



Time used for reading in minutes per week 2011 2012 2013 2014 2015



**Equivalence Table of Raw and Transformed Scale Scores for the TIMSS 2015 Science Confidence in Physics Scale, Eighth Grade**

Raw Score	Transformed Score	Percentage of Students
0	3.271	
1	4.177	
2	5.002	
3	5.772	
	6.502	
	7.002	
	7.372	
7	8.003	
	8.223	
	8.333	
10	8.3	
11	9.032	
12	9.333	
13	9.777	
14	10.377	
15	10.370	
17	10.770	
18	10.773	
19	11.307	
20	11.2	11.1
21	12.121	
22	12.732	
23	13.772	
24	14.277	

TIMSS 2015 Science Confidence in Physics Scale, Eighth Grade

**Cronbach's Alpha Reliability Coefficient and Principal Components Analysis of the Items in the TIMSS 2015 Student Confidence in Physics Scale, Eighth Grade**

Item	Item Mean	Item SD	Item Alpha	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7	Item 8	Item 9	Item 10
Confidence in physics	0.0	.2	0.73	0.7	0.3	0.7	0.72	0.1	0.2	0.71			
Confidence in physics	0.0	.7	0.3	0.72	0.7	0.3	0.7	0.77	0.72	0.7			
Confidence in physics	0.1	.71	0.7	0.7	0.73	0.7	0.7	0.7	0.3	0.2			
Confidence in physics	0.72	.3	0.7	0.3	0.27	0.1	0.7	0.1	0.2	0.1			
Confidence in physics	0.1	.2	0.2	0.70	0.71	0.0	0.7	0.7	0.7	0.7			
Confidence in physics	0.1	.7	0.7	0.73	0.7	0.7	0.7	0.7	0.72	0.73			
Confidence in physics	0.3	.3	0.7	-0.3	-0.1	0.1	0.73	0.7	-0.1	-0.0			
Confidence in physics	0.1	.7	0.7	0.73	0.2	0.2	0.77	0.7	0.7	0.2			
Confidence in physics	0.1	.0	0.2	0.7	0.1	0.3	0.0	0.7	0.7	0.72			
Confidence in physics	0.1	.7	0.0	0.71	0.77	0.2	0.7	0.1	0.1	0.72			

Table 1. Cronbach's Alpha Reliability Coefficient and Principal Components Analysis of the Items in the TIMSS 2015 Student Confidence in Physics Scale, Eighth Grade

