Massed Practice Leads the Mind to Wander
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Spaced practice, the interleaving of exemplars across different categories, results in better inductive learning than massed practice.

One explanation for this benefit is that spaced practice recruits more attention than massed practice.

Prediction: massed practice should lead to more mind wandering and poorer inductive performance than spaced practice

Method

Subjects: 66 Columbia University undergrads

Design: 2 (Condition) x 2 (Order) x 3 (# of exemplars) x 4 (Quartile)
- Condition (within) – massed or spaced practice
- Order (between) – whether participants studied massed or spaced condition first
- # of exemplars (within) – 12, 15, or 18 images shown per artist & before a mind wandering probe
- Quartile (within) – 1st, 2nd, 3rd, or 4th quartile during study

Materials: 22 images from 24 different artists
- 12 artist per condition, with 3 per quartile
- 12, 15, or 18 images during study & 4 unstudied images in test per artist
- Artists used: Alice Neel, Terry Winters, Sonia Delaunay, Frida Kahlo, Eva Hesse, Tom Wesselman, Wayne Thiebaud, Richard Serra, Lee Krasner, Sam Francis, Louise Nevelson, Donald Sultan, Joan Mitchell, Helen Frankenthaler, James Rosenquist, Jasper Johns, Robert Motherwell, Cy Twombly, Robert Rauschenberg, Elsworth Kelly, Francis Bacon, Isabel Bishop, Lucien Freud, & Frank Stella

Procedure: MASSED Study → Test → SPACED Study → Test
 OR
SPACED Study → Test → MASSED Study → Test

Example Study Blocks

Example Test Sequence

Results

Proportion of Mind Wandering

Test Performance

P(Mind Wandering)

Quartile

0.6

0.4

0.2

0

1

2

3

4

Massed

Spaced

Conclusion

1. Engaging in massed practice results in more mind wandering than spaced practice
2. Massed practice leads to poorer inductive learning than spaced practice

References


