
Universal Principles of Design

PART 2

READING SUMMARY

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How Can I Help People Learn From a Design

Accessibility

States that the artifact designed should be usable by all type of people. Even people with visual or auditory disabilities. The four characteristics of accessibility in terms of design are:

- Perceptibility
Is when everyone can see the design.
- Operability
Is when everyone can make use of the design.
- Simplicity
Is when everyone can understand the design and it's usage.
- Forgiveness
Is when designs allow the users to make mistakes and still continue with a good user experience

Advance Organizer

Is a grouped information chunk that puts people into a context where they can apply their previous knowledge to understand something new. The two kinds of these are expository and comparative. Expository is used in completely new material where the user has no previous knowledge. ex. learning what a car does before learning how to drive it. Comparative is the opposite in terms of learning, it shows the person how they can use their previous knowledge in a new situation. ex. teaching a car driver how to drive a van.

Chunking

Grouping information. Chunk is formed if the information in a chunk is not closely related to that of another chunk.

Classical Conditioning

When you can trigger a physical or emotional reaction from a person using some kind of stimulus. Use this to help users predict your system.

Comparison

Literally a comparison between two or more things to show the difference or similarity.

Depth of Processing

When someone spends more time analyzing information deeply, they can remember it better than if they had only done a light processing on that information.

Forgiveness

Using feedback and good design a user should be able to quickly recover from an error without consequences. Somethings that can help with forgiveness are: good affordances, reversibility of actions, safety nets, confirmations, warnings and a help option

Garbage In - Garbage Out

If a user enters garbage input, it will result in garbage output. Therefore always help your user enter in the correct input by using verification and input checking

Hierarchy

Showing which artifacts inherit from which other ones allows the user to have a better understanding of how the system works which results in a better user experience.

Immersion

When you like the user experience so much you forget about the real world.

Mental Model

A user creates a representation of the system in his mind by using their previous experiences. When people look at the results of interactions with real life events that align with a systems mental model, they can better predict how the system will react to their inputs.

Mnemonic Device

When there is a lot of information to remember for the user you can make use of rhyming, keywords, first-letter representations, and feature names to help them reorganize the information so they have a easier time remembering it.

Operant Conditioning

You can control the users behavior habits by using positive reinforcement when they do a good action and negative consequences when they do a bad action. ex. Shocking a dog, etc

Performance Load

The more you demand from a user the higher the chance that the user will give up and the task will not be completed. Two types are cognitive load (mental) or kinematic load (physical).

Picture Superiority Effect

People have a easier time remembering pictures than they do remembering text or other forms of information.

Progressive Disclosure

Showing more information and options only when required and keeping them hidden when they are not applicable

Readability

Important factors here are: word length, word frequency, sentence length, and number of syllables and clauses in a sentence. Just means how easily the user can read and understand your text or information

Recognition over Recall

It is easier for users to identify things they have already seen when represented to them than it is for them to recall it without any hints or stimulus.

Serial Position Effects

Classic presentation order. People remember things that happen first or last and nothing in-between. Usually the reason people want to present somewhere in the middle of a presentation session.