

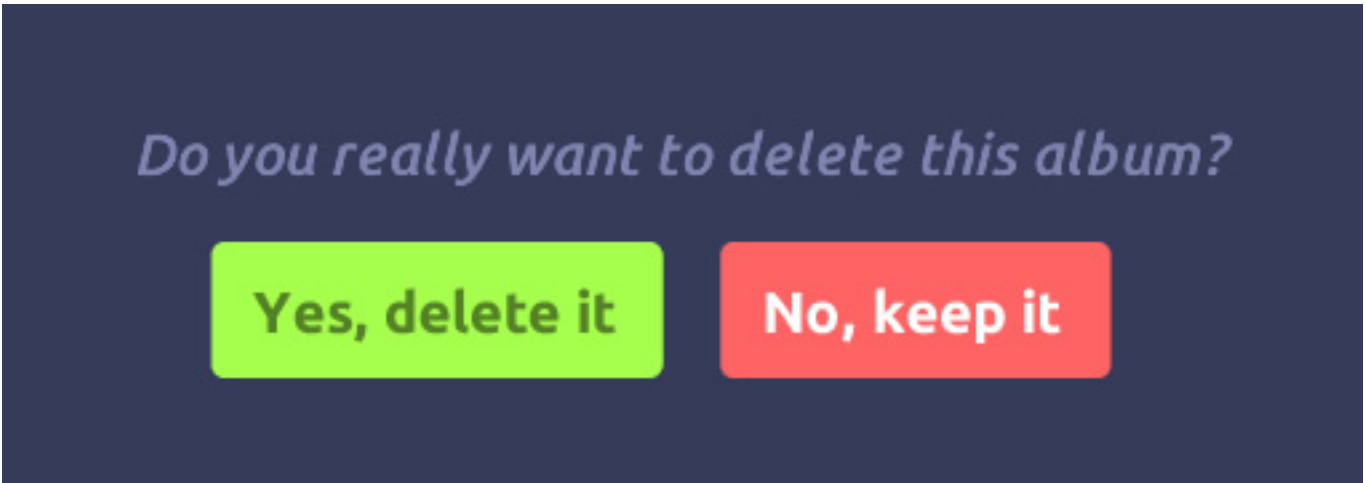
# Design Principle Sheet

## Interference Effects

Interference effects result when two or more cognitive processes are incongruent with each other. This costs the user additional time to resolve the conflicts in the design. There are two different types of interference effects: interference effects of perception - Stroop and Garner, and interference effects of learning - proactive, and retroactive.

Prevent interference effects of perception by avoiding conflicting coding combinations and interference between two closely positioned elements - such as identical “OK” and “Cancel” buttons. Varying methods of instruction such as lecture and video can prevent interference effects of learning.

A



B



## Definition

[ A phenomenon in which mental processing is made slower and less accurate by competing mental processes. ]

- A In example A, the color and the shape of the buttons creates interference effects of perception for the user. Both buttons have a similar shape and height, and are in close proximity to each other. The color green does indicate “go” -- as in go ahead and delete the album -- however, the color red typically indicates a serious action. Deleting the album is the more serious action, but is associated with the color green.
- B In example B, green is associated with yes or “OK”. The two options are located closely enough to be associated with each other, but with more space between than the options in example A. The design of each option varies in color, shape, line, typography - small caps versus all caps - so the two options are distinguishable.