**Appendix**

**Table 1**

*Significant mean changes for self-reported markers by experimental condition*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Experimental Condition | Marker Name | Mean Start | Mean End | Test Statistic | Asymp. Sig. (2-tailed) |
| Boost | Self-efficacy feelings | 4.79 | 5.57 | t = -3.26 | 0.02 |
| Information Provision | Self-efficacy feelings | 5.50 | 4.79 | t = -2.45 | 0.03 |
| Nudge | Goal Entrenchment | 12.50 | 8.95 | t = 3.41 | 0.01 |

**Table 2**

*Summarized self-reported marker measures*

|  |  |  |
| --- | --- | --- |
| Measures | Item count | Sample item |
| Goal setting  (Time 1 and 2)\* | 1 | If you wanted to reduce your energy consumption at home, you need to plan to adjust your consumption behaviour for a year. What percent reduction would you consider a realistic goal? |
| Commitment  (Time 1 and 2) | 2 | How likely are you to participate in further research related to energy conservation? |
| Environmental identity  (Time 1 and 2) | 2 | Acting environmentally friendly is an important part of who I am. |
| Normative influence  (Time 1) | 4 | Most people who are important to me think that I should conserve energy at home. |
| Energy conservation behaviors (Time 1) | 7 | I switch off the television and computer when not in use. |
| Personal norms (Time 1 and 2) | 2 | I feel a strong personal obligation to conserve energy at home. |
| Pro-environmental attitudes  (Time 1) | 4 | To conserve energy at home is too much of a hassle. |
| Self-efficacy and PBC (Time 1 and 2) | 4 | How certain are you that you could conserve energy in your apartment/room? |
| Demographics (Time 1) | 13 | How much time do you spend at home during the day (daytime ours only)? |
| Social comparison marker  (Time 2) | 1 | In the past 6 months, how often have you compared your energy consumption with the consumption of others? |
| competence enchancement (Time 2) | 10 | What percentage of the energy your electronics use during their lifetime is wasted on standby? |
| \* The measure was administered at the beginning and at the end of the experimental period. | | |

**Figure 1**





Kendall’s Tau non-parametric correlation analysis revealed a significant medium correlation between temperature and warm water use in the boost condition (τ(37)=-.45, *p*= .01), suggesting that as temperature increased, warm water consumption for the boosted decreased.

**A picture containing diagram, line, plot, text

Description automatically generatedFigure 2**

Figure 2 represents the mean weekly values for electricity consumption per experimental group. The pattern complements the non-parametric results, showing again that the boosted group consumed significantly less electricity than the nudged group. Below (Table 3), a parametric mean weekly comparison based on a repeated-measures analysis of variance additionally substantiates the findings:

**Table 3**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| *Mean Pairwise Comparisons Between Treatments* | | | | | | |
|  |  | Mean Difference  (I-J) | Std. Error | Sig.b | 95% Confidence Interval for Differenceb | |
| Treatment | Comparison | Lower Bound | Upper Bound |
| info | nudge | -3.049 | 1.627 | 0.197 | -7.053 | 0.955 |
| boost | 1.844 | 1.627 | 0.784 | -2.160 | 5.848 |
| nudge | info | 3.049 | 1.627 | 0.197 | -0.955 | 7.053 |
| boost | 4,893\* | 1.608 | 0.01\* | 0.936 | 8.850 |
| boost | info | -1.844 | 1.627 | 0.784 | -5.848 | 2.160 |
| nudge | -4,893\* | 1.608 | 0.01\* | -8.850 | -0.936 |
| \*The mean difference is significant at the ,05 level. | | | | | | |
| b. Adjustment for multiple comparisons: Bonferroni. | | | | | | |

