

# Visualization Overview

## Questions and Answers

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### 1. What is visualization?

Visualization is a process that occurs when mental images are created. Those images often begin with an actual or vicarious experience, which develops knowledge about a subject or a situation. As a creative process, visualization links experience and imagination within all forms of communication: reading, speaking, listening, and writing. It is often referred to as mental imagery, mental pictures, or simply making pictures in your head.

Visualization is a strategy and a skill, not an end of itself, which can enhance reasoning and thinking. Arnheim (1969, p. 12) states, “Thinking calls for images and images contain thought.” In the words of Aristotle, “the soul never thinks without an image.” By using visualization, writers create text that effectively conveys their thoughts.

### 2. What insights about visualization does research offer?

Psychological research suggests that our brain stores information in long-term memory in two ways: the linguistic mode and the image mode (Pavio, 1969, 1971, 1986). The linguistic form can be thought of as words and statements, whereas the image form can be thought of as mental pictures (including visions, sounds, smells, taste, and touch).

According to Robert J. Marzano and others (2001, p. 73), “The more we use both systems of representation—linguistic and non-linguistic [image-mode]—the better we are able to think about and recall knowledge. It has even been shown that explicitly engaging students in the creation of nonlinguistic representations stimulates and increases activity in the brain.”

In *Building a Sound Writing Program*, Karen Bromley (2003) reviewed current research in writing instruction and found that the writing process approach to teaching writing still stands as the most effective paradigm for helping students understand and develop as writers. Visualization can help students in every stage of the writing process, from connecting with prior knowledge to develop ideas to using visualization during revision to understand how their audiences might react to the texts they create.

### 3. Why is visualization important for writing?

Routman (2005, p. 5) believes that “teaching writing is a serious problem in many schools. We are overfocused on procedures, processes, genres, and testing and underfocused on thinking, communicating, inquiring, and exploring language.”

According to Gambrell and Koskinen (2002, p. 307), “It appears that mental imagery [visualization] facilitates the written language expression of young children, encouraging reflection and contemplation during the composing process and resulting in improved written expression.”

Visualization can be intentionally taught—guided and enhanced—to help students communicate their thinking as writers.

Visualization serves as a foundation for the creative process of writing in which an author uses imagination and prior knowledge to create text for a specific audience and purpose. Lucy Calkins (1991, p. 7) stated that “writing is lifework.” She expanded this thinking by explaining, “When we give the children of the world the words they need, we are giving them life and growth and refreshment” (p. 24).

### 4. Why is it necessary to teach visualization intentionally?

Today, fewer students seem to use visualization naturally; perhaps cultural changes have had an impact on the consistent use of this strategy. Students are bombarded with images on television, videos, and computers. Although these images are often remembered, they limit creativity because the observer is in a more passive role than a reader or writer.

Visualization is a strategy often used by skilled readers. Many students, however, need to be taught how to develop pictures in their minds, especially struggling readers who don't visualize effectively as they read. For example, Mary Frances Landenwich (2003) used a visualization strategy in her action research with her fifth-grade class. She noted that many students did not use visualization before her instruction. However, after instruction and practice, students demonstrated considerable gains in their ability to imagine a detailed scene. "Students caught on to this strategy quickly. They were very motivated by drawing and challenged themselves to add more detail to their sketches" (p. 8).

It seems unlikely that students who are unfamiliar with using visualization when reading would employ it when they write. Although few writing teachers would deny the value of visualization as a writing strategy, most ask students to use the technique somewhat randomly, often doing little to support visualization except providing a prompt that encourages students to think of or draw a picture. This approach may be insufficient for those students unaccustomed to visualizing. If we do not intentionally teach this strategy, how will students who do not visualize effectively ever learn to do so?

## **5. How can visualization instruction strengthen writing?**

Visualization helps writers use their imaginations and encourages them to think outside the boxes they often create for themselves when challenged with writing projects. Also, visualization helps students understand the need for clarity, supporting their efforts to revise by helping them understand that their texts will be the prompts for their readers' mental images.

Although writing provides students with an avenue to share their thinking and gain control of their thoughts, many students need a strategy to help them think before, during, and after they write. By deliberately visualizing their topic, students are able to add a degree of relevant detail that is absent before they visualize. Students' mental images help them clarify their purpose, shape their ideas, and expand their thinking.

Writers can use imagery as they question their writing: Does this sentence make sense? Does the organization of the text guide the reader to the desired purpose? Should information be added or deleted? A successful writer's intent must be to help his or her readers comprehend as they read. In other words, the writer has to help readers create mental images that will enable them to understand. Visualization is a strategy that helps a writer do just that.

Finally, visualization motivates students: they report that visualization makes writing more fun. Students gain understanding when teachers make the writing and thinking process visible by modeling and explaining their own mental images. Shared writing and guided writing experiences move students toward independent writing and success as a writer.

## **6. When should visualization be used to write?**

Writers can use visualization before they write, as they write, and after they write. Anytime they put together words as text, writers have the opportunity to create imagery linked to that text. Indeed, the process is circular, building on itself: the imagery suggests further text, and the additional text inspires additional images.

