**Visual Literacy**
- Learned ability to see & interpret visuals and to create visual messages
- Ability to understand (read) and use (write) images and to think and learn in terms of images.
- **A Good (Effective) Picture is Worth a Thousand Words!**

**Roles of Visuals in Instruction**
- Motivate and define
- Enhance instructions
- Referent for ideas
- Recall information
- Easier to remember
- Simplify and organize
- Appeals to Multiple Intelligences
  - Spatial-Visual

**Visual Literacy**
- **Decode** – how we “read” or interpret meaning (ones reception)
- **Encode** – how we create meaning (designer’s intention)

**Decoding: Determinants of Perception**
- Stage of visual-spatial development
- Culture
- Knowledge
- Experience

**Visual-Spatial Development**
- 2-7 years old - not yet able to conceptualize abstractly & needs concrete physical situations.
- Prior to age 12, visuals seen as sections
- Older children tend to summarize the whole scene and report a conclusion
Humans are the only species to have created culture

Every human child develops in the context of a culture

Social cognition learning model
  - culture teaches children both what to think and how to think.

Different cultural groups may perceive visual materials in different ways

Different cultures attach different meanings to items

We construct our own understanding of the world we live in by reflecting on our experiences (frame of reference)

Visual Perception
  - Optical illusion
  - Double interpretation
  - Left sphere vs. Right brain sphere
  - Subliminal message

What Message is Received?

Decoding: Interpreting Visuals

Encoding: Creating Visuals

Learning through modeling

Student creation of visuals
  - Encourage deeper understanding
  - Outlet for expression
    - Creating Slideshows, Multimedia, Hypermedia, Video Production, Web Design, Digital Imaging...

Encoding: Creating Visuals

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Decoding: Interpreting Visuals

Encoding: Creating Visuals

Decoding: Interpreting Visuals
Encoding: Creating Visuals
- Show me what you mean
  - Assessment
- Student centered

To explore
To explain
To express
To experiment
To learn

Encoding: Creating Video
- Structured activity
- Students in charge of all or most of the stages

Research and Plan the Project
- Brainstorm the ideas
- Plan ahead
- Anticipate the difficulties
- Research/collect knowledge about subject

Narrative script & storyboard
- Write narration and then create storyboard BEFORE actually using any of the technology tools!

Narrative Script
- Message design / literacy skills
- The content and flow of the digital story
- Focus! You have few minutes to clearly communicate the message, tell a story, make a point, teach someone...

"Forgive me, this is a long letter. I would have written you a short letter, but I didn’t have the time." Mark Twain

Create a storyboard
- Based on a Script
- Plans for Development
- Visual representation of ideas
- Supports collaborative process
- Removes the guesswork out of the process.
Visual Literacy
- Visual Literacy
  - Theoretical Knowledge
  - Observation

Color
- Consider color’s cultural associations
  - http://www.colormatters.com
- Complementary/Analogous
  - Always test the colors
  - http://paletton.com/
- Color database
  - http://pourpre.com/colordb

Design Considerations
- Preferred vs. Effective
- Selection of Visuals
  - Consistency
  - Functional (enhancing not detracting)
- Target Audience…

Target Audience
- Age (developmental stage)
- Culture
- Experience
- Aptitude
- Sensitivity to Cultural Interpretation

Contrast
- Add interest, highlight & separate the pieces of the message
- Can be created by using very different colors, sizes, space, line thickness, shapes, directions, forms…

Contrast
- Alignment
- Repetition
- Proximity
Color Scheme

- Complementary - Directly opposite
- Analogous - Next to each other
- Varying Intensity

Sans serif vs. serif fonts

Visual literacy

Serif font

- Times, Courier, Georgia
- Best for large amounts of text in printed media
- The thin lines are more difficult to read on projected visuals.
Sans serif font

- Geneva, Helvetica, Arial, Verdana
- Best for projected media and large areas of text on a projected display

Alignment

- Unify and organize
- Nothing should be placed arbitrarily
- Every element should be aligned with something else on the page
- Three kinds of alignment:
  - Left, center & right

Repetition

- Unify and add visual interest
- Create consistency by repeating visual elements throughout the design
- Makes multi-page design appear to belong to the same document
**Proximity**

- The purpose is to **organize**
- Group related items together
- Elements should be intellectually and visually connected

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**Contrast**

**Alignment**

**Repetition**

**Proximity**

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**Goals of Visual Design for learning**

- Ensure legibility - remove obstacles
- Reduce effort
- Increase active engagement
- Focus attention
- Simplify the message
- Helps remember
- Raise aesthetic value
Web Design Considerations
Refer to your RWLDs

How People Read Online Info?
- Key points to remember:
  - We don’t like to wait
  - We don’t like to scroll
  - We don’t like to read
  - Our time is valuable
  - It’s a big competition out there!

People Scan For Key Words & Phrases
- Make headings, titles & subtitles clear
  - You are creating a visual hierarchy
- Highlight key words
- Use bulleted lists
- Split your pages into shorter paragraphs

Bad Design Checklist
Because it’s easier to learn from mistakes...

Check General Usability
- It takes more than 4 sec. for someone to understand what my site is about.
- Links are difficult to spot.
- Links are not clearly labeled.
- uses underlined text
  - Only links should be underlined.

My page:
- has sound effects and no “off” option
- Every page has a completely different design
- use scrolling, blinking, fading, moving text.
- USE LOTS OF WORDS IN ALL-CAPS!
- use centered text for more than headlines