**TABLE 1**

**Basic differences between the instruction in the constructivist and behaviorist treatments with their respective sample sizes.**

| Constructivist classroom (*n* = 188) | Behaviorist classroom (*n* = 163) |
|---|---|
| • Experiences precede conclusions<br>• Conclusions generated by students<br>• Reflection strongly encouraged | • Conclusions precede experiences<br>• Conclusions generated by instructor<br>• Reflection not encouraged |

**TABLE 2**

**Representation of the four treatment groups created in the full factorial of the active vs. less-active and the constructivist vs. behaviorist treatments (with their respective sample sizes).**

| Constructivist | Behaviorist |
|---|---|
| Active/Constructivist (*n* = 111) | Active/Behaviorist (*n* = 86) |
| Less active/Constructivist (*n* = 77) | Less active/Behaviorist (*n* = 77) |

**TABLE 3**

**All eight treatment groups utilized in this study, with the total sample size for each treatment.**

| Constructivist | Behaviorist |
|---|---|
| Active constructivist with journaling (*n* = 36) | Active behaviorist with journaling (*n* = 29) |
| Active constructivist without journaling (*n* = 75) | Active behaviorist without journaling (*n* = 57) |
| Less-active constructivist with journaling (*n* = 40) | Less-active behaviorist with journaling (*n* = 34) |
| Less-active constructivist without journaling (*n* = 37) | Less-active behaviorist without journaling (*n* = 43) |

*Note.* The active constructivist without journaling and the active behaviorist without journaling consisted of two sections assigned to the same treatment condition.

**TABLE 4**

**Mean pre-instruction demographic data by treatment group.**

| Factor | Active (%) | Less active (%) | Constructivist (%) | Behaviorist (%) | Journaling (%) | Not journaling (%) |
|---|---|---|---|---|---|---|
| Religiosity | 46.90 | 47.93 | 48.14 | 46.42 | 47.75 | 47.07 |
| LCTSR | 13.99 | 13.68 | 13.65 | 14.10 | 14.00 | 13.76 |
| KEE (Pre-instruction) | 5.55 | 5.57 | 5.76 | 5.53 | 5.66 | 5.49 |
| MATE (Pre-instruction) | 60.96 | 60.30 | 59.75 | 61.75 | 60.39 | 60.87 |
| STEM | 57.21 | 46.71 | 52.63 | 52.76 | 56.34 | 50.24 |

**TABLE 5**

**Multiple regression output for all 351 students incorporating all measured variables, with MATE change as the dependent variable.**

| Model | B | Std. Error | β | *t* | p-value |
|---|---|---|---|---|---|
| (Constant) | 12.1590 | 3.5860 | | 3.3900 | .001 |
| KEE (Pre-instruction) | 1.790 | .470 | .237 | 3.808 | .000 |
| MATE (Pre-instruction) | -.498 | .047 | -.591 | -10.614 | .000 |
| KEE change | 1.842 | .367 | .275 | 5.017 | .000 |
| Journaling | .266 | 1.310 | .009 | .203 | .839 |
| Active | .711 | 1.303 | .025 | .545 | .586 |
| Constructivist | -1.484 | 1.280 | -.053 | -1.159 | .247 |
| Female | .059 | 1.374 | .002 | .043 | .966 |
| STEM | -.328 | 1.279 | -.012 | -.256 | .798 |
| LCTSR | .028 | .152 | .010 | .181 | .856 |
| Believe in God | 3.100 | 3.301 | .051 | .939 | .348 |
| Religiosity | -.099 | .052 | -.112 | -1.899 | .058 |
| Age | -1.020 | .198 | -.025 | -.516 | .606 |

*Note. B* = unstandardized regression coefficient; β = standardized coefficient.

**TABLE 6**

**Multiple regression output for all measured variables, including all possible interactions of treatments, with MATE change as the dependent variable.**

| Model | *B* | Std. Error | ß | t | p-value |
|---|---|---|---|---|---|
| (Constant) | 11.443 | 3.888 | | 2.944 | .003 |
| KEE (Pre-instruction) | 1.733 | .473 | .229 | 3.664 | .000 |
| MATE (Pre-instruction) | -5.070 | .047 | -.602 | -10.694 | .000 |
| KEE change | 1.811 | .369 | .271 | 4.909 | .000 |
| Journaling | 3.306 | 2.758 | .116 | 1.199 | .231 |
| Active | 1.885 | 2.405 | .067 | .784 | .434 |
| Constructivist | -1.385 | 2.674 | -.049 | -.518 | .605 |
| Female | .135 | 1.383 | .005 | .098 | .922 |
| STEM | -2.950 | 1.280 | -.011 | -.231 | .818 |
| LCTSR | .056 | .154 | .020 | .365 | .715 |
| Believe in God | 3.103 | 3.311 | .051 | .937 | .349 |
| Religiosity | -1.070 | .053 | -.120 | -2.038 | .042 |
| Age | -.116 | .201 | -.028 | -.579 | .563 |
| Journal x Active | -6.460 | 3.862 | -.183 | -1.673 | .095 |
| Journal x Constructivist | -3.296 | 3.876 | -.098 | -.850 | .396 |
| Active x Constructivist | -.361 | 3.366 | -.012 | -.107 | .915 |
| Journal x Active x Constructivist | 7.333 | 5.216 | .166 | 1.406 | .161 |

*Note. B* = unstandardized regression coefficient; ß= standardized coefficient.