The pooled results for the ??? valid participants (??? females, ??? males, ??? non-binary, ??? other) are presented in the tables below. Initially, ??? individuals completed the experiment, but ??? of them were excluded from the data analysis because they indicated that they a) were not currently enrolled in PSY 100 (??? people); b) had used reference materials to assist their memory (??? people); c) did not attend high school in the U.S.A. (??? people).

**RECALL Condition** (table shows hit rate for each President)

Presidents correctly recalled (out of 45): Mean = **14.65**, St.Dev. = 7.1, 95% Confidence Interval = +/- 1.0, Hit Rate= **34%**

Non-Presidents “recalled”: Mean = **1.32**, St.Dev. = 1.4, 95% Confidence Interval = +/- 0.2, False Alarm Rate = **8.3%**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **President** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** | **15** | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** | **24** | **25** | **26** | **27** | **28** |
| Correct Recall % | 94 | 64 | 60 | 29 | 15 | 64 | 35 | 4 | 11 | 7 | 16 | 7 | 7 | 7 | 8 | 90 | 23 | 19 | 8 | 10 | 2 | 8 | 11 | 6 | 69 | 25 | 19 | 3 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **President** | **29** | **30** | **31** | **32** | **33** | **34** | **35** | **36** | **37** | **38** | **39** | **40** | **41** | **42** | **43** | **44** | **45** |  | ***1-7*** | ***8-14*** | ***15-21*** | ***22-28*** | ***29-35*** | ***36-45*** |
| Correct Recall % | 10 | 26 | 69 | 15 | 18 | 68 | 23 | 56 | 40 | 22 | 49 | 86 | 79 | 86 | 96 | 99 | 99 |  | ***52*** | ***8*** | ***23*** | ***20*** | ***33*** | ***64*** |

**RECOGNITION Condition** (table shows hit rate for each President)

Presidents correctly recognized (out of 45): Mean = **30.97**, St.Dev. = 6.5, 95% Confidence Interval = +/- 0.9, Hit Rate= **72%**

Non-Presidents “recognized”: Mean = **9.47**, St.Dev. = 14.3, 95% C. I. = +/- 1.9, False Alarm Rate = **23.4%**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **President** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** | **15** | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** | **24** | **25** | **26** | **27** | **28** |
| Correct Recog % | 100 | 95 | 93 | 88 | 68 | 95 | 93 | 45 | 39 | 26 | 54 | 40 | 31 | 36 | 49 | 100 | 55 | 68 | 55 | 57 | 21 | 71 | 37 | 60 | 98 | 76 | 85 | 34 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **President** | **29** | **30** | **31** | **32** | **33** | **34** | **35** | **36** | **37** | **38** | **39** | **40** | **41** | **42** | **43** | **44** | **45** |  |  | ***1-7*** | ***8-14*** | ***15-21*** | ***22-28*** | ***29-35*** | ***36-45*** |
| Correct Recog % | 74 | 87 | 97 | 88 | 92 | 97 | 78 | 98 | 85 | 77 | 97 | 99 | 60 | 99 | 100 | 90 | 100 |  |  | ***90*** | ***39*** | ***58*** | ***66*** | ***88*** | ***89*** |

*Note: Presidents 2 and 6 were both named John Adams. Presidents 40 and 42 were both named George Bush.*

### Statistical Analyses (testing for differences between mean scores for each condition or comparison)

*We performed a series of t-tests on the memory data.* The analyses yielded a ***t-test*** value for each comparison, along with the probability (also called ***p-level*** or ***significance level***) that an effect this large would have occurred by chance alone (if the “null hypothesis” were true), given the ***df*** (degrees of freedom) for that *t*-test (shown in parentheses after the *t*). Mean scores are considered significantly different if the ***p-level***for that *t*-test is less than .05.

Effect of Memory Task

People typically perform better on memory recognition tasks than on memory recall tasks. To test this, we performed a paired-samples *t-*test on the comparison between correct RECALL scores and correct RECOGNITION scores.

Presidents **correctly remembered** (hits): Recall vs. Recognition: *t* (196) = 12.22, *p* < .001 (significantly more Presidents remembered in Recognition condition)

Effect of Historical Era

When people learn a list of items, they typically show a **serial position effect** in memory performance. The items near the **beginning and end** of the list are more likely to be remembered than items in the middle of the list. We For performed a series of paired-samples *t-*tests to explore this pattern on the list of Presidents, using correct RECOGNITION scores only.

Presidents 1-7 vs. Presidents 8-14: *t* (196) = 16.25, *p* < 0.001 (significantly more Presidents remembered in the earliest group)

Presidents 1-7 vs. Presidents 15-21: *t* (196) = 9.62, *p* < 0.001 (significantly more Presidents remembered in the earliest group)

Presidents 36-45 vs. Presidents 29-35: *t* (196) = 1.25, *p* < 0.161 (no significant difference)

Presidents 36-45 vs. Presidents 22-28: *t* (196) = 8.03, *p* < 0.001 (significantly more Presidents remembered in the most recent group)