

Teacher Job Satisfaction Scale, Physics

The Teacher Job Satisfaction (TJS) scale was created based on how often teachers responded positively to the seven statements described below.

Items in the TIMSS Advanced 2015 Teacher Job Satisfaction Scale, Physics¹

How often do you feel the following way about being a teacher?	
	Very often Often Sometimes Never or almost never
PTBG10A	1) I am content with my profession as a teacher ----- ○ ————— ○ ————— ○ ————— ○
PTBG10B	2) I am satisfied with being a teacher at this school --- ○ ————— ○ ————— ○ ————— ○
PTBG10C	3) I find my work full of meaning and purpose ----- ○ ————— ○ ————— ○ ————— ○
PTBG10D	4) I am enthusiastic about my job ----- ○ ————— ○ ————— ○ ————— ○
PTBG10E	5) My work inspires me----- ○ ————— ○ ————— ○ ————— ○
PTBG10F	6) I am proud of the work I do ----- ○ ————— ○ ————— ○ ————— ○
PTBG10G	7) I am going to continue teaching for as long as I can ----- ○ ————— ○ ————— ○ ————— ○

¹ For the purpose of scaling, categories in which there were very few respondents were combined. The categories “Sometimes” and “Never or almost never” were combined for all variables. The scale statistics that are reported herein reflect analysis of the items following collapsing.

Item Parameters for the TIMSS Advanced 2015 Teacher Job Satisfaction Scale, Physics

Item	delta	tau_1	tau_2	Infit
PTBG10A	0.15383	-1.80976	1.80976	1.02
PTBG10B	-0.38606	-1.52386	1.52386	1.29
PTBG10C	-0.60185	-1.68715	1.68715	0.93
PTBG10D	0.30247	-1.45516	1.45516	0.87
PTBG10E	0.45983	-1.54534	1.54534	0.86
PTBG10F	-0.15541	-1.45758	1.45758	1.03
PTBG10G	0.22719	-1.16800	1.16800	1.47

Scale Transformation Constants for the TIMSS Advanced 2015 Teacher Job Satisfaction Scale, Physics

Scale Transformation Constants

A = 9.030432

B = 0.897591

Transformed Scale Score = 9.030432 + 0.897591 • Logit Scale Score

Equivalence Table of the Raw Score and the Transformed Scale Score for the TIMSS Advanced 2015 Teacher Job Satisfaction Scale, Physics

Raw Score	Transformed Scale Score	Cutpoint
0	5.13977	
1	6.27326	
2	6.89329	
3	7.37441	7.4
4	7.80316	
5	8.21352	
6	8.62591	
7	9.04442	
8	9.46026	
9	9.86512	
10	10.26699	
11	10.68423	10.6
12	11.15621	
13	11.76054	
14	12.88244	

SOURCE: IEA's Trends in International Mathematics and Science Study – TIMSS 2015



Cronbach's Alpha Reliability Coefficient and Principal Components Analysis of the Items in the TIMSS Advanced 2015 Teacher Job Satisfaction Scale, Physics

Country	Cronbach's Alpha Reliability Coefficient	Percent of Variance Explained	Component Loadings for Each Item						
			PTBG10A	PTBG10B	PTBG10C	PTBG10D	PTBG10E	PTBG10F	PTBG10G
France	0.91	66	0.83	0.70	0.85	0.84	0.86	0.84	0.74
Italy	0.90	63	0.84	0.70	0.72	0.89	0.86	0.84	0.67
Lebanon	0.91	65	0.77	0.74	0.81	0.85	0.81	0.83	0.82
Norway	0.90	63	0.83	0.76	0.80	0.84	0.90	0.75	0.66
Portugal	0.84	52	0.80	0.70	0.77	0.78	0.71	0.57	0.68
Russian Federation	0.90	64	0.84	0.81	0.77	0.83	0.85	0.81	0.68
Slovenia	0.89	61	0.79	0.62	0.82	0.84	0.91	0.81	0.63
Sweden	0.88	59	0.80	0.68	0.72	0.85	0.84	0.79	0.67
United States	0.92	69	0.84	0.77	0.83	0.88	0.87	0.84	0.77
International Avg.	0.89	62	0.81	0.72	0.79	0.85	0.85	0.79	0.70

Relationship Between the TIMSS Advanced 2015 Teacher Job Satisfaction Scale, and TIMSS Advanced 2015 Physics Achievement

Country	Pearson's Correlation with Physics Achievement		Variance in Physics Achievement Accounted for by Difference Between Regions of the Scale (η^2)
	(r)	(r ²)	
France	0.02	0.00	0.00
Italy	-0.09	0.01	0.02
Lebanon	-0.02	0.00	0.01
Norway	0.01	0.00	0.00
Portugal	0.02	0.00	0.01
Russian Federation	0.07	0.00	0.00
Slovenia	0.20	0.04	0.06
Sweden	0.03	0.00	0.00
United States	0.11	0.01	0.03
International Median	0.02	0.00	0.01

SOURCE: IEA's Trends in International Mathematics and Science Study – TIMSS 2015