

Scientific Poster

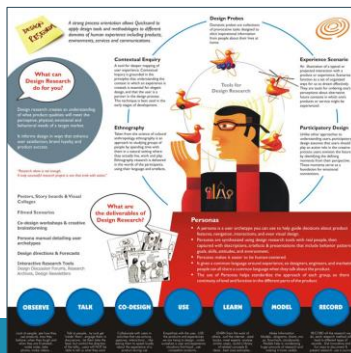
(some) design tips

Right and wrong do not exist in graphic design.
There is only effective and non-effective communication.
Peter Bilak



Infographics

- <https://infogram.com/>
- <https://venngage.com/blog/>
- <https://www.kmeverson.org/infographics.html>
- <https://sixrevisions.com/graphics-design/40-useful-and-creative-infographics/>



Infographics

- <http://aaaspolicyfellowships.org/sci-fly/pictures-worth-1000-words-visualizing-data-infographics>
- Randy Krum's website:
 - <http://www.coolinfographics.com/>
 - Software tools: <http://www.coolinfographics.com/tools/>
- <http://flowingdata.com/>
- <http://blog.threestory.com/wordpress/topics/data-visualization>
- <http://researchexplainer.com/tag/infographic/>
- <https://infogr.am/>
- <http://piktochart.com/>
- <http://visual.ly/>

icons

- Don't use ugly clip art
- <https://thenounproject.com/>

Word clouds

- <http://www.wordle.net/create>
- <http://www.tagxedo.com/>
- <http://tagcrowd.com/>

articles background betterposters blog
blogspot chart clear color com
communication curtis designing details edu
examples flow gradient html http
huttenhower images internships journal life
makesigns materials nature org paper poster
posterdesign powerpoint presentation printing research
scientific some-advice-for-the-lonely-stu SOS sources start
student template text tips title trop unnecessary view
winawer WWW



Principles of Graphic Design

Sources:

- http://en.wikipedia.org/wiki/Design_elements_and_principles
- <http://www.johnlovett.com/test.htm>
- <http://abduzeedo.com/>
- <http://www.youthedesigner.com/>
- issuu.com/collectivememory/docs/poster-design
- <http://justcreative.com/2008/06/13/how-to-design-learn-the-basics/>
- Williams, Robin. *The Non-Designer's Design Book: Design and Typographic Principles for the Visual Novice*. 2nd edition. Berkley, California: Peachpit Press, 2004.
- <http://aea365.org/blog/dvr-tig-week-mandi-singleton-on-six-steps-for-creating-an-attractive-engaging-and-informative-poster/>



Where Do You Look

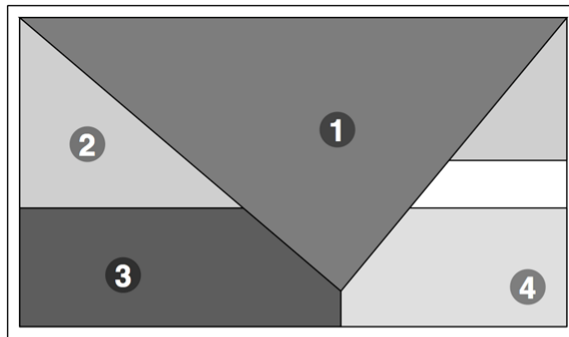
First?



Where Do
You Look

First?





- 1 Main Focus Area**
Location of research fundamentals: Title, Abstract, Results, Conclusion.
- 2 Secondary Emphasis**
Location of important info: Intro, Results, Summary
- 3 Supporting Area**
Location of supporting info: Methods, Discussion
- 4 Final Info Area**
Location of supplemental info: References, Acknowledgments, Personal information

http://writing.wisc.edu/Handbook/presentations_poster.html

CRAP

CONTRAST



Unique elements in a design should stand apart from one another. One way to do this is to use contrast. Good contrast in a design - which can be achieved using elements like color, tone, size, and more - allows the viewer's eye to flow naturally.

To the left, you can see 4 ways to create contrast in your design.

ALIGNMENT

Proper alignment in a design means that every element in it is visually connected to another element. Alignment allows for cohesiveness; nothing feels out of place or disconnected when alignment has been handled well.



PRINCIPLES of DESIGN

quick reference poster

REPETITION

Repetition breeds cohesiveness in a design. Once a design pattern has been established - for example, a dotted border or a specific typographic styling - repeat this pattern to establish consistency.

The short version?

Establish a style for each element in a design and use it on similar elements.



PROXIMITY

Proximity allows for visual unity in a design. If two elements are related to each other, they should be placed in close proximity to one another. Doing so minimizes visual clutter, emphasizes organization, and increases viewer comprehension.

