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Creating Pedagogically Effective and Visually Appealing Instructional Slides: Design Tips for Language Educators

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Creating Pedagogically Effective and Visually Appealing Instructional Slides: Design Tips for Language Educators

For multilingual learners in English-dominant schools, visuals often serve as an essential scaffold to increase the comprehensibility of content and language instruction. Indeed, the recommendation for English language teachers to use visuals is widespread, as is the utilization of PowerPoint or Google Slides for instructional purposes. Nonetheless, relatively few teachers receive professional preparation on how to design slides that are attractive, effectively convey information, and support comprehension. As a result, students are too often subjected to slides that are boring, unsightly, and/or difficult to read or understand. The use of poorly designed slides not only compromises their well-intended instructional purpose, it can also come at a cost to teachers' time and energy. If they are going to invest the time to build instructional materials, teachers want the materials to successfully engage students and support desired learning outcomes. Fortunately, this problem can be quite easily remedied by applying basic principles of graphic design—principles that are foundational in other enterprises such as web design, publishing, marketing, and art, but that appear less often in educational contexts. The purpose of this paper is to illustrate five basic principles of graphic design language teachers can apply to design visually appealing and pedagogically effective slides.

Why Graphic Design Matters

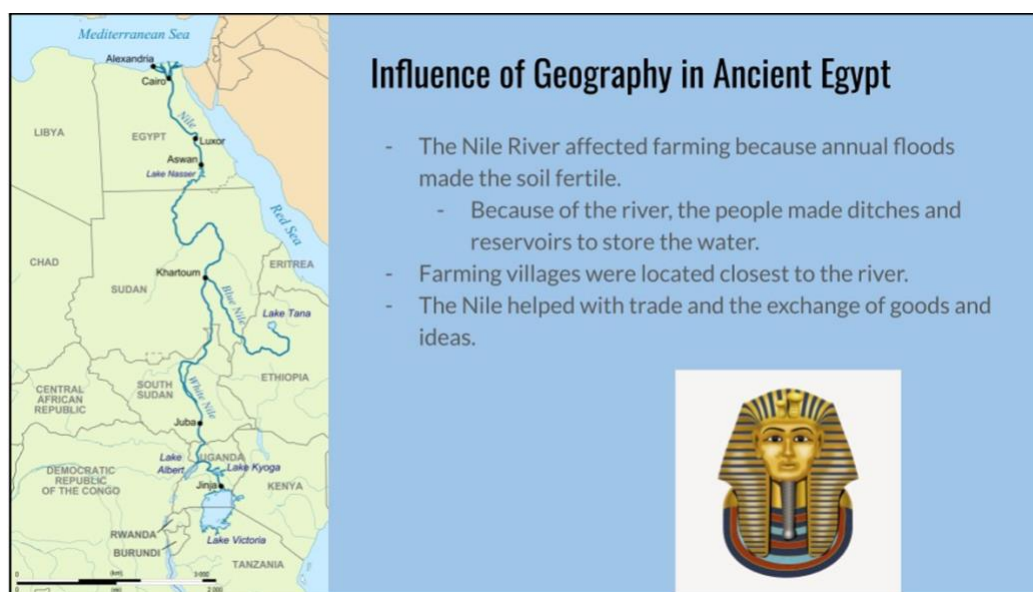
Even though visual aesthetics carry their own import, design is not just about making things attractive; it is about making ideas accessible, comprehensible, and appealing. In fact, some scholars consider visual or graphic design as its own language with a type of grammar and meaning-making potential aside from and in conjunction with words

(Kress & Van Leeuwen, 2020). Consider, for example, how you interact with a well-designed website that is inviting and easy to use. Compare that experience with your reaction to a confusing and clunky website. Chances are, you did not stay long on the poorly designed website even if the information or products housed on that website had real merit. The design of a website is more than decorative as it is crucial to functionality and the user experience. Similarly, the design of instructional materials can directly influence students' engagement and learning outcomes, for better or for worse (Kleckova & Svejda, 2019). In short, the purpose of applying graphic design principles to the creation of slides and other instructional materials is about “feeling the content more powerfully” and “learning the message more effectively” (Sansone, 2015, p. 10).

