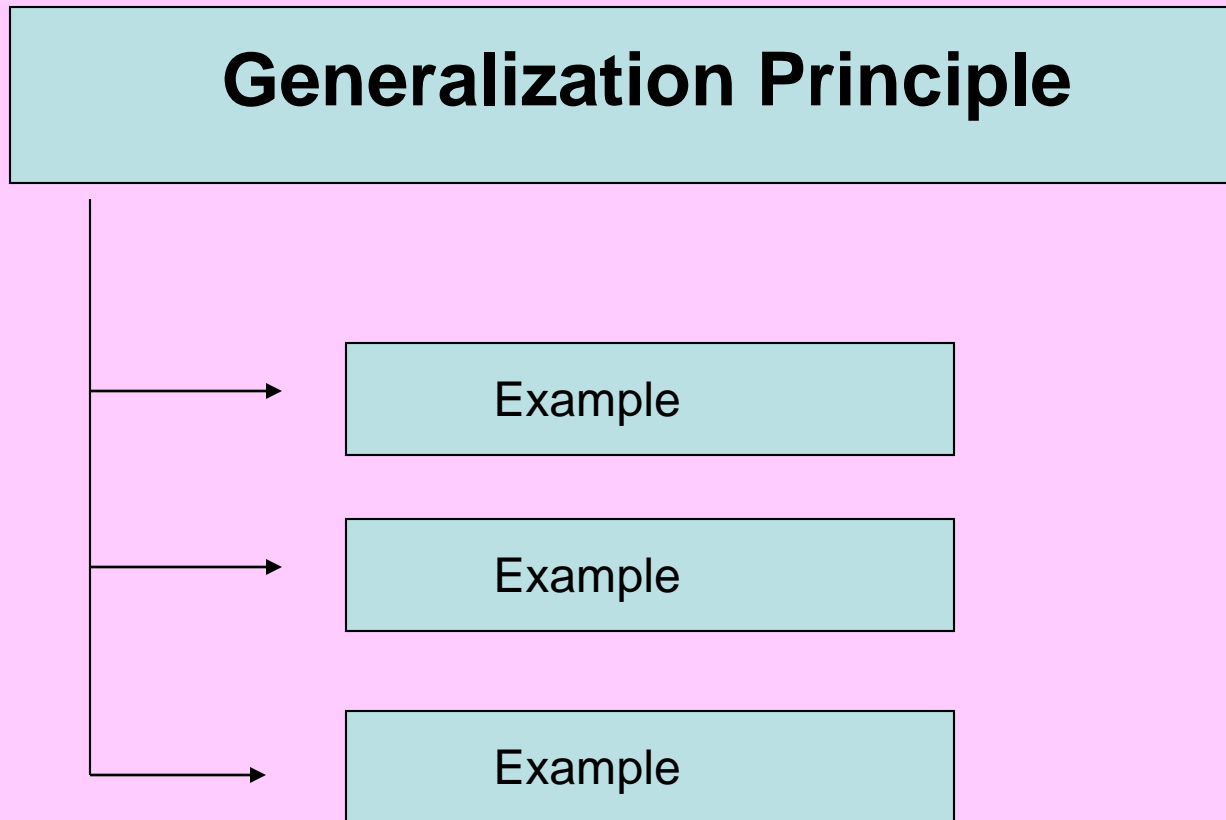
Organizes information into a causal network leading to a specific outcome or into a sequence of steps leading to a specific product.

Episode Pattern Organizer



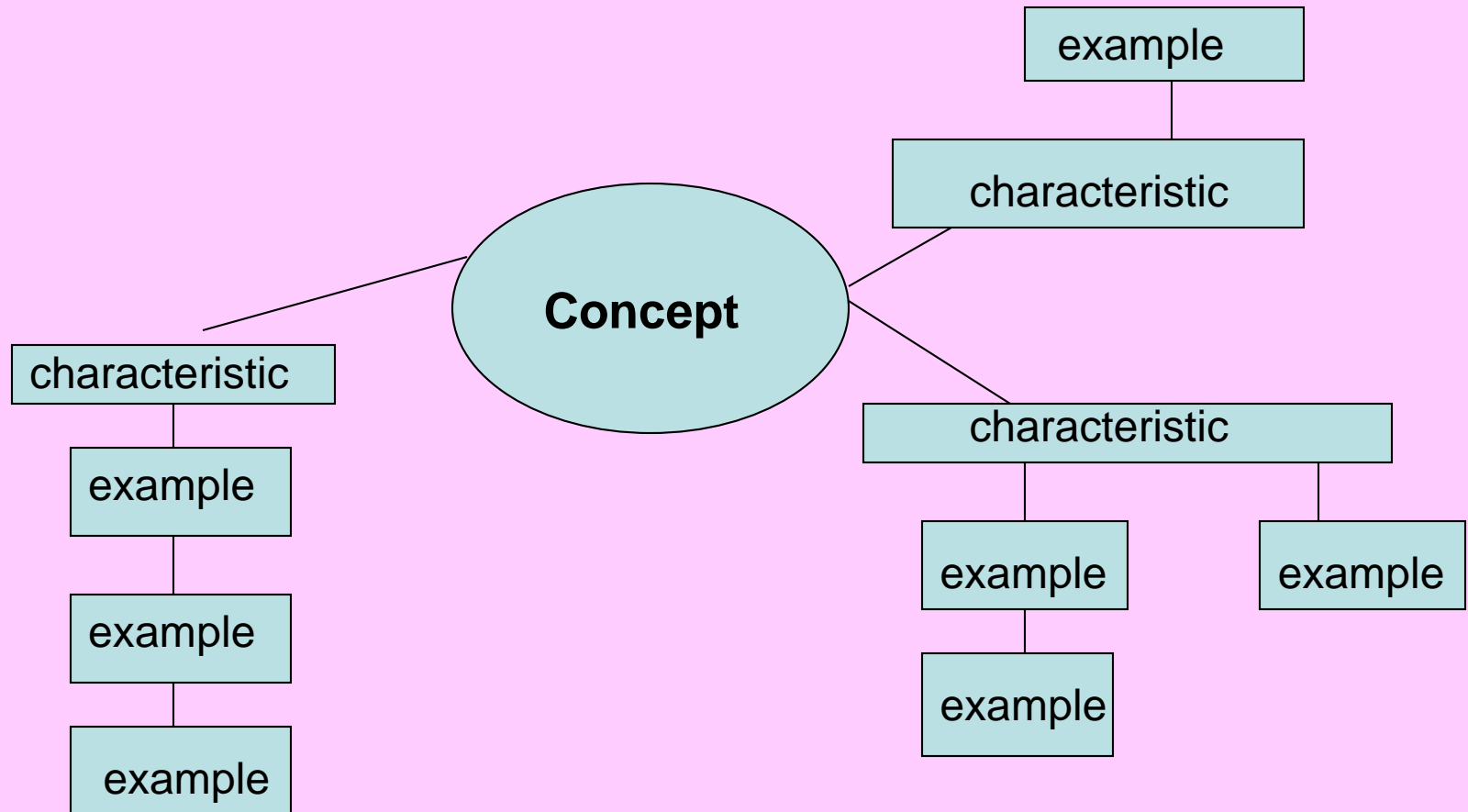
Organizes information about specific events including setting, people, duration, sequence of events, and cause and effect

Generalization/Principle Pattern Organizer



Organizes information into general statements with supporting examples.

Concept Patterns



Organizes information around a word or phrase that represents entire classes or categories of persons, places, things, and events.