

Effect of Training Frequency on Face-Name Recall

Karen Hux, Ph.D., University of Nebraska - Lincoln
Nancy Manasse, M.A., University of Nebraska - Lincoln
Jeff Snell, M.S., Quality Living Inc., Omaha, NE
Shawna Wright, B.A., Quality Living Inc., Omaha, NE

Project Information

- Available at
<http://barkley.unl.edu/tbi/memory.html>

Purpose

- To evaluate the relative effectiveness of three frequencies of intervention sessions on the ability of TBI survivors with severe memory disorders to recall face-name associations on demand.
 - Five times per day
 - One time per day
 - Two times per week

Participants

- 7 males w/ severe TBI residing in a transitional living facility
 - At least 1 year post-injury
 - Non-aphasic with scores of 93.8 or above on the WAB Aphasia Quotient
 - Memory function established by Cognitive Assessment of Minnesota
 - All participants had severe memory deficits

Materials

- Color photographs of 12 staff members for each participant
 - Divided into four sets of three pictures
 - Three sets were used as target stimuli - one set for each phase
 - The remaining set of photographs served as alternates
- Visual imagery statements
 - for the name Mike, “Imagine Mike speaking into a microphone”
- General comments related to facial features
 - “Look at the hair”
 - “Notice whether the person is wearing glasses”

Procedure

Probe

- Performed at the beginning of each training session
- 12 photos shown in random order
- Participant names each person as able
- Trainer records correct/incorrect responses
- No feedback related to accuracy

Procedure Training

- Performed following probe activity
- Three target photographs of staff members presented in random order
- 10 second pre-exposure period
- Trainer reads 2 general comments (“Look at the hair”)
- Trainer states and participant repeats staff member’s name
- Trainer states and participant repeats imagery association
- 5 second interval between target photos
- Entire sequence repeated 5 times each session

Demonstration



Experimental Design

- Modified multiple-baseline design
- Each of 3 phases used a separate set of 3 pictures and a different frequency of training
- Frequency of training:
 - 5 times per day
 - 1 time per day
 - 2 times per week
- Three phases of training were counterbalanced to prevent order effects

Baseline Data

- Collected on all stimuli (12 pictures) one time daily for 3 consecutive days
- If a participant correctly named a picture on more than one day of baseline, an alternate stimulus picture was selected
- Performance was considered stable after 3 consecutive sessions with no pictures correctly named

Criterion for Advancement through Phases

- Phases referred to frequency of training
 - 5 times per day
 - 1 time per day
 - 2 times per week
- Move to next phase when:
 - all 3 photos correctly named during 3 consecutive sessionsOR
 - after the completion of 25 sessions

Incidental Learning

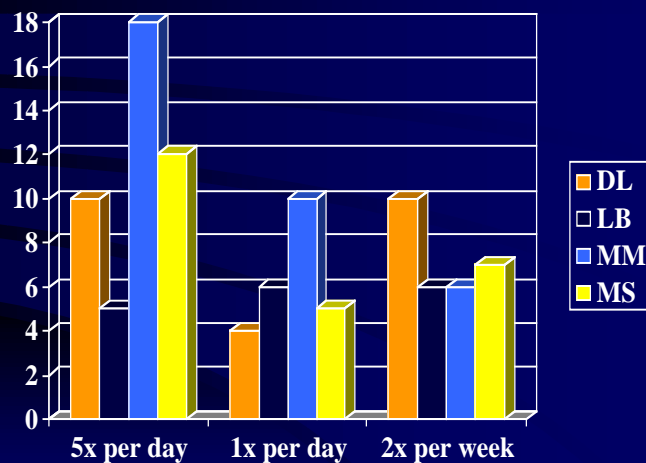
- All participants had exposure to staff members' names on daily basis
- Baseline performance demonstrated that incidental exposure was insufficient for learning names
- However, if participant correctly named an untrained photo in 3 consecutive sessions, photo was replaced with one from an alternate set

Results

- Four of the seven participants reached mastery in all phases
- Two of the three participants who did not achieve mastery appeared to learn some face-name associations; however, the ceiling of 25 sessions was reached in all phases.

Results

Number of sessions to reach criterion



Conclusions

- Using the combination of mnemonics and visual imagery strategies is effective for assisting about half of survivors of severe TBI in learning face-name associations
- Training frequency
 - One time per day and two times per week were more effective than five times per day
 - Behavior problems emerged with more frequent training sessions

Questions and Future Research

- Does the amount of exposure time effect the ease with which learning occurs?
- Why was the strategy effective for some survivors and not for others?
- Would adding an auditory component (i.e., a tape recording of the person's voice stating his/her name and the mnemonic) facilitate learning face-name associations among those survivors who did not benefit from the current procedures?