For example, suppose a teacher is preparing a lesson for a seventh grade world history class. Consider the following slide options for introducing how ancient Egyptians utilized the Nile River.

Figure 1

Example: Slide That Does Not Utilize Design Principles (Slide A)



Influence of Geography in Ancient Egypt

- The Nile River affected farming because annual floods made the soil fertile.
 - Because of the river, the people made ditches and reservoirs to store the water.
- Farming villages were located closest to the river.
- The Nile helped with trade and the exchange of goods and ideas.

Figure 2

Example: Slide That Applies Design Principles (Slide B)



Note: Photo by Marcel Crozet <https://www.flickr.com/photos/ilopictures/49846234766>)

Both slides depict similar concepts. However, the design of Slide B more effectively supports multilingual learners' understanding. The large image of the Nile River captures attention and provides relevant schema for the written information. The strategic use of key words instead of full sentences lowers the language demands of the slide, and the arrangement of these key terms visually represents the cause/effect relationship of the Nile River on ancient Egyptian society. In contrast, Slide A is dense with text and lacks visual cues signaling conceptual relationships. With Slide A, in addition to comprehending the teacher's oral instruction, students are confronted with making sense of the vocabulary and syntactic demands of the written text, the information conveyed in the map, and the small image of a pharaoh's death mask. Moreover, the body text is difficult to read because of the font size and color.

While one could argue that the second slide is simply more aesthetically pleasing—a merit on its own (Bader & Lowenthal, 2018)—visual design also has real consequences for learning and learner accessibility. For example, cognitive load theory suggests that poorly designed multimedia instructional materials can overload working memory (Castro-Alonso et al., 2021). Visual design may also affect how learners feel about instructional materials. Does the first impression of a slide elicit feelings of confusion or overwhelm, or does it produce a sense of clarity and confidence? While these principles apply to all learners, graphic design has particular significance for language learners. As Kleckova and Svejda (2019) explained, effective design enhances comprehensibility and “allows learners to feel at ease, engaged, and motivated” whereas poor design “creates barriers that burden the language learning process” (p. 18).

Five Principles of Graphic Design

While the application of basic graphic design principles can directly enhance the pedagogical potential of slides, these principles are not intuitive and rarely show up in professional development or teacher preparation programs. Yet without this understanding, designing instructional materials is akin to playing a game without knowing all the rules. It is not necessary for language teachers to become accomplished graphic designers, but utilizing the fundamental design principles listed below can go a long way towards the creation of high-quality slides.

1. Size and Scale
2. Alignment
3. Contrast
4. Negative Space
5. High Quality Images

These principles are ubiquitous in the literature (e.g. Adobe Express, 2022; Kleckova &

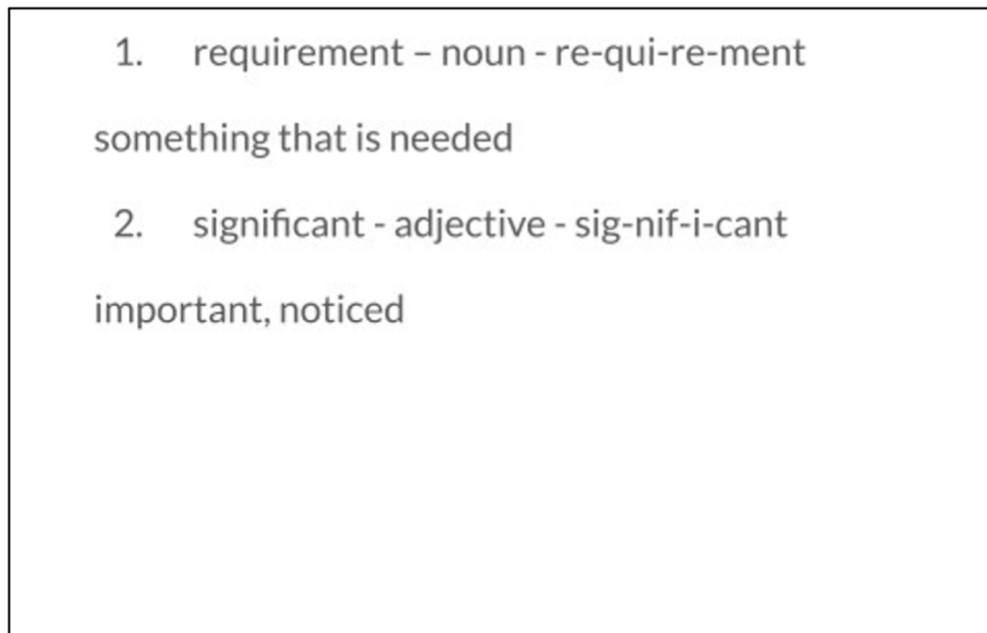
Svejda, 2019; Kuba, 2021; Pole & Parashar, 2020) and are accessible for educators without expertise in graphic design.

