Assignment 3

Task1

a) No Chrome interfaces are designed to maximize the content area while minimizing visual clutter. This lowers distractions from redundant UI elements and encourages concentration on the current activity. Creating a user experience that is more effective and engaging is the aim.

b)

OpenOffice/Word: These applications utilize a traditional graphical user interface (GUI) with a prominent menu bar, toolbars, and various panels for functions like file operations, formatting, and advanced document processing tools are accessed through these widgets.

Sublime Text Editor: Sublime Text adopts a more minimalist approach. It often hides the menu bar until accessed through keyboard shortcuts or specific actions. While some functionality might be available through icons, such as line numbers, the focus is on keyboard shortcuts for efficient editing.

C) Advantages:

- Increased Focus: Reduced visual clutter allows users to concentrate on the content they are creating or working with.
- Improved Efficiency: Keyboard shortcuts can provide faster access to frequently used functions compared to clicking through menus.

Disadvantages:

- Discovery of Functionality: New users might find it challenging to discover all the available functions without prominent menus or toolbars.
- Accessibility Issues: Users who rely on mouse-based interaction might find keyboard-centric interfaces less accessible.

Everyday Example:

A simple example of a No Chrome interface could be a calculator application on a smartphone. It displays a large keypad for number input and basic functions (+, -, *, /) with minimal or hidden additional options like memory functions or scientific calculations. These can be accessed through taps or gestures when needed.

Task 2

a) The study design involved four studies to examine different visual augmentations that could improve the perceived performance of progress bars:

1. Study 1 - Pulsating Progress Bars: This study examined five variations of pulsating progress bars with different start and end frequencies to manipulate perceived duration.

2. Study 2 - Ribbed Progress Bars: This study investigated seven different behaviours of animated ribbing on progress bars, including variations in direction and velocity, to affect perception of progress bar duration.
3. Study 3 - Comparison of Pulsating, Ribbed, and Standard Progress Bars: This study compared the best-performing pulsating and ribbed progress bars against a standard solid-color progress bar at 5-second and 15-second durations.
4. Study 4 - Perceived Performance Magnitude: This final study used a special interface to quantify the magnitude of the perceptual effects, finding that the ribbed progress bar design reduced the perceived duration by 11% compared to a standard progress bar.

The key factors examined were the visual attributes of progress bars, including pulsation, ribbing, direction of motion, and velocity, and how these affected users' perception of the progress bar duration.

b) Based on the findings from the paper, I would design the round progress indicator with the following principles:

1. Incorporate Backwards Decelerating Ribbing: The study showed that progress bars with animated ribbing that moves in the opposite direction to the progress, and decelerates over time, had the strongest effect in reducing perceived duration. This type of ribbing behaviour should be incorporated into the round progress indicator.
2. Consider Scaling the Perceptual Effect: The final study found that the ribbed progress bar reduced the perceived duration by 11% compared to a standard progress bar. The paper suggests this effect may scale linearly to longer durations. Therefore, the round progress indicator could be designed to dynamically adjust its actual duration by up to 11% to create the perception of faster progress.
3. Leverage Induced Motion: The paper explains that the ribbing moving in the opposite direction to the progress creates an illusion of increased velocity, which alters the perception of progress bar duration. This principle of induced motion should be applied to the round progress indicator to enhance the perceptual effect.

By incorporating these design principles based on the research findings, the round progress indicator can leverage visual augmentations like animated ribbing to manipulate users' perception of progress and create the impression of faster performance.