

Section 1

Fourth Grade – Student Questionnaire

Derived Variable Name: ASDG05S

Variable Label: Number of Home Study Supports

Fourth Grade

Title of International Report Exhibit

Home Resources for Learning; Components of the Home Resources for Learning Scale

Report Location

Mathematics 4.1, 4.2;

Science 4.1, 4.2

Procedure

Based on responses to the following question in the Student Questionnaire:

Do you have any of these things in your home? SQG-05de

Own room (ASBG05D),

Internet connection (ASBG05E)

Response options: "Yes"; "No"

0 (ASBG05D = "No" and ASBG05E = "No") = Neither own room nor Internet connection

1 ((ASBG05D = "Yes" and ASBG05E = "No") or (ASBG05D = "No" and ASBG05E = "Yes")) = Either own room or Internet connection but not both

2 (ASBG05D = "Yes" and ASBG05E = "Yes") = Both own room and Internet connection

Set derived variable to missing if either source variable is missing.

0=Neither Own Room nor Internet Connection, 1=Either Own Room or Internet Connection, 2=Both Own Room and Internet Connection

Section 3

Fourth Grade – Teacher Questionnaire

Derived Variable Name: ATDM05

Variable Label: Teachers Majored in Ed and Math

Fourth Grade

Title of International Report Exhibit

Teachers Majored in Education and Mathematics

Report Location

Mathematics 7.3

Procedure

Based on the following questions:

During your <post-secondary>education, what was your major or main area(s) of study? TQG-05A abcdef

"Education- primary/elementary" (ATBG05AA)

"Education- secondary" (ATBG05AB)

"Mathematics" (ATBG05AC)

"Science" (ATBG05AD)

"<Language of test>" (ATBG05AE)

"Other" (ATBG05AF)

If your major or main area of study was education, did you have a <specialization> in any of the following? TQG-05Babcd

"Mathematics" (ATBG05BA)

"Science" (ATBG05BB)

"Language/reading" (ATBG05BC)

"Other" (ATBG05BD)

1 (ATBG05AA=1 AND (ATBG05AC=1 OR ATBG05BA=1)) = Major in primary education and major (or specialization) in mathematics

2 (ATBG05AA=1 AND ((ATBG05AC=2 OR ATBG05BA=2))) = Major in primary education but no major (or specialization) in mathematics

3 (ATBG05AA=2 AND (ATBG05AC=1 OR ATBG05BA=1)) = Major in mathematics but no major in primary education

4 (ATBG05AA=2 AND ((ATBG05AC=2 OR ATBG05BA=2))) = All other majors

Otherwise, set to missing.

1=Major in Primary Education and Major (or Specialization) in Mathematics, 2=Major in Primary Education but No Major (or Specialization) in Mathematics, 3=Major in Mathematics but No Major in Primary Education, 4=All Other Majors

Trend Comments

See ATDMPREP in TIMSS 2007

Derived Variable Name: ATDS05

Variable Label: Teachers Majored in Ed and Science

Fourth Grade

Title of International Report Exhibit

Teachers Majored in Education and Science

Report Location

Science 7.3

Procedure

Based on the following questions:

During your <post-secondary>education, what was your major or main area(s) of study? TQG-05A abcdef

"Education- primary/elementary" (ATBG05AA)

"Education- secondary" (ATBG05AB)

"Mathematics" (ATBG05AC)

"Science" (ATBG05AD)

"<Language of test>" (ATBG05AE)

"Other" (ATBG05AF)

If your major or main area of study was education, did you have a <specialization> in any of the following? TQG-05Babcd

"Mathematics" (ATBG05BA)

"Science" (ATBG05BB)

"Language/reading" (ATBG05BC)

"Other" (ATBG05BD)

1 (ATBG05AA=1 AND (ATBG05AD=1 OR ATBG05BB=1)) = Major in primary education and major (or specialization) in science

2 (ATBG05AA=1 AND ((ATBG05AD=2 OR ATBG05BB=2))) = Major in primary education but no major (or specialization) in science

3 (ATBG05AA=2 AND (ATBG05AD=1 OR ATBG05BB=1)) = Major in science but no major in primary education

4 (ATBG05AA=2 AND ((ATBG05AD=2 OR ATBG05BB=2))) = All other majors

Otherwise, set to missing.

1=Major in Primary Education and Major (or Specialization) in Science, 2=Major in Primary Education but No Major (or Specialization) in Science, 3=Major in Science but No Major in Primary Education, 4=All Other Majors

Trend Comments

See ATDSPREP in TIMSS 2007

Derived Variable Name: ATDG01

Variable Label: Teachers Years of Experience

Fourth Grade

Title of International Report Exhibit

Teachers' Years of Experience

Report Location

Mathematics 7.5;

Science 7.5

Procedure

Based on the following questionnaire from the Teacher Questionnaire, TQG-01 (ATBG01):

By the end of this school year, how many years will you have been teaching altogether?