Imagine how ridiculous it would be if the proximity icons on this graphic were located on the other side of this document.



a handy *paper/leaf* resource

<http://paper-leaf.com/blog/2012/10/principles-of-design-quick-reference-poster/>

KU LEUVEN

LINE



A line is a mark between two points. There are various types of lines, from straight to squiggly to curved and more. Lines can be used for a wide range of purposes: stressing a word or phrase, connecting content to one another, creating patterns and much more.

SHAPE



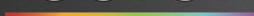
Height x width = shape. We all learned basic shapes in grade school - triangles, squares, circles and rectangles. Odd or lesser seen shapes can be used to attract attention.

There are three basic types of shape: geometric (triangles, squares, circles etc), natural (leaves, animals, trees, people), and abstracted (icons, stylizations, graphic representations etc).

VALUE

Value is how light or how dark an area looks. A gradient, shown above, is a great way to visualize value - everything from dark to white, all the shades in-between, has a value. Use value to create depth and light to create a pattern; to lead the eye; or to emphasize.

COLOR



Color is used to generate emotions, define importance, create visual interest and more. CMYK (cyan/magenta/yellow/black) is subtractive; RGB (red/green/blue) is additive.

Some colors are warm and active (orange, red); some are cool and passive (blue, purple).

There are various color types (primary to analogous) and relationships (monochromatic to triad) worth learning more about as well.

TEXTURE



Texture relates the to surface of an object, the look or feel of it. Concrete has a rough texture, drywall has a smooth and subtle texture. Using texture in design is a great way to add depth and visual interest. Printed material has actual, tactile texture while screen material has implied texture.

ELEMENTS OF DESIGN

quick reference sheet

SIZE



Size is how small or large something is: a small shirt vs. an extra large shirt, for example. Use size to define importance, create visual interest in a design (via contrasting sizes), attract attention and more.



Space is the area around or between elements in a design. It can be used to separate or group information, but is effectively to: give the eye a rest, define importance, lead the eye through a design and more.

SPACE

paper/leaf

created by Paper Leaf Design, www.paper-leaf.com

KU LEUVEN

Principles of Graphic Design: CRAP

- **Contrast:**

"If two items are not exactly the same, then make them different. Really different."

- **Repetition**

"Repeat some aspect of the design throughout the entire piece."

- **Alignment**

"Nothing should be placed on the page arbitrarily. Every item should have a visual connection with something else on the page."

- **Proximity**

"Group related items together... so the related items are seen as one cohesive group rather than a bunch of unrelated bits."

<http://www.nhsdesigns.com/principles/>



Contrast

- If elements on your page are not the same, make them very different.
- Contrast in size, color, etc.
- Make a visual splash where parts of the page stand out.
- Contrast attracts the attention of your viewers.

Taken from <http://lab.christianmontoya.com/designing-with-crap/designing-with-crap-cc.pdf>

CONTRAST



Contrast



<http://www.nhsdesigns.com/principles/contrast/page02.php>



Repetition

- Repeat visual elements throughout the page.
- Repetition develops the organization and creates a strong brand
- Repetition focuses on consistency.
- Repetition comes through unity and consistency in font, alignment, headings, etc

REPETITION
REPETITION
REPETITION

Taken from <http://dribbble.com/shots/1000000/Contrast-design-with-consistency>



Repetition



http://www.creativepro.com/files/story_images/posters.pdf



Alignment

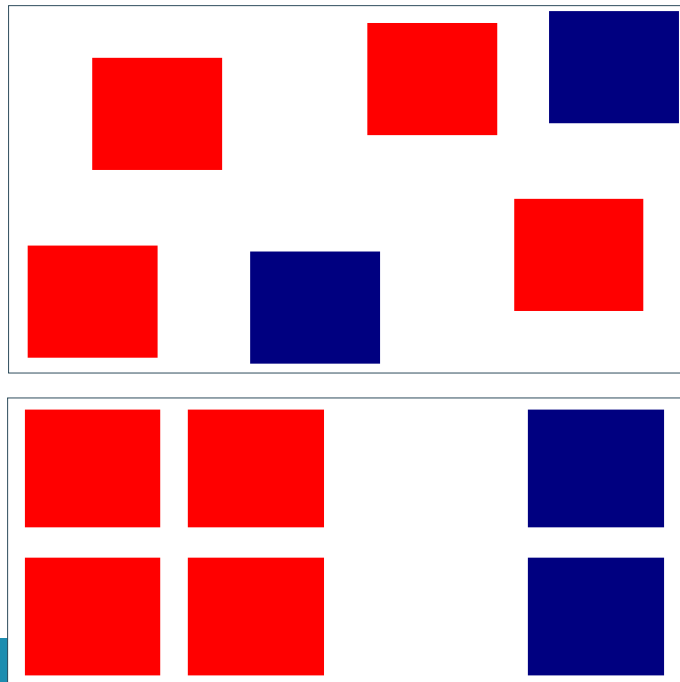
- Nothing should be placed arbitrarily. Do not toss elements randomly at your page or simply try to fill space.
- Every element should have a visual connection with another on the page.