Size and Scale

The principle of size and scale is concerned with learners' visual perception of a slide. At the most basic level, visuals must be large enough to be seen. In the case of a slide, the font size must be big enough that students in the back of the classroom can easily read the text. Usually, this means avoiding anything less than 18-point font size. The second aspect of size and scale has to do with establishing a focal point and visualizing conceptual relationships through size, arrangement, and font effects. To illustrate: nothing in the design or arrangement of Slide C signals which words are most important, indicates their conceptual relationship, or provides a clear focal point.

Figure 3

Example: Slide Without Purposeful Use of Size and Scale (Slide C)



In contrast, Slide D utilizes size, color, arrangement, and text effects to clearly indicate the relative importance of the words on the slide. The vocabulary word (i.e., large, dark font) and the definition (i.e., large, red font) are the most important elements. Additionally, the respective font size and color signal categories; the large, dark font can be consistently used for vocabulary words and the somewhat smaller, red font can be used for definitions. The eye is able to quickly notice these patterns which promotes comprehension and retention.

Figure 4

Example: Slide Using Size & Scale to Display Text Categories (Slide D)



Alignment

Imagine reading a book in which sentences were haphazardly arranged on the page like this:

Graphic design supports Learners' comprehension, engagement, and thinking.

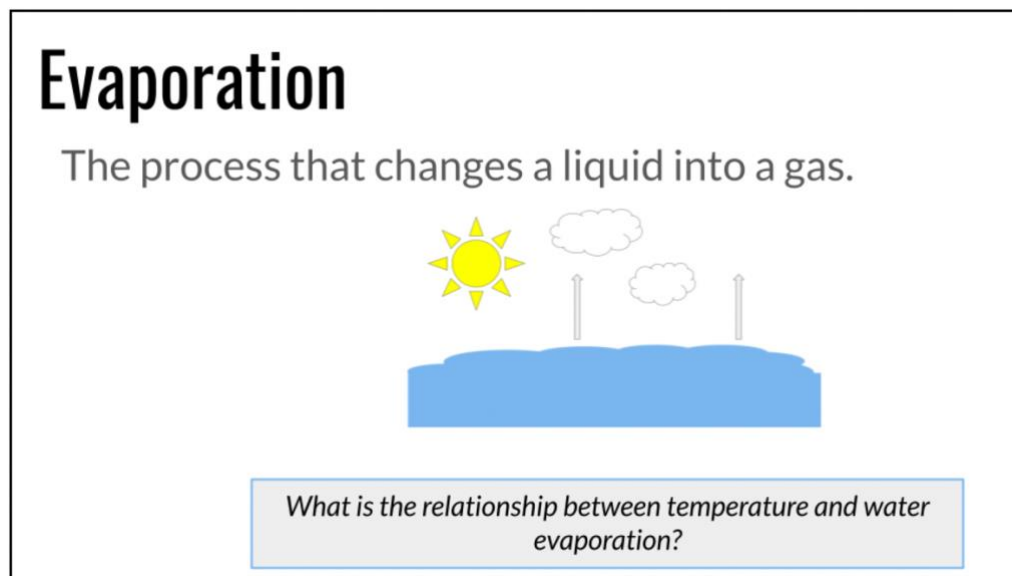
This reading task would quickly become a formidable puzzle that detracts from the meaning and purpose of the text. Although obviously an extreme example of improper alignment, it is meant to illustrate the relationship between alignment and comprehension. Because we are used to conventions for presenting text (e.g., indenting a line indicates a new paragraph with the subsequent lines left-justified), we expect that deviations from those conventions have a special meaning or purpose.