(Open-response item)

1 (ATBG01 \geq 20) = 20 years or more,2 (ATBG01 \geq 10 and ATBG01 $<$ 20) = At Least 10 But Less Than 20 Years,3 (ATBG01 \geq 5 and ATBG01 $<$ 10) = At Least 5 But Less Than 10 Years,4 (ATBG01 $<$ 5) = Less than 5 years

Set the derived variable to missing if the source variable is missing.

1=20 Years or More, 2=At Least 10 but Less than 20 Years, 3=At Least 5 but Less than 10 Years, 4=Less than 5 Years

Derived Variable Name: ATDM12NU

Variable Label: Teachers Prepared to Teach Number

Fourth Grade

Title of International Report Exhibit

Teachers Feel "Very Well" Prepared to Teach TIMSS Mathematics Topics

Report Location

Mathematics 7.9

Procedure

Based on the teachers' responses to the following question:

How well prepared do you feel you are to teach the following mathematics topics? If a topic is not in the fourth-grade curriculum or you are not responsible for teaching this topic, please choose "Not applicable."

TQM-12Aa-h:

Concepts of whole numbers, including place value and ordering (ATBM12AA),

Adding, subtracting, multiplying and/or dividing with whole numbers (ATBM12AB),

Concepts of fractions (ATBM12AC),

Adding and subtracting with fractions (ATBM12AD),

Concepts of decimals, including place value and ordering (ATBM12AE),

Adding and subtracting with decimals (ATBM12AF),

Number sentences (ATBM12AG),

Number patterns (ATBM12AH)

Response options: "Not applicable"; "Very well prepared"; "Somewhat prepared"; "Not well prepared"

Compute percent of students whose teachers indicate "Very well prepared" (Code 2) for each of the topics. Then, compute the average across the percentage of students whose teachers indicate "Very well prepared" for the content domain. Code to "Missing" if more than one-third of the source topics (variables) are missing or "Not applicable" (Code 1).

Derived Variable Name: ATDM12GE

Variable Label: Teachers Prepared to Teach Geo and Meas

Fourth Grade

Title of International Report Exhibit

Teachers Feel "Very Well" Prepared to Teach TIMSS Mathematics Topics

Report Location

Mathematics 7.9

Procedure

Based on the teachers' responses to the following question:

How well prepared do you feel you are to teach the following mathematics topics? If a topic is not in the fourth-grade curriculum or you are not responsible for teaching this topic, please choose "Not applicable."

TQM-12Ba-g:

Lines: measuring, estimating of; parallel and perpendicular lines (ATBM12BA),

Comparing and drawing angles (ATBM12BB),

Using informal coordinate systems to locate points in a plane (ATBM12BC),

Elementary properties of common geometric shapes (ATBM12BD),

Reflections and rotations (ATBM12BE),

Relationships between two-dimensional and three-dimensional shapes (ATBM12BF),

Finding and estimating areas, perimeters and volumes (ATBM12BG)

Response options: "Not applicable"; "Very well prepared"; "Somewhat prepared"; "Not well prepared"

Compute percent of students whose teachers indicate "Very well prepared" (Code 2) for each of the topics. Then, compute the average across the percentage of students whose teachers indicate "Very well prepared" for the content domain. Code to "Missing" if more than one-third of the source topics (variables) are missing or "Not applicable" (Code 1).

Derived Variable Name: ATDM12DA

Variable Label: Teachers Prepared to Teach Data

Fourth Grade

Title of International Report Exhibit

Teachers Feel "Very Well" Prepared to Teach TIMSS Mathematics Topics

Report Location

Mathematics 7.9

Procedure

Based on the teachers' responses to the following question:

How well prepared do you feel you are to teach the following mathematics topics? If a topic is not in the fourth-grade curriculum or you are not responsible for teaching this topic, please choose "Not applicable."

TQM-12Ca-c:

Reading data from tables, pictographs, and bar graphs (ATBM12CA),

Drawing conclusions from data displays (ATBM12CB),

Displaying data using tables, pictographs, and bar graphs (ATBM12CC)

Response options: "Not applicable"; "Very well prepared"; "Somewhat prepared"; "Not well prepared"

Recode "Not applicable" (code 1) to "Not well prepared" (code 4).

Compute percent of students whose teachers indicate "Very well prepared" (Code 2) for each of the topics. Then, compute the average across the percentage of students whose teachers indicate "Very well prepared" for the content domain.