**ALIGN
MENT**

Taken from <http://dribbble.com/elements/designing-with-align/designing-with-align-001>



Alignment



<http://suewatts.forestry.ubc.ca/files/2013/08/design-principles-jamie-EDITED.pdf>

Proximity

- Items related to each other should be grouped close together.
- Grouping organizes information and reduces clutter.
Focus on clarity in organization.

PROX
IMITY

PROX
IMITY

PROX
IMITY

Taken from <http://davidstallman.org/2012/08/08/designing-with-space/designing-with-space-02.pdf>

Proximity



www.nhsdesigns.com/principles/proximity/



Emphasis

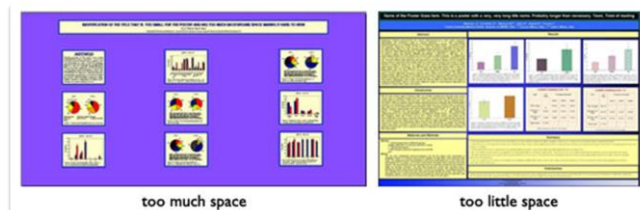
- Put emphasis: make the most important element the most prominent:
 - Make it large
 - Make it bold
 - Place the element in a different shape (color/format)
 - Make it intense, while surroundings are pale
 - Add a border
 - Surround with white space
 - Tilt it at a different angle

<http://www.slideshare.net/shira73/graphic-design-for-non-graphic-designer>



White space

- Used to give some structure.
- Be consistent: same spacing around images, charts, ...



<http://www.ncsu.edu/project/posters/NewSite/>

White space

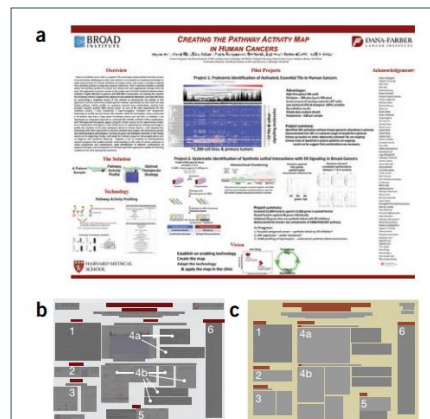
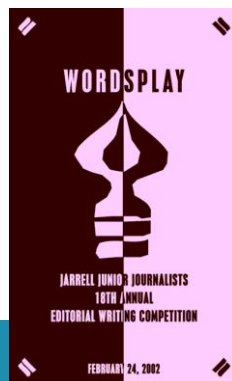
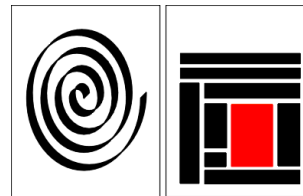
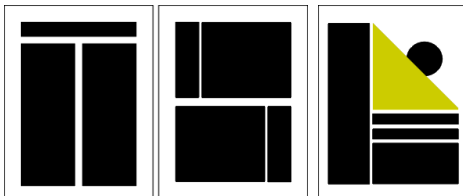
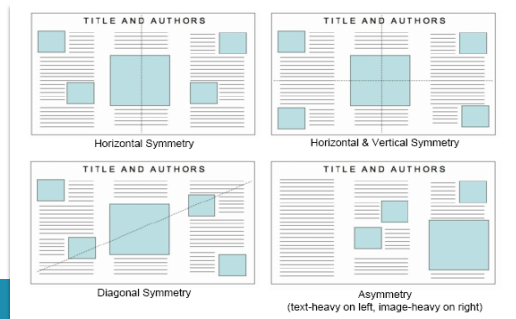


Figure 2 | Whitespace can be used to structure content. (a) An example of a scientific poster. (b) A space study reveals that contents in sections 1-6 are scattered and whitespace is fragmented. (c) An example of consolidated whitespace organizing contents.

Balance

- Visually balance color, objects, shapes, ...
 - Make it aesthetically pleasing
 - Symmetric: static
 - Asymmetric: dynamic
 - Radial



Color

- Use color combinations to evoke a feeling
- Color should help to make your poster easy to read
- Color helps to draw attention