The principle of alignment reminds us to be intentional about aligning the text and other elements on a slide. Logical, consistent alignment makes the content more easily accessible and visually appealing. Alignment considerations apply to the arrangement of all the elements on the slide, not just the text. In general, balanced spacing between and among elements results in a more visually pleasing effect, so it is imperative to pay attention, for example, to whether there is about equal distance between the top and bottom edges of the slide. The “rule of thirds” is also relevant here. To apply the “rule of thirds,” divide the slide into three equal rows and three equal columns. Then arrange slide elements in relation to these lines and consider clustering elements in thirds.

Slide E depicts a slide that does not follow alignment principles. While the alignment does not egregiously affect comprehension, it does not mirror how published text is typically presented and looks less professional. The outer margins are inconsistent, the image is randomly placed on the slide, the question at the bottom of the slide is oddly centered, and the three main text elements are not intentionally justified.

Figure 5

Example: Slide That Violates Alignment Principles (Slide E)



Specific alignment guidelines:

- a. As a general rule, left-justify chunks of text.
- b. Strive for equidistance between elements and/or arrange elements within the boxes created by dividing the slide into thirds.
- c. Let your tech tool do the work. Common slide applications have special arrangement tools that will distribute and align elements for you.
- d. Use grid lines while designing materials to aid your layout.

Slides F and G depict how to use grid lines to achieve intentional alignment.

Figure 6

Example: Slide Demonstrating the Rule of Thirds Grid (Slide F)

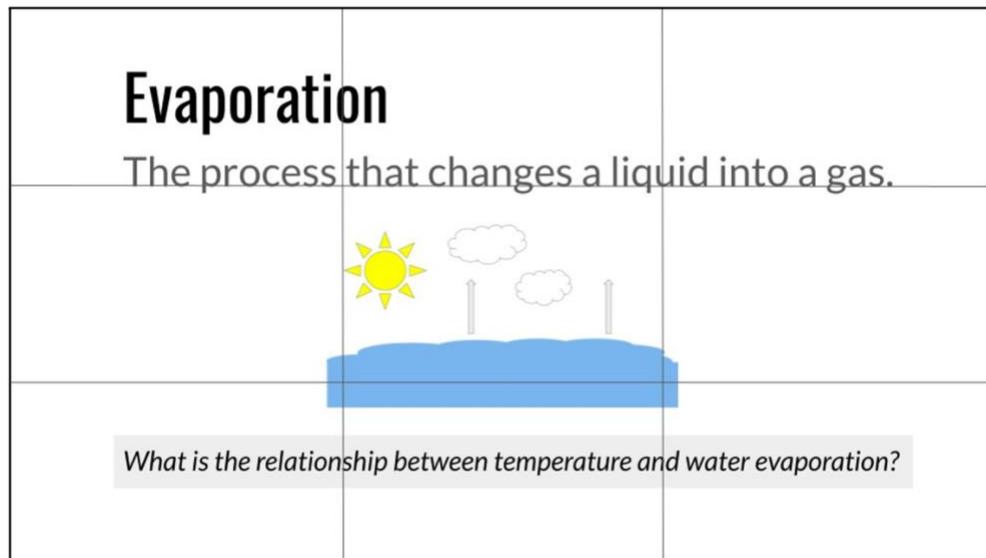
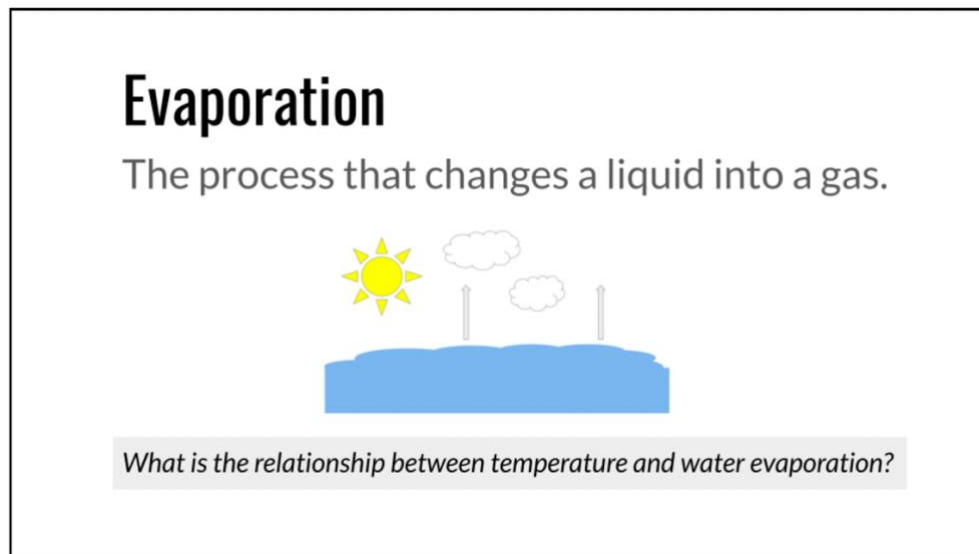