Code to "Missing" if more than one-third of the source topics (variables) are missing or "Not applicable" (Code 1).

Derived Variable Name: ATDS11LI

Variable Label: Teachers Prepared to Teach Life Science

Fourth Grade

Title of International Report Exhibit

Teachers Feel "Very Well" Prepared to Teach TIMSS Science Topics

Report Location

Science 7.9

Procedure

Based on the teachers' responses to the following question:

How well prepared do you feel you are to teach the following science topics? If a topic is not in the fourth-grade curriculum or you are not responsible for teaching this topic, please choose "Not applicable."

TQS-11Aa-f:

Major body structures and their functions in humans and other organisms (ATBS11AA),

Life cycles and reproduction in plants and animals (ATBS11AB),

Physical features, behavior, and survival of organisms living in different environments (ATBS11AC),

Relationships in a given community (ATBS11AD),

Changes in environments (ATBS11AE),

Human health (ATBS11AF)

Response options: "Not applicable"; "Very well prepared"; "Somewhat prepared"; "Not well prepared"

Compute percent of students whose teachers indicate "Very well prepared" (Code 2) for each of the topics. Then, compute the average across the percentage of students whose teachers indicate "Very well prepared" for the content domain. Code to "Missing" if more than one-third of the source topics (variables) are missing or "Not applicable" (Code 1).

Derived Variable Name: ATDS11PH

Variable Label: Teachers Prepared to Teach Physical Sci

Fourth Grade

Title of International Report Exhibit

Teachers Feel "Very Well" Prepared to Teach TIMSS Science Topics

Report Location

Science 7.9

Procedure

Based on the teachers' responses to the following question:

How well prepared do you feel you are to teach the following science topics? If a topic is not in the fourth-grade curriculum or you are not responsible for teaching this topic, please choose "Not applicable."

TQS-11Ba-h:

States of matter and differences in their physical properties including changes in state of matter by heating and cooling (ATBS11BA),

Classification of objects/materials based on physical properties (ATBS11BB),

Forming and separating mixtures (ATBS11BC),

Familiar changes in materials (ATBS11BD),

Common energy sources/forms and their practical uses (ATBS11BE),

Light (ATBS11BF),

Electrical circuits and properties of magnets (ATBS11BG),

Forces that cause objects to move (ATBS11BH)

Response options: "Not applicable"; "Very well prepared"; "Somewhat prepared"; "Not well prepared"

Compute percent of students whose teachers indicate "Very well prepared" (Code 2) for each of the topics. Then, compute the average across the percentage of students whose teachers indicate "Very well prepared" for the content domain. Code to "Missing" if more than one-third of the source topics (variables) are missing or "Not applicable" (Code 1).

Derived Variable Name: ATDS11ES

Variable Label: Teachers Prepared to Teach Earth Science

Fourth Grade

Title of International Report Exhibit

Teachers Feel "Very Well" Prepared to Teach TIMSS Science Topics

Report Location

Science 7.9

Procedure

Based on the teachers' responses to the following question:

How well prepared do you feel you are to teach the following science topics? If a topic is not in the fourth-grade curriculum or you are not responsible for teaching this topic, please choose "Not applicable."

TQS-11Ca-f:

Water on Earth and air (ATBS11CA),

Common features of Earth's landscape and relationship to human use (ATBS11CB),

Weather conditions from day to day or over the seasons (ATBS11CC),

Fossils of animals and plants (ATBS11CD),

Earth's solar system (ATBS11CE),

Day, night, and shadows due to Earth's rotation and its relationship to the Sun (ATBS11CF)

Response options: "Not applicable"; "Very well prepared"; "Somewhat prepared"; "Not well prepared"

For "Earth Science" topics (ATBS11CA, ATBS11CB, ATBS11CC, ATBS11CD, ATBS11CE, ATBS11CF), recode "Not applicable" (code 1) to "Not well prepared" (code 4).

Compute percent of students whose teachers indicate "Very well prepared" (Code 2) for each of the topics. Then, compute the average across the percentage of students whose teachers indicate "Very well prepared" for the content domain.

Code to "Missing" if more than one-third of the source topics (variables) are missing or "Not applicable" (Code 1).

Derived Variable Name: ATDMHW

Variable Label: Mathematics Instructional Hours per Week

Fourth Grade

Title of International Report Exhibit

Instructional Time Spent on Mathematics

Report Location

Mathematics 8.6

Procedure

Based on the teachers' responses to the following questions:

In a typical week, how much time do you spend teaching mathematics to the students in this class? TQM-01AB (ATBM01A, ATBM01B)

(Open-response item)

Compute mathematics instructional hours per week:

If hours (ATBM01BA) is missing, use ATBM01BB divided by 60,

if minutes (ATBM01BB) is missing, use ATBM01BA,

otherwise use ATBM01BB divided by 60, plus ATBM01BA.