Writers can use visualization during every stage of the writing process: planning, drafting, revising, editing, and producing the final revision. Students picture what they want to share, the mode they should use, and their intended audience. Students should apply visualization as they choose topics and create text. After drafting, students should be encouraged to read their texts. At this stage, visualization is a particularly powerful strategy because it teaches writers to

approach their texts, not as creators, but as readers. As they examine what they have created, visualization allows them to step away from their original vision and envision their text as their reader will be visualizing it.

Just as visualization helps readers comprehend a wide variety of texts, it helps writers create those texts. Visualization may be used when writing narrative, expository, technical, persuasive, and expressive texts.

## 7. When is visualization difficult for students?

Students often report that coming up with an idea to write about is the hardest part of writing. Many students lack experience and have difficulty with creative processes. For example, when writing narratives, students must first create mental images as they decide on the characters, settings, and events in a story. The more experience students have with similar characters, settings, and events, the easier it is for them to visualize these elements. When the writer has limited experiences with a topic, subject, or text structure, he or she will have difficulty forming mental images.

Students may be able to visualize a narrative structure like a movie but not realize they should visualize differently when writing other text types (such as expository or persuasive text).

Students may need support to use this strategy when writing in other subject areas such as math, science, and social studies.

Limited vocabulary can limit visualization, creating a challenge for students and teachers. Students must have an adequate vocabulary to express their mental images; furthermore, they cannot express these images clearly unless they have an even wider vocabulary. Therefore, vocabulary instruction and extensive reading in all subject areas will help provide students with the word resources they need as they write.

## 8. What are the basic stages and goals when intentionally teaching visualization to enhance writing?

To master a new skill or strategy, a student must achieve different levels of thinking. Our review of the research, discussions with writers of all ages, observations, and professional experiences have led us to base the structure of this book on the Three Story Intellect Model (Fogarty, 1997).

- **Stage 1: Realizing.** In this stage, students begin to realize what visualization is and how it works to improve writing. Students recognize that writers create text to stimulate mental images in readers. Students realize that writers can visualize before, during, and after they write. They also realize that writers use words to describe mental images from their imagination and prior knowledge.
- **Stage 2: Understanding.** During this stage, students gain a more comprehensive understanding of how to use visualization to create text. Students understand how visualization should be used at every stage of the writing process. They learn that appropriate word choice helps convey the desired detailed images. Students understand how to use sentence fluency and writing conventions to help readers form the desired images. They learn that effective organization of the text moves the reader from one image to another. Students understand how to create text so readers can experience sensory and/or emotional images. Students learn how to use figurative language and literary techniques to deepen their readers' visualization experience.
- **Stage 3: Applying.** In this stage, students learn to apply visualization to create different text types: narrative, expository, technical, persuasive, and expressive. Students learn to create multiple text types.

## 9. How does this book provide effective strategy instruction?

According to the National Reading Panel (2000), the steps of explicit instruction typically include direct explanation, teacher modeling, guided practice, and application. These steps are explained below and connected to different elements of this book.

- **Direct explanation**—The teacher explains the visualization strategy to the students and tells them how to use it. This book contains three stages and fifteen goals that outline what students should know to use visualization effectively in writing.
- **Modeling**—The teacher models or demonstrates the strategy by giving examples from others or by sharing his or her own thinking. This book contains quotes from students sharing their thoughts about using visualization for writing. Sample lessons instruct teachers to share their thinking with examples. Numerous lessons use published texts to model how professional writers use visualization. Each goal and/or stage includes additional ideas and examples in the Reinforcing Goal sections.
- **Guided practice**—The teacher guides and assists students as they learn how and when to use this strategy. The book provides 55 lessons arranged developmentally within three stages: realizing, understanding, and applying. Each of the stages contains goals to help students gain competence in that stage.
- **Application**—The teacher helps students practice the strategy until they can apply it independently. This book provides reinforcement activities for each goal and also questions and cues for teachers to use. It also includes simple instructions and suggests texts to link literature to application activities.

Lessons were designed taking into consideration the optimal learning model (Routman, 2005): lessons move students from dependence to independence as writers. This model begins with teacher demonstration and graduates to shared demonstration. Effective strategy instruction can be accomplished using cooperative learning as teachers provide guidance. The ultimate goal is for students to become independent, lifelong writers.

## 10. How is visualization for writing assessed?

Writing produces a tangible product. Thus, one obvious way to assess students' ability to visualize when writing is to examine that product. Teachers can gather before and after samples of students' writing. Students whose writing demonstrates little or no change may need some additional help with visualization. For example, we asked students to write about a particular experience, (i.e., the most interesting part of a career fair day in which they participated). Their paragraphs were brief and vague. Then they were asked to visualize the rooms, the presenters, the discussions they heard, even the temperature of the room. The second paragraphs were much more detailed. Many were, of course, more descriptive of the rooms and the presenters and of what was said, but many were simply more detailed as to the content of the presentations and the activities. Obviously, visualization helps students recall events in more vivid and exact detail. Another way to assess students' visualization skills is to ask them to self-evaluate. Students can be asked to write a reflection on their writing process, including their use of visualization. Examples of students' writing at different developmental levels are included in this book. The writing pieces are categorized as emergent, growing, blooming, and producing. (See the explanations in Using the Lessons beginning on page xiii.) Compare your students' writing pieces to note their developmental level. Respond to the strengths observed and focus instruction to continue developing each writer to his or her full potential.