Figure 7

Example: Slide Following Alignment Principles (Slide G)

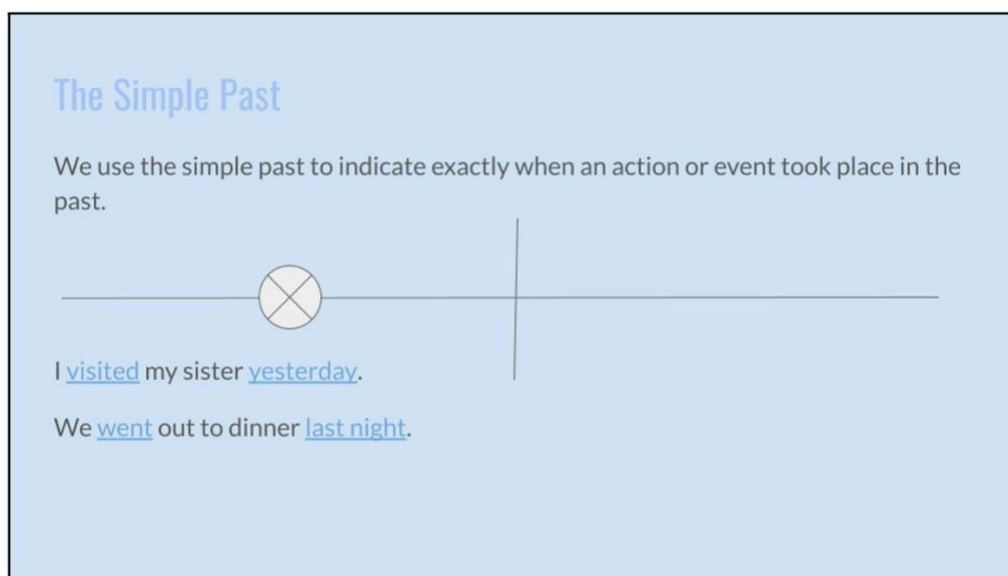


Contrast

The principle of contrast is to choose colors and fonts that offer a clear and appealing visual contrast. A common *faux pas* is using too many fonts and/or colors, or utilizing fonts and colors that do not pair well. For example in Slide H, the color contrast is not pronounced enough for the text to clearly stand out from the background.

Figure 8

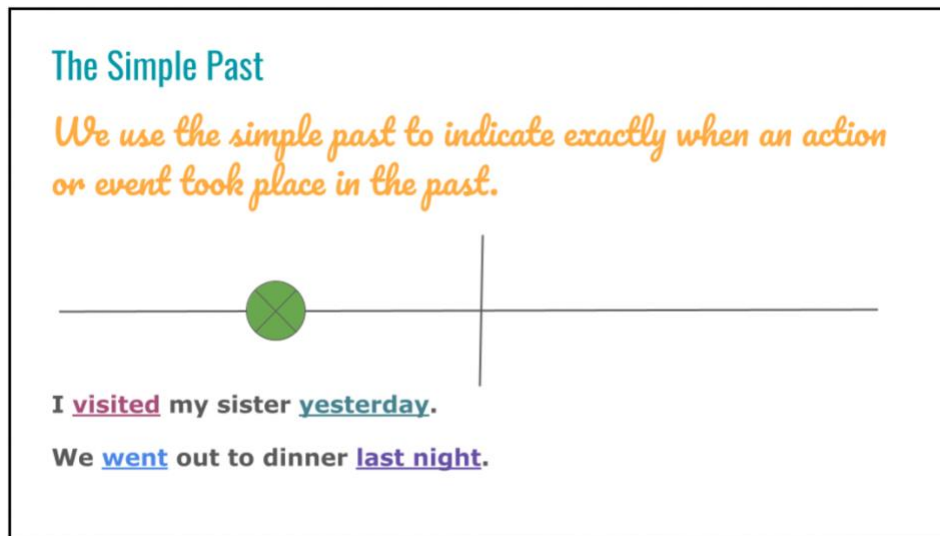
Example: Slide With Poor Contrast (Slide H)