Table 4 contains all the relevant weekly means, standard errors, and confidence intervals.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table 4** |  |  |  |  |  |
| *Mean electricity consumption per experimental condition* | | | | | |
| Condition | Week | Mean | Std. Error | 95% Confidence Interval | |
|  |  |  |  | Lower Bound | Upper Bound |
| Information baseline | 1 | 22,818 | 1,497 | 19,826 | 25,810 |
| 2 | 17,688 | 1,362 | 14,966 | 20,410 |
| 3 | 18,670 | 1,252 | 16,168 | 21,172 |
| 4 | 19,300 | 1,274 | 16,753 | 21,846 |
| 5 | 18,375 | 1,403 | 15,571 | 21,178 |
| 6 | 17,718 | 1,995 | 13,729 | 21,706 |
| 7 | 18,730 | 2,384 | 13,965 | 23,494 |
| 8 | 19,257 | 1,959 | 15,341 | 23,174 |
| 9 | 19,492 | 1,496 | 16,502 | 22,482 |
| 10 | 19,528 | 1,523 | 16,484 | 22,571 |
| 11 | 17,723 | 1,447 | 14,831 | 20,615 |
| 12 | 18,919 | 1,694 | 15,532 | 22,306 |
| 13 | 19,298 | 1,838 | 15,623 | 22,973 |
| 14 | 18,273 | 1,856 | 14,563 | 21,983 |
| 15 | 17,049 | 1,463 | 14,125 | 19,973 |
| 16 | 17,104 | 1,275 | 14,555 | 19,653 |
| 17 | 17,112 | 1,615 | 13,883 | 20,341 |
| 18 | 16,835 | 1,606 | 13,624 | 20,046 |
| 19 | 17,042 | 1,683 | 13,678 | 20,407 |
| 20 | 17,125 | 1,570 | 13,987 | 20,263 |
| 21 | 16,663 | 1,495 | 13,675 | 19,652 |
| 22 | 15,757 | 1,549 | 12,660 | 18,853 |
| 23 | 15,949 | 1,385 | 13,179 | 18,718 |
| 24 | 15,954 | 1,363 | 13,229 | 18,680 |
| 25 | 15,560 | 1,474 | 12,613 | 18,506 |
| 26 | 16,944 | 1,435 | 14,076 | 19,812 |
| 27 | 15,136 | 1,361 | 12,415 | 17,857 |
| Nudge | 1 | 24,860 | 1,462 | 21,937 | 27,783 |
| 2 | 20,590 | 1,330 | 17,931 | 23,249 |
| 3 | 22,320 | 1,223 | 19,876 | 24,765 |
| 4 | 22,084 | 1,245 | 19,595 | 24,572 |
| 5 | 18,683 | 1,370 | 15,944 | 21,422 |
| 6 | 18,984 | 1,949 | 15,087 | 22,881 |
| 7 | 21,823 | 2,329 | 17,168 | 26,478 |
| 8 | 22,145 | 1,914 | 18,319 | 25,972 |
| 9 | 23,197 | 1,461 | 20,276 | 26,119 |
| 10 | 21,929 | 1,488 | 18,955 | 24,902 |
| 11 | 22,450 | 1,413 | 19,624 | 25,275 |
| 12 | 23,770 | 1,655 | 20,461 | 27,079 |
| 13 | 24,152 | 1,796 | 20,562 | 27,743 |
| 14 | 22,683 | 1,813 | 19,058 | 26,308 |
| 15 | 18,843 | 1,429 | 15,986 | 21,700 |
| 16 | 18,954 | 1,246 | 16,463 | 21,444 |
| 17 | 19,790 | 1,578 | 16,635 | 22,945 |
| 18 | 21,077 | 1,569 | 17,940 | 24,214 |
| 19 | 20,400 | 1,644 | 17,113 | 23,688 |
| 20 | 19,439 | 1,534 | 16,373 | 22,505 |
| 21 | 17,583 | 1,461 | 14,663 | 20,502 |
| 22 | 20,872 | 1,513 | 17,847 | 23,897 |
| 23 | 18,956 | 1,354 | 16,250 | 21,661 |
| 24 | 18,757 | 1,332 | 16,094 | 21,420 |
| 25 | 19,427 | 1,440 | 16,548 | 22,306 |
| 26 | 20,027 | 1,402 | 17,225 | 22,829 |
| 27 | 18,544 | 1,330 | 15,885 | 21,202 |
| Boost | 1 | 19,051 | 1,462 | 16,128 | 21,974 |
| 2 | 15,845 | 1,330 | 13,185 | 18,504 |
| 3 | 16,201 | 1,223 | 13,757 | 18,645 |
| 4 | 16,329 | 1,245 | 13,840 | 18,817 |
| 5 | 15,616 | 1,370 | 12,877 | 18,355 |
| 6 | 15,149 | 1,949 | 11,252 | 19,046 |
| 7 | 15,587 | 2,329 | 10,932 | 20,242 |
| 8 | 17,214 | 1,914 | 13,387 | 21,040 |
| 9 | 16,708 | 1,461 | 13,787 | 19,630 |
| 10 | 16,963 | 1,488 | 13,990 | 19,937 |
| 11 | 15,470 | 1,413 | 12,645 | 18,295 |
| 12 | 17,178 | 1,655 | 13,869 | 20,487 |
| 13 | 16,143 | 1,796 | 12,553 | 19,734 |
| 14 | 16,236 | 1,813 | 12,611 | 19,861 |
| 15 | 16,010 | 1,429 | 13,152 | 18,867 |
| 16 | 15,747 | 1,246 | 13,257 | 18,238 |
| 17 | 16,415 | 1,578 | 13,261 | 19,570 |
| 18 | 16,009 | 1,569 | 12,872 | 19,146 |
| 19 | 16,474 | 1,644 | 13,186 | 19,761 |
| 20 | 15,815 | 1,534 | 12,748 | 18,881 |
| 21 | 16,490 | 1,461 | 13,570 | 19,410 |
| 22 | 17,175 | 1,513 | 14,149 | 20,200 |
| 23 | 15,229 | 1,354 | 12,523 | 17,935 |
| 24 | 14,712 | 1,332 | 12,049 | 17,374 |
| 25 | 14,772 | 1,440 | 11,893 | 17,650 |
| 26 | 13,418 | 1,402 | 10,616 | 16,221 |
| 27 | 12,267 | 1,330 | 9,609 | 14,926 |

