User Experience Principles - Quick Reference

Core Usability Principles

Don't Make Me Think - Users should understand your interface instantly without mental effort. If they have to figure out how something works, you've failed.

Visibility of System Status - Always keep users informed about what's happening through appropriate feedback within reasonable time.

Match the Real World - Use familiar concepts, language, and conventions. Follow real-world logic and natural mappings.

User Control & Freedom - Provide clear "emergency exits" for unwanted actions. Support undo/redo and easy navigation backwards.

Consistency & Standards - Follow platform conventions and maintain internal consistency. Same actions should have same results.

Error Prevention - Design to prevent problems before they occur. Better than good error messages is no errors at all.

Recognition Over Recall - Make objects, actions, and options visible. Users shouldn't have to remember information across different parts of the interface.

Flexibility & Efficiency - Provide shortcuts for expert users while keeping the interface accessible to novices. Accelerators speed up frequent actions.

Aesthetic & Minimalist Design - Remove irrelevant information. Every extra unit of information competes with relevant units and diminishes their visibility.

Interaction Design Principles

Affordances - Design elements should suggest their function. Buttons should look clickable, sliders should look draggable.

Feedback - Every user action should have immediate, clear response. Users need to know their actions were registered.

Mapping - Spatial relationships should reflect logical relationships. Close controls to what they affect.

Constraints - Limit possible actions to prevent errors. Use physical, semantic, cultural, and logical constraints.

Forgiveness - Allow users to explore without fear. Make actions reversible and provide confirmation for destructive actions.

Progressive Disclosure - Present information in carefully prioritized layers. Show only what users need at each step.

Fitts's Law - Larger, closer targets are faster to acquire. Make important buttons bigger and position them strategically.

Cognitive Principles

Cognitive Load - Minimize mental effort required. Break complex tasks into simple steps and reduce memory requirements.

Miller's Rule (7±2) - Humans can only hold 5-9 items in working memory. Limit choices and group related items.

Hick's Law - Decision time increases with number of choices. Reduce options or organize them hierarchically.

Peak-End Rule - Users judge experiences by their peak moment and how they end. Make high points memorable and endings positive.

Serial Position Effect - Users best remember first and last items in a sequence. Place important actions at beginning or end of lists.

Modern UX Principles

Mobile First - Design for smallest screen first, then scale up. Ensures core functionality works everywhere.

Accessibility (A11Y) - Design for users with disabilities. Provides better experience for everyone through clear contrast, keyboard navigation, and screen reader support.

Performance as UX - Speed is a feature. Users abandon slow applications. Optimize loading times and provide loading indicators.

Emotional Design - Products should be pleasant, trustworthy, and create positive emotional connections with users.

Microinteractions - Small animations and responses make interfaces feel alive and provide important feedback about system state.

Content Strategy - Content is interface. Write clearly, concisely, and in user's language. Good content reduces need for complex UI.

Application-Specific Guidelines

Discoverability - Users should be able to find features without hunting. Use clear navigation, search, and logical information architecture.

Learnability - Interface should be easy to learn initially and easy to relearn after periods of non-use.

Error Recovery - When errors occur, provide clear explanation of what happened and how to fix it. Use plain language, not error codes.

Contextual Help - Provide assistance when and where users need it. Inline help is better than separate help sections.

Data Entry Optimization - Minimize typing. Use smart defaults, autocomplete, and appropriate input methods for data types.

Visual Hierarchy - Use size, color, spacing, and typography to guide user attention to most important elements first.

These principles interconnect throughout your application. Link specific features to relevant principles to maintain consistency and user-centered design decisions.