In Slide I, the choice of colors and fonts is also ineffective. There are too many colors and fonts. The orange font is difficult to read, especially for multilingual learners who may be unfamiliar with cursive script. Additionally, the use of varied colors is not signaling anything purposeful—it is just randomly colorful.

Figure 9

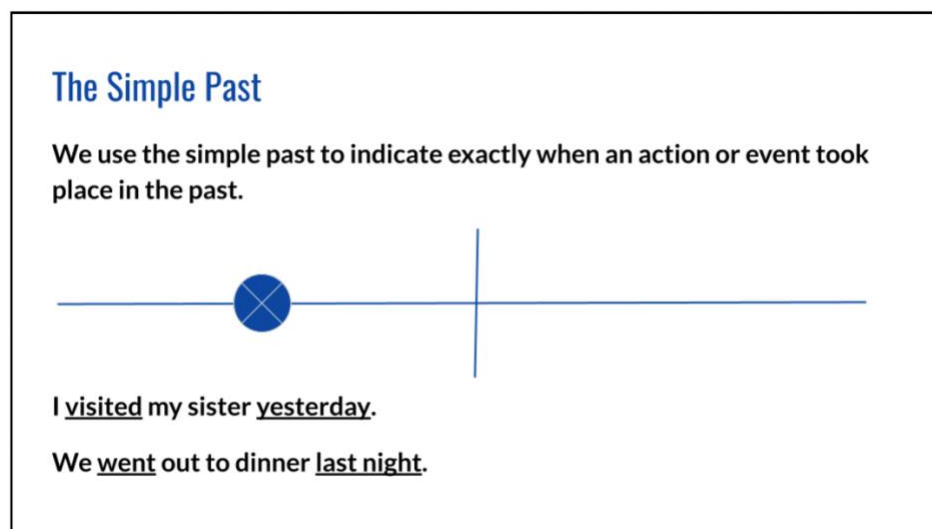
Example: Slide With Ineffective Use of Font and Color (Slide I)



However, Slide J effectively applies the contrast principle to support learners' comprehension of the information. The text clearly stands out from the background and the two colors complement each other. The font is highly legible.

Figure 10

Example: Slide With Effective Use of Contrast (Slide J)



The key here is simplicity. When it comes to colors and fonts, less is more. Fortunately, recommendations for effective fonts and color palettes are readily available online. Selecting a pair of fonts and a simple color palette to use consistently can make slide design more efficient.

Negative Space

In graphic design, negative space refers to the area of empty space around and between elements on a canvas. Empty space is a good thing! It gives the slide or document “room to breathe” and makes it easier for learners to visually process. Think of the difference between a very cluttered room and a well-organized room that has been purged of unnecessary things. Sometimes, educators act as though they are on a pay-per-slide subscription and are inclined to squeeze as much text/information on a slide as possible. The effect of cramming too many elements on a slide is three-fold: (a) it can be daunting to the learner, (b) it can be hard to read/see, and (c) it focuses learners’ attention on reading the slide instead of listening and interacting with the lesson. Moreover, instead of orienting the learner to a key concept or conceptual relationship, a cluttered slide is not able to effectively convey the hierarchy of ideas presented.

For example, Slide K is crowded with text, which could make it intimidating and more difficult for a language learner to process.

Figure 11

Example: Slide With Too Much Text (Slide K)

How is Visualizing Important?

