Table A1: The characteristics of participants in each of the treatment groups.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Treatment  Group | Ratio between sex  Males: Females | Mean Age | Mean Years of Study | Mean # of related chemistry courses | Ratio between study materials  Textbook: Lecture Notes: Online: Youtube | Ratio between learning style  Auditory: Visual: Kinesthetic | % of students who own a cellphone |
| Spring Analogy | 9:12 | 20.8 | 2.48 | 6.71 | 18:20:9:14 | 1: 1.78: 1.67 | 95.2% |
| Sphere Analogy | 10:12 | 20.8 | 2.18 | 7 | 18:21:7:14 | 1: 1.67: 1 | 95.4% |