

How do you create  
visuals that stimulate  
learning



Creating Visuals That Stimulate Learning. There are several ways of creating visuals that stimulate learning. The research centers on the factors of creating visuals. The research focuses on the different theories of visual design. Visual design significantly affects the stimulation of the learning process. First, Ruth Clark (2010) emphasizes words create visuals that enhance the learning process. Words are the easiest and clearest available graphic tool. Words can be given a font of 200 for emphasis. The visuals' hierarchy of words can be given a bold, underlined, italicized, superscript, subscript, shadow, emboss, engrave and other font makeover. Words can be written in Ariel, Times roman, Broadway, Modern, Goudy Stout, Lucida Fax, Stencil, or Show card gothic fonts. Words can command, insist, entice, explain, empower, plead, or prod the visual readers to implement the visuals' instructions. The words can stimulate learning new knowledge, affirm prior knowledge, or negate prior knowledge. Next, shapes are used to create effective visuals that stimulate the learning process. Writing words inside each square box of the organization chart imparts learning the relationship between each box to the other boxes within the organizational chart. Charting is good example of the chunking process where volumes of information are grouped under smaller (box) units. Writing words in each of the three triangle ends indicates the importance of the words written on one triangle side to the words written on the other triangle sides. Drawing an arrow between two rectangular shapes indicates the independence or dependence of the words or variables inside one rectangular shape to the words or variable inside the other rectangular shape. For the opening visual, an oval or other shape increases the communication process. Shapes comply with the figure -ground principle stating the visual output's audiences have

the normal tendency to see edges that precipitate to doing separate figure elements from ground elements (Clark, 2010). Further, the implementation of the Gestalt principles creates visuals that enhance the learning process. The principles state the visual output's audiences describe how the whole visual product is greater than the sum of its parts. The Gestalt principle of closure states some individuals prefer seeing the visual's big picture on the whole, instead of the details. The Gestalt principle of contiguity shows some individuals focus on the path from one set of information to the next, as it is shown in the organizational chart or the laboratory experiment step visual outputs. The Gestalt principle of similarity states that the visual output's audiences focus on determining the design's patterns. The Gestalt principle of Proximity states the visual output's audiences focus on the proximity or the absence of the information proximity. In addition, the Gestalt principle of experience states that the visual audience will use prior experiences as a basis for interpreting the visuals (Clark, 2010). Furthermore, the background enhances the visual output's learning stimulation process. The visual audience will surely be surprised to see a picture of a person wearing Eskimo costume on a desert background. The words "face your fears" on background showing the top of Mount Everest increases the intensity of the message. The red heart shape's image is emphasized by a blue background color, compared to red background color (Clark, 2010). And, the choice of words, pictures, or design stimulates learning, is according to the multimedia principle. Some words, pictures, or design disinterest the visual viewers. The multimedia principle states that the learning process is significantly increased by incorporating words and pictures into the visual design. One group of words draws curiosity from the visual viewers. Another group of

words creates loyalty among the visual audiences. The third group of words, pictures, or design persuades the visual audiences to act. The fourth group of words, pictures, or design imparts convincing information to the visual audiences. The fifth group of words, pictures, or design negates the visual audiences' current beliefs, perceptions, or understanding (Clark, 2010). In addition, Willis Thomas (2011) reiterates the ACE principle enhances the creation of visuals that stimulate learning. The visual creator must analyze whether the visual design complies with visual creator's learning objective. Analysis also includes determining the visual audiences' current knowledge on the topic. The visual creator must create visuals that focus on the essence of the knowledge he or she will impart to the visuals' audiences (using examples to explain the math theory of adding numbers, etc.). Creation includes generating outputs that incorporate the contrast of all the visual design elements (words, shapes, color, depth, space, etc.) with a visual output that deeply entrenches the new knowledge into the visual audiences' long term memory. Lastly, the visual creator must evaluate whether the visual output works by complying with the standards of the visual creator's lesson plans or learning objectives (the visual design complies with lesson plan stating the pupils will know how to add after the visual design output is discussed, etc.). Evaluation includes ensuring that the simultaneous presentation of text and images facilitates the cognition or learning process. Based on the above discussion, there are many avenues to create visuals that stimulate learning. The words, pictures, shapes, and other factors of the visual design output affect the learning process. The Gestalt theory and the ACE process enhance the visual design outputs. Indeed, visual design significantly influences the stimulation of the learning process.

References: Clark, R. (2010). *Graphics for Learning: Proven Guidelines for Planning, Designing, and Evaluating Visuals in Training Materials*. New York: J Wiley & Sons Press. Thomas, W. (2011). *The Basics of Project Evaluation and Lessons Learned*. New York: CRC Press.