# Supplementary material

**TABLE S1 | Knowledge declared by men and women for the nine tasks, before and after carrying them out.**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Task (before/after) | Mean (17 women)# | Mean (22 men)# | Standard deviation (women) | Standard deviation (men) | Difference | Rank sum (women) | Rank sum (men) | Sig. |
| T1: What scientists who have done research on the greenhouse effect do you know? (Before) | 1.53 | 1.63 | 0.62 | 0.73 | 0.1 | 19.29 | 20.55 | .747 |
| T1: (After) | 3.06 | 2.86 | 0.75 | 0.83 | -0.2 | 21.68 | 18.70 | .424 |
| T2: How could we obtain evidence to prove that it is CO2? (Before) | 2.35 | 3.27 | 0.79 | 1.28 | 0.92 | 15.41 | 23.55 | .027\* |
| T2: (After) | 4.12 | 4.41 | 0.99 | 0.85 | 0.29 | 18.21 | 21.39 | .392 |
| T3: Hypothesize about the effect of CO2 on temperature (Before) | 2.53 | 3.36 | 0.80 | 1.18 | 0.83 | 15.50 | 23.48 | .029\* |
| T3: (After) | 4.12 | 4.32 | 0.99 | 0.95 | 0.2 | 18.68 | 21.02 | .528 |
| T4: Design and evaluate experiments to test your hypothesis (Before) | 2.53 | 2.91 | 0.87 | 1.27 | 0.38 | 18.29 | 21.32 | .424 |
| T4: (After) | 4.12 | 4.27 | 0.86 | 0.88 | 0.15 | 18.74 | 20.98 | .547 |
| T5: Analysis of temperature data (Before) | 2.35 | 3.36 | 1.00 | 1.40 | 1.01 | 15.50 | 23.48 | .029\* |
| T5: (After) | 4.12 | 4.50 | 0.99 | 0.86 | 0.38 | 17.50 | 21.93 | .232 |
| T6: To what extent does CO2 contribute to temperature increase? (Before) | 2.94 | 3.41 | 0.75 | 1.10 | 0.47 | 17.50 | 21.93 | .232 |
| T6: (After) | 4.23 | 4.41 | 0.97 | 0.80 | 0.18 | 19.09 | 20.70 | .664 |
| T7: Model to explain why the temperature in the flask rises (Before) | 2.29 | 2.77 | 0.85 | 1.19 | 0.48 | 17.53 | 21.91 | .243 |
| T7: (After) | 4.23 | 4.23 | 0.97 | 0.81 | 0 | 20.44 | 19.66 | .834 |
| T8: Usefulness of the game for self-assessment of learning (Before) | 2.41 | 2.32 | 1.00 | 1.21 | -0.09 | 20.97 | 19.25 | .644 |
| T8: (After) | 4.06 | 3.27 | 0.97 | 1.42 | -0.79 | 23.47 | 17.32 | .098 |
| T9: Contents of the didactic unit as a whole (Before) | 1.94 | 2.45 | 0.75 | 1.26 | 0.51 | 17.85 | 21.66 | .305 |
| T9: (After) | 3.47 | 3.73 | 1.01 | 1.16 | 0.26 | 18.32 | 21.30 | .424 |

*\*The correlation is significant at the 0.05 level.* #21 people responded anonymously.

Imagen que contiene Texto

Descripción generada automáticamente

**Fig. S1: Implementation of the teaching unit.**