

## Appendix 17F: Item Parameters from the eTIMSS with PSI 2019

	Calibrations	0.020	1.085 (0.132)	1.226 (0.063)	0.121 (0.01)
1_02A	MQ11A02A	0.033	0.890 (0.050)	-0.499 (0.045)	
1_02B	MQ11A02B	0.026	0.786 (0.046)	0.238 (0.041)	
1_02C	MQ11A02C	0.027	0.994 (0.053)	-0.195 (0.036)	
1_03A	MQ11A03A	0.038	0.485 (0.038)	0.480 (0.066)	
1_03B	MQ11A03B	0.032	0.993 (0.053)	-0.194 (0.036)	
1_04A	MQ11A04A	0.027	0.595 (0.027)	0.817 (0.039)	
1_04B	MQ11A04B	0.032	0.995 (0.054)	0.328 (0.034)	

SI01_01	SQ11F01	0.028	0.454 (0.025)	0.762 (0.046)		-0.514 (0.082)	0.514 (0.093)
SI01_02	SQ11F02	0.033	1.007 (0.058)	0.360 (0.033)			
SI01_03	SQ11F03	0.034	0.650 (0.045)	-0.194 (0.054)			
SI01_04	SQ11F04	0.037	0.782 (0.050)	0.055 (0.043)			
SI01_05	SQ11F05	0.032	0.656 (0.047)	0.099 (0.050)			
SI01_06	SQ11F06	0.042	0.424 (0.040)	-0.683 (0.106)			
SI01_07A	SQ11F07A	0.036	0.570 (0.077)	0.061 (0.185)	0.178 (0.059)		
SI01_07B	SQ11F07B	0.019	0.820 (0.079)	1.793 (0.122)			
SI01_08	SQ11F08	0.036	0.546 (0.044)	-0.663 (0.086)			
SI01_09	SQ11F09	0.034	0.737 (0.042)	0.678 (0.033)		0.218 (0.051)	-0.218 (0.060)
SI02_01	SQ11S01	0.035	1.028 (0.057)	-0.103 (0.035)			
SI02_02	SQ11S02	0.031	0.927 (0.055)	0.339 (0.035)			
SI02_03	SQ11S03	0.039	0.448 (0.019)	0.805 (0.043)		-1.580 (0.105)	1.580 (0.113)
SI02_04	SQ11S04	0.030	0.668 (0.036)	0.547 (0.032)		0.157 (0.054)	-0.157 (0.060)
SI02_05	SQ11S05	0.033	0.706 (0.039)	0.731 (0.034)		0.405 (0.049)	-0.405 (0.060)
SI02_07	SQ11S07	0.045	0.498 (0.030)	0.520 (0.045)		0.768 (0.070)	-0.768 (0.079)
SI02_08	SQ11S08	0.028	0.559 (0.047)	0.630 (0.062)			
SI02_09	SQ11S09	0.029	0.734 (0.051)	0.235 (0.045)			

Problem Solving and Inquiry Item Parameters from the eTIMSS with PSI 2019 Calibration—Grade 8 Mathematics

Item	RMSD	Slope ( $a_i$ )	Location ( $b_i$ )	Guessing ( $c_i$ )	Step 1 ( $d_{i1}$ )	Step 2 ( $d_{i2}$ )
MI01_01 MQ12B01	0.032	1.043 (0.066)	0.467 (0.042)			
MI01_02 MQ12B02	0.024	1.779 (0.255)	1.528 (0.057)	0.123 (0.014)		
MI01_03 MQ12B03	0.027	0.617 (0.031)	0.932 (0.047)		-0.880 (0.100)	0.880 (0.111)
MI01_04A MQ12B04A	0.035	1.605 (0.102)	0.846 (0.034)			
MI01_04B MQ12B04B	0.036	1.394 (0.092)	1.023 (0.040)			
MI01_04C MQ12B04C	0.043	0.871 (0.062)	0.921 (0.056)			
MI01_05A MQ12B05A	0.031	1.390 (0.087)	0.771 (0.036)			
MI01_05B MQ12B05B	0.025	1.472 (0.093)	0.816 (0.036)			
MI01_05C MQ12B05C	0.017	0.965 (0.069)	2.084 (0.077)		-0.761 (0.114)	0.761 (0.152)
MI01_06 MQ12R01	0.020	1.400 (0.099)	1.227 (0.046)			
MI01_07A MQ12R02A	0.027	1.092 (0.074)	0.877 (0.046)			
MI01_07B MQ12R02B	0.031	1.086 (0.075)	0.866 (0.047)			
MI01_07C MQ12R02C	0.021	1.626 (0.121)	1.249 (0.043)			
MI02_01 MQ12D01	0.033	1.368 (0.084)	0.629 (0.035)			
MI02_02A MQ12D02A	0.091	0.718 (0.055)	-0.683 (0.077)			
MI02_02B MQ12D02B	0.027	1.428 (0.097)	1.111 (0.042)			
MI02_03 MQ12D03	0.022	1.527 (0.100)	0.977 (0.037)			
MI02_04 MQ12D04	0.043	0.712 (0.053)	0.558 (0.058)			
MI02_05 MQ12D05	0.028	0.905 (0.065)	1.007 (0.057)			
MI02_06A MQ12D06A	0.045	1.978 (0.162)	1.507 (0.044)			
MI02_06B MQ12D06B	0.029	2.461 (0.212)	1.491 (0.038)			
MI02_07A MQ12D07A	0.023	1.314 (0.101)	1.437 (0.056)			
MI02_07B MQ12D07B	0.024	0.910 (0.050)	1.536 (0.049)		-0.616 (0.083)	0.616 (0.103)
MI02_08A MQ12D08A	0.085	0.788 (0.059)	-0.681 (0.072)			
MI02_08B MQ12D08B	0.057	0.594 (0.052)	0.967 (0.082)			

The concurrent calibration model included regular eTIMSS items with item parameters fixed to equal the values from the final eTIMSS 2019 adjusted model calibration (see Chapter 12, Appendix 12M).

SI01_01	SQ12S01	0.044	0.615 (0.055)	-1.052 (0.114)	
SI01_02	SQ12S02	0.044	0.887 (0.069)	-1.004 (0.083)	
SI01_03	SQ12S03	0.027	1.096 (0.075)	0.775 (0.043)	
SI01_04	SQ12S04	0.038	1.090 (0.071)	0.193 (0.039)	
SI01_05	SQ12S05	0.030	0.810 (0.112)	0.345 (0.137)	0.211 (0.054)
SI01_06	SQ12S06	0.045	1.100 (0.075)	0.781 (0.043)	
SI01_07A	SQ12S07A	0.036	1.115 (0.120)		