

Appendix 9F: Modifications to the PIRLS 2021 Achievement Data

PIRLS 2021

Items Excluded from Scaling for All Countries*

Sharks Item 4 – RE21K04, RP21K04 (attractive distracter)

Items Deleted for All Countries

Learning a New Language Item 12 – RE51R12, RP51R12 (attractive distracter)

The Legend of Troy Item 7 – E041T07 (attractive distracter)

Voyages of Discovery Item 17C – E051V17C (attractive distracter)

Voyages of Discovery Item 19B – E051V19B (severe differential item functioning)

Items Recoded for All Countries

Ostrich and the Hat Item 12 – RE51T12, RP51T12 (2 to 1)

Icelandic Horses Item 15 – RE41I15, RP41I15 (2 to 1)

Zebra and Wildebeest Migration Item 12 – E041Z12 (2 to 1)

Items Deleted by Country

Belgium (Flemish)

Shiny Straw Item 1 – RE21Y01 (translation error)

Belgium (French)

Learning a New Language Item 16 – RP51R16 (low discrimination)

Bulgaria

Sharks Item 11 – RP21K11 (low discrimination)

Training a Deaf Polar Bear Item 14 – RP31P14 (severe differential item functioning)

Chinese Taipei

Shiny Straw Item 3 – RP21Y03 (low discrimination)

Voyages of Discovery Item 5 – E051V05 (negative discrimination)

Croatia

Pemba Sherpa Item 9 – RP41B09 (negative discrimination)

Pemba Sherpa Item 12 – RP41B12 (negative discrimination)

Denmark

Ink Drinker Item 3 – RE51D03 (translation error)

The Summer My Father Was 10 Item 4 – RE31U04 (low discrimination)

Egypt

Ostrich and the Hat Item 2 – RP51T02 (negative discrimination)

World's Bank for Seeds Item 3 – RP51N03 (negative discrimination)

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Items Deleted by Country

Finland

Rainforests Item 16 – E041R16 (translation error)
Voyages of Discovery Item 12– E051V12 (translation error)

France

Sharks Item 12 – RP21K12 (low reliability)

Georgia

Sharks Item 3 – RP21K04 (negative discrimination)

Hong Kong SAR

Ostrich and the Hat Item 2 – RP51T02 (negative discrimination)
Learning a New Language Item 13 – RP51R13 (severe differential item functioning)

Jordan

Ostrich and the Hat Item 2 – RP51T02 (negative discrimination)
World's Bank for Seeds Item 3 – RP51N03 (negative discrimination)

Kosovo

Pemba Sherpa Item 6 – RP41B06 (low discrimination)
World's Bank for Seeds Item 3 – RP51N03 (negative discrimination)
Sharks Item 3 – RP21K04 (negative discrimination)
Hungry Plant Item 4 – RP41H04 (negative discrimination)

Latvia (Russian language only)

Learning a New Language Item 16 – RP51R16 (printing error)

Lithuania

Ostrich and the Hat Item 2 – RE51T02 (translation error)

Macao SAR

Shiny Straw Item 10 – RP21Y10 (severe differential item functioning)

Montenegro

Pemba Sherpa Item 6 – RP41B06 (low discrimination)
Library Mouse Item 11 – RP41M11 (translation error)
Hungry Plant Item 3 – RP41H04 (negative discrimination)

Morocco

Empty Pot Item 9 – RP31M09 (poor reliability)
World's Bank for Seeds Item 3 – RP51N03 (negative discrimination)
Sharks Item 11 – RP21K11 (low discrimination)

Netherlands

Empty Pot Item 4 – RP31M04 (low discrimination)
Sharks Item 4 – RP21K04 (translation error)

North Macedonia

Pemba Sherpa Item 6 – RP41B06 (low discrimination)
World's Bank for Seeds Item 3 – RP51N03 (negative discrimination)
Sharks Item 4 – RP21K04 (translation error)

PIRLS 2021

Items Deleted by Country

Norway

Ink Drinker Item 6 – RE51D06 (translation error)

Oman

Ostrich and the Hat Item 2 – RP51T02 (negative discrimination)
World's Bank for Seeds Item 3 – RP51N03 (negative discrimination)
Sharks Item 3 – RP21K03 (low discrimination)

Russian Federation

Legend of Troy Item 9 – E041T09 (translation error)

Saudi Arabia

Shiny Straw Item 10 – RE21Y10 (translation error)
Shiny Straw Item 14 – RE21Y14 (poor reliability)
Oliver and the Griffin Item 6 – RE41O06 (translation error)

Slovak Republic

Empty Pot Item 3 – RE31M04 (translation error)
Hungry Plant Item 9 – RE41H09 (low discrimination)

South Africa

World's Bank for Seeds Item 3 – RP51N03 (negative discrimination)
Sharks Item 3 – RP21K03 (negative discrimination)

Spain

The Summer My Father Was 10 Item 4 – RE31U04 (translation error)
Library Mouse Item 15 – RE41M15 (low discrimination)

Sweden

Ostrich and the Hat Item 1 – RE51T01 (negative discrimination)
Zebra and Wildebeest Migration Item 2 – E041Z02 (translation error)

Uzbekistan

World's Bank for Seeds Item 3 – RP51N03 (negative discrimination)

Moscow City, Russian Federation

Legend of Troy Item 9 – E041T09 (translation error)

Items beginning with "RE" are digitalPIRLS items and beginning with "E0" are ePIRLS items. Items beginning with "RP" are paperPIRLS items, or bridge items. paperPIRLS trend items deleted or recoded for all countries were also modified for digitalPIRLS bridge samples.