- Aids readers in processing information which supports comprehension of text.
- Makes reading text feel more real to readers.
- Encourages active reading and deep engagement with text.
- Helps readers take ownership of the text as they fill in details that the author does not spell out. This deepens their understanding.

In contrast, Slide L incorporates negative space. The design focuses learners' attention on key points, is easy to read, and includes an image to support comprehension.

Figure 12

Example: Slide With Appropriate Amount of Text and Negative Space (Slide L)

How is visualizing important?

- Aids processing and comprehension
- Helps the text feel real
- Encourages active reading
- Helps readers take ownership



Note: Photo by R. J. Reyes https://commons.wikimedia.org/wiki/File:Navy_binoculars.jpg

The principle of negative space gives teachers permission to spread information across as many slides as needed. Having more slides with more empty space is often preferable to fewer slides filled with text. Depending on the purpose of the slides, complete sentences might not be necessary or desirable. Instead, populate each slide with just a few key words/phrases and one or two large and compelling images.

High-Quality Images

The fifth design principle is to use high-quality images. In general, an actual photo is more interesting and appealing than clipart. A number of websites (e.g., Unsplash.com, Pexels.com) host large collections of open-source images which can be used without copyright restrictions. In addition to selecting quality images, be sure the file resolution is large enough. Avoid grainy or unprofessional images. Finally, even when using open-source images, it is courteous—and sometimes required—to provide attribution for your image sources.

Slides M and N illustrate the superior effect of using high quality images. Each slide is intended to represent the word *sad* in an English Language Development class for newcomers. While both images effectively depict sadness, the photo on Slide N is more compelling and evokes an emotional response, thus contributing to learners' comprehension, engagement, and memory.

Figure 13

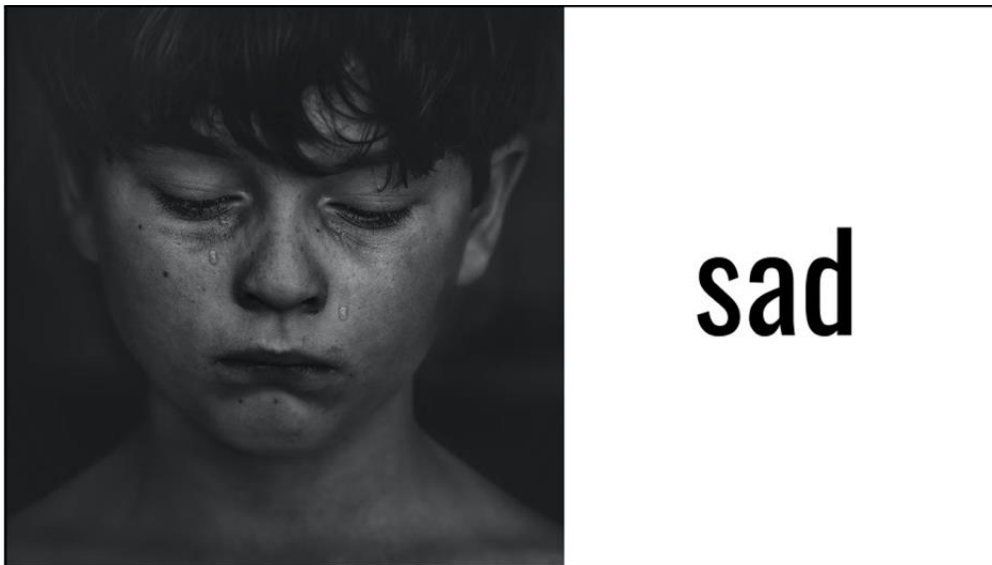
Example: Slide With Basic Clipart (Slide M)



Note: Crying female from <https://freesvg.org/crying-female>

Figure 14

Example: Slide With High-Quality Photo (Slide N)



Note: Photo by [Kat J](#) via [Unsplash](#)

Conclusion

Supporting content and language instruction with slides is both a common and promising practice. However, slides in and of themselves do not guarantee effective instructional support. If poorly designed, they can even hinder learning. Thus, language teachers' ability to design instructional materials that are visually appealing and pedagogically effective matters. By applying the five basic principles of graphic design discussed in this article, teachers can more effectively communicate meaning, teach conceptual relationships, and help learners connect to the content.

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