


eS de C de C e (SCC) ca e a c ea ed ba ed de 'deg ee fag ee e e  
e a e e de c bed be . ca e a ad e ed c e e e e ce ce a e a g a  
e a a e bec . See [C](#) [I](#) [IM](#) [PIRL](#) [2011 C](#) [Q](#)  (

----- A — A — A — A

**Exhibit 2: Item Parameters for the TIMSS 2011 Students Confident in Chemistry Scale, Eighth Grade**

Item	delta	tau_1	tau_2	tau_3
BSBC28A	-0.67905	-1.10137	-0.21833	1.31970
BSBC28B*	-0.48218	-1.05655	0.00829	1.04826
BSBC28C*	-0.09253	-1.14085	0.09605	1.04480
BSBC28D	-0.41846	-1.29094	0.01583	1.27511
BSBC28E*	-0.65303	-0.79244	-0.09030	0.88274
BSBC28F	0.01611	-1.29620	0.02835	1.26785
BSBC28G	-0.28580	-1.22059	-0.06589	1.28648
BSBC28H	-0.26874	-1.22266	-0.08015	1.30281
BSBC28I*	-0.32288	-0.81344	-0.01667	0.83011

\*Reverse coded

**Exhibit 3: Scale Transformation Constants**

Scale Transformation Constants

$$A = 9.93429$$

$$B = 1.51722$$

$$\text{Transformed Scale Score} = 9.93429 + 1.51722 \cdot \text{Logit Scale Score}$$

**Exhibit 4: Equivalence Table of the Raw Score and the Transformed Scale Score**

Raw Score	Transformed Scale Score	Cutpoint	Raw Score	Transformed Scale Score	Cutpoint
0	3.27904		14	9.48419	
1	4.99796		15	9.70856	
2	5.82870		16	9.93748	
3	6.39663		17	10.17321	
4	6.84030		18	10.41915	
5	7.21012		19	10.67884	
6	7.53229		20	10.95532	
7	7.82472		21	11.25704	
8	8.08987		22	11.59284	
9	8.34075		23	11.97788	11.9
10	8.57994		24	12.43710	
11	8.81105		25	13.02445	
12	9.03698		26	13.87595	
13	9.26187	9.3	27	15.61734	

