

Exhibit 3.4: Home Educational Resources
Students' Reports

About the Scale

Students were scored according to their reports regarding the availability of three resources on the *Home Educational Resources* scale. Cut scores divide the scale into three categories. Students with **Many Resources** had a score at or above the cut score corresponding to reporting they had more than 25 books and both study supports in their home and that at least one parent finished university, on average. Students with **Few Resources** had a score at or below the cut score corresponding to reporting they had 10 or fewer books and both study supports in the home and that neither parent had gone beyond upper-secondary education, on average. All other students had **Some Resources**.

Number of books in the home:

- 1) 0–10
- 2) 11–25
- 3) 26–100
- 4) 101–200
- 5) More than 200

Number of home study supports:

- 1) Neither internet access nor own room
- 2) Either internet access or own room
- 3) Both internet access and own room

Highest level of education of either parent:

- 1) Finished some primary or lower-secondary or did not go to school
- 2) Finished lower-secondary
- 3) Finished upper-secondary
- 4) Finished post-secondary education
- 5) Finished university or higher

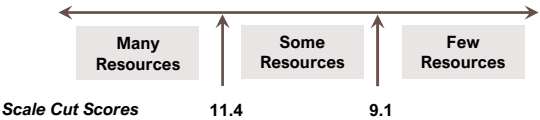


Exhibit 3.5a: Home Educational Resources and Growth in Achievement
Students' Reports in 2023

Country	Many Resources		Some Resources		Few Resources	
	Percent of Students	Average Growth	Percent of Students	Average Growth	Percent of Students	Average Growth
Jordan	11 (0.6)	18 (4.1)	50 (0.8)	16 (3.4)	39 (1.0)	18 (3.5)
Korea, Rep. of	56 (1.3)	7 (1.9)	34 (0.9)	10 (2.1)	11 (0.7)	12 (3.4)
Sweden	42 (1.4)	16 (1.9)	43 (1.1)	8 (1.6)	15 (0.7)	5 (1.7)

This TIMSS context questionnaire scale was established in 2011 based on the combined response distribution of countries that participated in TIMSS 2011. To provide a point of reference for country comparisons, the scale centerpoint of 10 was located at the mean of the combined distribution. The units of the scale were chosen so that 2 scale score points corresponded to the standard deviation of the distribution.

() Standard errors appear in parentheses. Because of rounding some results may appear inconsistent.

Exhibit 3.5b: Home Educational Resources and Average Achievement
Students' Reports in 2023 and 2024

Country	Many Resources		Some Resources		Few Resources		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Jordan							
Grade 8	11 (0.6)	418 (6.6)	50 (0.8)	397 (3.3)	39 (1.0)	371 (3.7)	9.7 (0.03)
Grade 9	12 (0.6)	436 (5.8)	49 (1.0)	414 (3.3)	39 (1.0)	383 (3.8)	9.7 (0.03)
Korea, Rep. of							
Grade 8	56 (1.3)	625 (2.8)	34 (0.9)	573 (2.9)	11 (0.7)	518 (5.7)	11.4 (0.04)
Grade 9	55 (1.2)	632 (3.2)	35 (0.9)	586 (3.0)	10 (0.7)	532 (5.9)	11.4 (0.04)
Sweden							
Grade 8	42 (1.4)	558 (2.7)	43 (1.1)	503 (2.3)	15 (0.7)	459 (3.5)	11.0 (0.04)
Grade 9	44 (1.5)	576 (3.2)	42 (1.1)	514 (3.3)	14 (0.8)	464 (4.8)	11.1 (0.05)

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() Standard errors appear in parentheses. Because of rounding some results may appear inconsistent.

An "r" indicates data are available for at least 70% but less than 85% of the students.

SOURCE: IEA's Trends in International Mathematics and Science Study - TIMSS 2023 Longitudinal
 Downloaded from: <https://timss2023.org/longitudinal/results>

Country	Many Resources		Some Resources		Few Resources	
	Percent of Students	Average Growth	Percent of Students	Average Growth	Percent of Students	Average Growth
Jordan	11 (0.6)	6 (4.7)	50 (0.8)	8 (3.5)	39 (1.0)	12 (3.3)
Korea, Rep. of	56 (1.3)	9 (1.9)	34 (0.9)	8 (1.9)	11 (0.7)	8 (3.7)
Sweden	42 (1.4)	9 (2.2)	43 (1.1)	4 (2.2)	15 (0.7)	1 (2.1)

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Exhibit 3.6b: Home Educational Resources and Average Achievement
Students' Reports in 2023 and 2024

Country	Many Resources		Some Resources		Few Resources		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Jordan							
Grade 8	11 (0.6)	448 (7.2)	50 (0.8)	424 (3.7)	39 (1.0)	395 (3.6)	9.7 (0.03)
Grade 9	12 (0.6)	452 (5.6)	49 (1.0)	433 (3.8)	39 (1.0)	400 (3.6)	9.7 (0.03)
Korea, Rep. of							
Grade 8	56 (1.3)	569 (2.4)	34 (0.9)	527 (2.3)	11 (0.7)	482 (5.1)	11.4 (0.04)
Grade 9	55 (1.2)	578 (2.7)	35 (0.9)	538 (3.0)	10 (0.7)	490 (5.6)	11.4 (0.04)
Sweden							
Grade 8	42 (1.4)	573 (3.1)	43 (1.1)	500 (2.9)	15 (0.7)	442 (4.1)	11.0 (0.04)
Grade 9	44 (1.5)	583 (3.3)	42 (1.1)	508 (3.7)	14 (0.8)	443 (5.7)	11.1 (0.05)

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