

Learning with Foldables®

Foldables are an ideal way for students to engage Marzano's Nine Instructional Strategies for Learning:

- ◇ Identifying similarities and differences
- ◇ Summarizing and note-taking
- ◇ Reinforcing effort and providing recognition
- ◇ Homework and practice
- ◇ Non-linguistic representations
- ◇ Cooperative learning
- ◇ Setting objectives and providing feedback
- ◇ Generating and testing hypotheses
- ◇ Cues, questions, and advance organizers

(Barton-Arwood, S. M., & Little, M. A., 2013)

Research suggests that Foldables may have a more positive influence than lectures or worksheets in the affective domain while working as well in the cognitive domain. *(Casteel, D. B. & Narkawicz, M. G., 2007)*

What are Foldables?

Foldables are three-dimensional, interactive graphic organizers that allow students to organize information and represent relationships between concepts in a visual and kinesthetic way. Dinah Zike is attributed as a pioneer in the development and implementation of Foldables. According to Zike, "They can be used for a more in-depth investigation of a concept, idea, opinion, event, or a person or place." Often, the main idea is written on the outside of the Foldable and supporting facts are written under the tabs. Students are encouraged to self-question and self-check as they interact with the concepts by moving the individual parts or tabs of the Foldable (Zike, D., 2008).

Traditionally, graphic organizers present content in a two-dimensional paper format. Several examples include maps, webs,



graphs, charts, frames, or clusters. Foldables simply extend their function as a graphic organizer to a more kinesthetic experience for the learner. This encourages student ownership of study material, provides a kinesthetic component to teaching strategies, and promotes long-term retention across all content areas.

With Foldables:

- Students have a sense of ownership in their work that helps them

to invest in the concept or lesson.

- The subject matter / information is organized in such a way that makes it easier for students to grasp new concepts.
- No more boring worksheets.
- Students apply the strategies they are learning.
- Engagement far exceeds traditional handouts.
- Students use higher level thinking skills to construct the interactives (Casteel, D. B. & Narkawicz, M. G., 2007).

"The Hand that Teaches, the Brain that Learns"

Integrating kinesthetic creation is one solution with the benefit of immediate and deeper learning for students. Learning from building invites experimentation and exploration that engages the hand, body, and brain differently.

Different regions of the brain are involved in remembering different kinds of things. Memory of place and space mostly

occur in the hippocampus. When activity is involved, a memory is particularly vivid; it also has emotional qualities and personal significance. Memory of events and places is also crucial to our sense of self...the hippocampus and the memories it encodes play a very important part. They form an ever-changing image of ourselves in the context of our world (Dowling, C., 2012).

Kinesthetic learning activities such as Foldables may be particularly effective to form vivid and lasting memories, deeply affecting personal growth and student engagement (Zike, D., 2008).

Learning for All Students

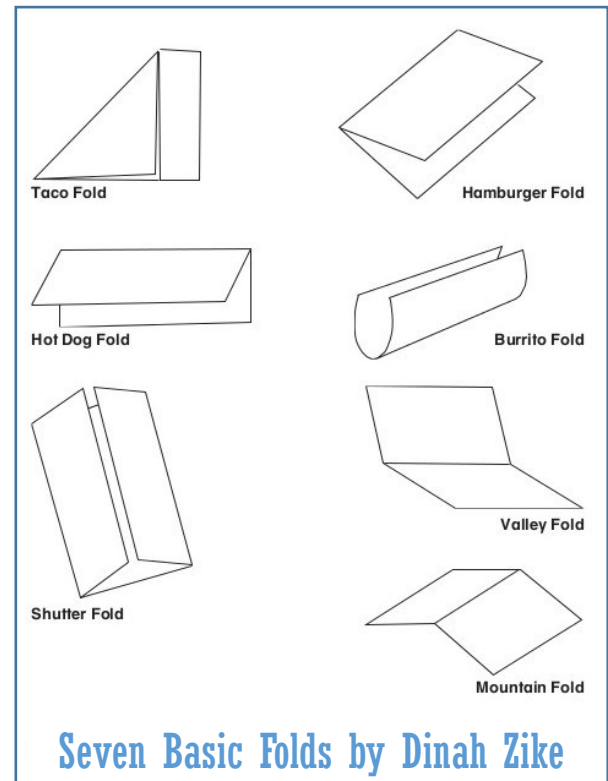
Multiple research studies support the use of graphic organizers for enhancing learning in students with various learning abilities as well as students who are learning English. This success rate extends to Foldables, graphic organizers with an added kinesthetic element.

For example, students with high-functioning autism who had challenges with planning and working memory have successfully used a Story Map Foldable in ELAR content- a framed outline of basic story elements-eliminating the requirement to hold each story element in memory while using a visual tool to display how content relates to one another in response to story questions (Stringfield, S. G., Luscre, D., & Gast, D. L., 2011).

Students who are learning English may use Foldables across all content areas to highlight keywords, classify facts, analyze problems, summarize main points, and critique or evaluating the decisions made by authors (Pang, Y., 2013).

For students with mild learning disabilities, scaffolding information through strategic color coding helps them see connections between the prewriting and drafting steps, which applies to all content areas. Foldables highlight keywords for sentence types, helping students in ELAR content areas (Ewoldt, K. B., & Morgan, J. J., 2017). Additionally, students may use Foldables as displays that arrange words via boxes, cells, arrows, or other visual cues to depict key concepts in a comprehensible format. Studies have shown these to promote effective instruction such as extended practice, explicit instruction, and feedback (Ciullo, S., Falcomata, T., & Vaughn, S. (2015).

In conclusion, Foldables can be considered an empirically validated instructional tool that teachers can use to support meaningful access to the general curriculum (Barton-Arwood, S. M., & Little, M. A., 2013).



Seven Basic Folds by Dinah Zike

How to Use Foldables

to provide students with a sense of ownership in their learning

- Replace photocopied activity sheets with student-generated print
- Present content and skills in a clear, visual, kinesthetic format
- Incorporate the use of such skills as comparing and contrasting, recognizing cause and effect, and finding similarities and differences
- Assess student progress and learning levels
- Immerse students in new and previously learned vocabulary and reading skills
- Teach students unique ways to make study guides and practice materials (Zike, D., 2008)

References

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