Picture naming test

n = 298 pictures

Administered 3x pre-treatment

Picture naming accuracy classification

| Always named accurately | Twice accurate | Once accurate | Never accurate |

Response time

Stimulus pool

Dose calibration

Mean response time determined set size

Quasi-random stimulus selection

n = 4 x set size

At least 70% never accurate
At most 30% once or twice accurate
Remaining unallocated

Set size

Set construction

n = 4 sets
Random allocation

Unallocated pictures	Untreated	Low dose	Moderate dose	High dose
n = 298 – (4 x set size)	n = set size	n = set size	n = set size	n = set size

Figure showing the series of operations used to allocate stimulus items to treatment conditions. First, pictures are classified based on accuracy across the three naming tests. Then average response time for pictures that were always named accurately was calculated and those pictures were set aside (unallocated). The dose calibration procedure (see detailed description below) used mean response time to determine how many episodes of cued picture naming treatment would be provided each dose condition and, subsequently, how many pictures would be allocated to each of the four stimulus sets. A quasi-random selection of pictures that were not always named accurately during pre-treatment testing was made and these pictures were divided into four sets balanced for naming accuracy classification and lexical properties (frequency, length). The four stimulus sets were then randomly allocated to one of the four treatment conditions.