**Table 5**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *Demographic Characteristics per Treatment* | | | | | | | | | | |
|  | mean age |  | gender |  | student |  |  |  | income |  |
| treatment |  | female | male | other | bachelor | master | PhD | low | mid | high |
| info | 25,4 | 10 | 10 | 0 | 1 | 16 | 3 | 14 | 4 | 1 |
| nudge | 26,14 | 9 | 10 | 2 | 1 | 16 | 4 | 15 | 3 | 0 |
| boost | 25,05 | 12 | 7 | 1 | 3 | 12 | 5 | 14 | 3 | 0 |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | English proficiency | |  |  |  |  |  |  |
| treatment | elementary | intermed | upper | advanced | proficient | native |  |  |  |  |
| info | 0 | 1 | 2 | 5 | 8 | 4 |  |  |  |  |
| nudge | 0 | 3 | 3 | 6 | 6 | 3 |  |  |  |  |
| boost | 2 | 2 | 1 | 3 | 11 | 1 |  |  |  |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Table 6** | *Region of Origin per Experimental Condition* | | | | | | |
|  |  | Region | | | | | |
| Treatment | Metric | Asia Pacific | Africa | Europe | Arab states | Middle East | Total |
| information provision baseline | Count | 5 | 4 | 6 | 1 | 4 | 20\* |
| % within treatment | 25.0% | 20.0% | 30.0% | 5.0% | 20.0% | 100.0% |
| % within nationality | 33.3% | 44.4% | 35.3% | 25.0% | 28.6% | 33.9% |
| % of Total | 8.5% | 6.8% | 10.2% | 1.7% | 6.8% | 33.9% |
| nudge | Count | 5 | 3 | 3 | 2 | 7 | 20 |
| % within treatment | 25.0% | 15.0% | 15.0% | 10.0% | 35.0% | 100.0% |
| % within nationality | 33.3% | 33.3% | 17.6% | 50.0% | 50.0% | 33.9% |
| % of Total | 8.5% | 5.1% | 5.1% | 3.4% | 11.9% | 33.9% |
| boost | Count | 5 | 2 | 8 | 1 | 3 | 19 |
| % within treatment | 26.3% | 10.5% | 42.1% | 5.3% | 15.8% | 100.0% |
| % within nationality | 33.3% | 22.2% | 47.1% | 25.0% | 21.4% | 32.2% |
| % of Total | 8.5% | 3.4% | 13.6% | 1.7% | 5.1% | 32.2% |
| Note: \*Six participants decided not to share their nationality | | | | | | | |

**Table 7**

|  |  |  |  |
| --- | --- | --- | --- |
| *Tests for association between demographics and treatment* | | | |
| Pearson Chi-Square | Value | df | Asymptotic Significance (2-sided) |
| age | 31,775 | 30 | 0.378 |
| gender | 3,076 | 4 | 0.545 |
| student status | 8,691 | 10 | 0.562 |
| income | 2,983 | 4 | 0.561 |
| English proficiency | 10,276 | 10 | 0.417 |
| origin | 5,239 | 8 | 0.732 |
|  |  |  |  |