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This Excel accompanies the Guidance Note: *How do we know teacher professional deve*
Establishing a reasonable benchmarking target for the chosen indicator . This Excel is
input average baseline teaching scores, and explore projected endline teaching scores u
score, following the information provided under Step 3 of the Guidance Note.

STEP A. Input baseline teaching score.

Begin by inputting the baseline average teaching score for the selected population in cell E13 highlighted in yellow. If you are using the Teach classroom observation tool, this should be a value within the range from 1.0 to 5.0.

STEP B. Assume standard deviation of scores, or input value.

If you know the baseline standard deviation of scores, input in cell E20 highlighted in yellow. Otherwise, leave the field with an assumed value of 0.55, and jump to Step C. Based on the assumed standard deviation for baseline (0.550), endline (0.480), and expected correlation of basedline and endline scores, the calculator will produce a value for adjusted standard deviation (SD within) described in Equation 5. You can update the assumptions for the endline standard deviation and correlation if additional information is available.

STEP C. Review the projected average endline score based on different scenarios of improvement, and utilize the projections to inform your selection of a target average endline score.

Based on the baseline teaching score, the table to the right provides the endline mean teaching values under different scenarios of effect size growth. Column D provides different desired effect sizes and corresponding average endline teaching scores (Column E) and average score % increase from baseline to endline (Column F). Review the table and use the numbers to inform your selection on a desired effect size, based on the information provided under Step 3 of the Guidance Note. As indicated in the Note, it is recommended to establish an average endline score between values from 0.2 to 0.5 Effect Size (ES) units. Those values are highlighted in light blue in the table to the right.

Additional calculation of proportion in endline score increases for different average baseline scores and effect sizes.

In addition to the three steps presented above, we present different scenarios of the proportion of score increase for different average baseline scores and effect sizes. To calculate these proportions of score increase, we use again the SD Within statistic, which is the product of the baseline standard deviation, endline standard deviation, and the correlation included in the steps above.

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teaching practices in the classroom - Endline Score Projection Table. Washingto

v do we know teacher professional development is working?
Measuring changes in teaching practices in the classroom

Endline Score Projection Table

lopment is working? Measuring changes in teaching practices in the classroom (2021). The Excel i
meant to be used to calculate projected endline teaching scores under different improvement sce
under different improvement scenarios. Project leaders can then use the different projections to ir

Data inputs	INPUT BELOW
Baseline Teaching Score Mean	2.100

Data inputs	INPUT BELOW
Baseline Standard Deviation	0.550

SDwithin Calculations and Assumptions [DO NOT EDIT]	
Endline Standard Deviation	***0.480***
Correlation (Baseline-Endline)	***0.900***
SD Numerator	***0.240***
SD Denominator	***0.447***
SD within	***0.537***

Projected Average Endline Score, under different improvement scenarios

Desired effect size	Endline mean	Average score % increase
0.05	*2.127*	*1.3%*
0.1	*2.154*	*2.6%*
0.2	***2.207***	***5.1%***
0.3	***2.261***	***7.7%***
0.4	***2.315***	***10.2%***
0.5	***2.369***	***12.8%***
0.6	*2.422*	*15.3%*
0.7	*2.476*	*17.9%*
0.8	*2.530*	*20.5%*
0.9	*2.583*	*23.0%*
1	*2.637*	*25.6%*

Projected proportion of endline average score increse under different average		
Average baseline score	**0.2**	**0.3**
2	*5.4%*	*8.1%*
2.1	*5.1%*	*7.7%*
2.2	*4.9%*	*7.3%*
2.3	*4.7%*	*7.0%*
2.4	*4.5%*	*6.7%*
2.5	*4.3%*	*6.4%*
2.6	*4.1%*	*6.2%*
2.7	*4.0%*	*6.0%*
2.8	*3.8%*	*5.8%*
2.9	*3.7%*	*5.6%*
3	*3.6%*	*5.4%*
3.1	*3.5%*	*5.2%*
3.2	*3.4%*	*5.0%*
3.3	*3.3%*	*4.9%*
3.4	*3.2%*	*4.7%*
3.5	*3.1%*	*4.6%*
3.6	*3.0%*	*4.5%*
3.7	*2.9%*	*4.4%*
3.8	*2.8%*	*4.2%*
3.9	*2.8%*	*4.1%*
4	*2.7%*	*4.0%*

res, Ezequiel Molina, and Adelle Pushparatnam. 2021. How do we know teacher professio
n, DC: The World Bank. License: Creative Commons Attribution CC BY 4.0 IGO.

s provided as supplementary material to ***Step 3:***
enarios. Project leaders are encouraged to use this Excel to
nform their choice of a target average endline teaching

e baseline score and effect size scenarios	
0.4	**0.5**
10.7%	*13.4%*
10.2%	*12.8%*
9.8%	*12.2%*
9.3%	*11.7%*
9.0%	*11.2%*
8.6%	*10.7%*
8.3%	*10.3%*
8.0%	*9.9%*
7.7%	*9.6%*
7.4%	*9.3%*
7.2%	*9.0%*
6.9%	*8.7%*
6.7%	*8.4%*
6.5%	*8.1%*
6.3%	*7.9%*
6.1%	*7.7%*
6.0%	*7.5%*
5.8%	*7.3%*
5.7%	*7.1%*
5.5%	*6.9%*
5.4%	*6.7%*

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