Data combination

This Includes:

Combination of mean& standard deviation:

If you want to estimate a combination of mean ($\bar{x}$)and standard deviation (σ) of two groups,define the following values:

1) Sample size of each group(N)
2) Mean (M) of each group
3) Standard deviation (SD) of each group

Put each of which into the corresponding cell of the Inputs >> click calculate >>
you'll get the combined data presented by mean and standard deviation in the Output squares

The output was calculated upon the following equation:
A) Sample size combination: $N_1 + N_2$
B) Mean Combination:

$$\frac{N_1 M_1 + N_2 M_2}{N_1 + N_2}$$

C) Standard deviation combination:

$$\sqrt{\frac{(N_1 - 1)SD_1{}^2 + (N_2 - 1)SD_2{}^2 + \frac{N_1 N_2}{N_1 + N_2}(M_1{}^2 + M_2{}^2 - 2M_1 M_2)}{N_1 + N_2 - 1}}$$

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{Higgins, 2008 #4}{Higgins, 2008 #4}

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