GOMS Model - Deleting an Email

Problem Statement

Implement GOMS modelling technique to model user's behaviour for deleting an email in an email client interface.

Scenario

User wants to delete an unwanted email from their inbox.

GOMS Model Implementation

Define the User's Top-Level Goal

Goal: Delete an email from the inbox

Operators

- **M:** Move cursor to email/button
- **P:** Point to target location
- **K:** Press keyboard key
- **H:** Move hand to keyboard/mouse
- **B:** Press mouse button (click)

Methods

Method 1: Select and Delete Button

1. Move cursor to email in list (M)
2. Click to select email (B)
3. Move cursor to delete button (M)
4. Click delete button (B)

Method 2: Select and Keyboard Shortcut

1. Move cursor to email in list (M)
2. Click to select email (B)
3. Move hand to keyboard (H)

4. Press Delete key (K)

Method 3: Right-Click Context Menu

1. Move cursor to email in list (M)

2. Right-click on email (B)

3. Move cursor to "Delete" option in menu (M)

4. Click delete option (B)

Method 4: Open and Delete

1. Move cursor to email in list (M)

2. Double-click to open email (B, B)

3. Move cursor to delete button in email view (M)

4. Click delete button (B)

Selection Rules

- **Use Method 2** if user is keyboard-oriented and familiar with shortcuts (fastest execution time: ~2-3 seconds)

- **Use Method 1** if delete button is prominently visible and user prefers mouse-only interaction (~3-4 seconds)

- **Use Method 3** if user discovers delete option through exploration or prefers context menus (~4-5 seconds)

- **Avoid Method 4** as it requires unnecessary steps and takes longest time (~5-6 seconds)

Time Estimation (KLM-GOMS)

Using standard operation times:

- K (keystroke): 0.20s

- P (pointing): 1.10s

- H (homing): 0.40s

- M (mental preparation): 1.35s

- B (button press): 0.10s

Method 2 (Optimal): M + P + B + H + K = 1.35 + 1.10 + 0.10 + 0.40 + 0.20 = **3.15 seconds**

Conclusion

Method 2 (Select and Keyboard Shortcut) is the most efficient method for deleting an email, requiring the least time and cognitive load. This GOMS analysis helps identify the optimal interaction pattern for email deletion and can guide interface design to make this method more discoverable to users.