**4 stages of a creative process?**

**Step 1—The visual concept is formed:** Depending on the application, a graphic idea

may be very free and imaginative or very stereotyped. An art director doing design for an advertising firm

may be open to almost any new visual concept, so long as it can be somehow linked to the product and

yield a positive association. Conversely, an architect designing an apartment building on a fixed budget is

likely to have his visual imagination constrained to a small set of conventional alternatives. In either case

the initial concept may be quite abstract and not particularly graphical. A “ three-story, L-shaped building

with 12 units ” might be sufficient in the case of the architects.

**Step 2—Externalization:** A loose scribble is drawn on paper to externalize the concept and

provide a starting point for design refinement.

**Step 3—The constructive critique:** The scribble is visually critiqued; some elements are

visually tested. The designer performs a kind of informal cognitive task analysis, executing a series of visual

queries to determine if the design meets requirements. As part of the process, new meanings may be bound

with the external imagery and potential additions imagined.

**Step 4—Consolidation and extension:** The original scribble is modified. Faint existing lines

may be modified or strengthened, consolidating the aspect of the design they represent. New lines may be

added. Other lines may be erased or may simply recede as other visual elements become stronger.

**Which process(es) are considered as thinking tool across ALL humans**

|  |  |
| --- | --- |
|  | Internalized speech |

**Which theory about mental imagery proposes that mental imagery is based on the same cognitive activities as normal seeing?**

S.Kosslyn & J.R. Pomeranz - phantom images