If both minutes and hours are missing, set result to missing.

Derived Variable Name: ATDSHW

Variable Label: Science Instructional Hours per Week

Fourth Grade

Title of International Report Exhibit

Instructional Time Spent on Science

Report Location

Science 8.6

Procedure

Based on the teachers' responses to the following questions:

In a typical week, how much time do you spend teaching science to the students in this class? TQS-01AB (ATBS01BA, ATBS01BB)

(Open-response item)

Compute science instructional hours per week:

If hours (ATBS01BA) is missing, use ATBS01BB divided by 60,

if minutes (ATBS01BB) is missing, use ATBS01BA,

otherwise use ATBS01BB divided by 60, plus ATBS01BA.

If both minutes and hours are missing, set result to missing.

Derived Variable Name: ATDM07NU

Variable Label: Pct Students Taught Number Topics

Fourth Grade

Title of International Report Exhibit

Percentage of Students Taught the TIMSS Mathematics Topics

Report Location

Mathematics 8.8

Procedure

Based on the responses to the following questions in the teacher questionnaire:

The following list includes the main topics addressed by the TIMSS mathematics test. Choose the response that best describes when the students in this class have been taught each topic. If a topic was in the curriculum before the fourth grade, please choose "Mostly taught before this year." If a topic was taught half this year but not yet completed, please choose "Mostly taught this year." If a topic is not in the curriculum, please choose "Not yet taught or just introduced."

TQM-07Aa-h

Concepts of whole numbers, including place value and ordering (ATBM07AA),

Adding, subtracting, multiplying and/or dividing with whole numbers (ATBM07AB),

Concepts of fractions (ATBM07AC),

Adding and subtracting with fractions (ATBM07AD),

Concepts of decimals, including place value and ordering (ATBM07AE),

Adding and subtracting with decimals (ATBM07AF),

Number sentences (ATBM07AG),

Number patterns (ATBM07AH)

Response options: "Mostly taught before this year"; "Mostly taught this year"; "Not yet taught or just introduced"

For each topic, compute the percent of students whose teachers selected "Mostly taught before this year" (Code 1) OR "Mostly taught this year" (Code 2).

Then compute the average across the percentages of students taught the content domain.

Code as "Missing" if more than one-third of the source topics (variables) are missing.

Derived Variable Name: ATDM07GE

Variable Label: Pct Students Taught Geo and Meas Topics

Fourth Grade

Title of International Report Exhibit

Percentage of Students Taught the TIMSS Mathematics Topics

Report Location

Mathematics 8.8

Procedure

Based on the responses to the following questions in the teacher questionnaire:

The following list includes the main topics addressed by the TIMSS mathematics test. Choose the response that best describes when the students in this class have been taught each topic. If a topic was in the curriculum before the fourth grade, please choose "Mostly taught before this year." If a topic was taught half this year but not yet completed, please choose "Mostly taught this year." If a topic is not in the curriculum, please choose "Not yet taught or just introduced."

TQM-07Ba-g:

Lines: measuring, estimating of; parallel and perpendicular lines (ATBM07BA),

Comparing and drawing angles (ATBM07BB),

Using informal coordinate systems to locate points in a plane (ATBM07BC),

Elementary properties of common geometric shapes (ATBM07BD),

Reflections and rotations (ATBM07BE),

Relationships between two-dimensional and three-dimensional shapes (ATBM07BF),

Finding and estimating areas, perimeters and volumes (ATBM07BG)

Response options: "Mostly taught before this year"; "Mostly taught this year"; "Not yet taught or just introduced"

For each topic, compute the percent of students whose teachers selected "Mostly taught before this year" (Code 1) OR "Mostly taught this year" (Code 2).

Then compute the average across the percentages of students taught the content domain.

Code as "Missing" if more than one-third of the source topics (variables) are missing.

Derived Variable Name: ATDM07DA

Variable Label: Pct Students Taught Data Topics

Fourth Grade

Title of International Report Exhibit

Percentage of Students Taught the TIMSS Mathematics Topics

Report Location

Mathematics 8.8

Procedure

Based on the responses to the following questions in the teacher questionnaire:

The following list includes the main topics addressed by the TIMSS mathematics test. Choose the response that best describes when the students in this class have been taught each topic. If a topic was in the curriculum before the fourth grade, please choose "Mostly taught before this year." If a topic was taught half this year but not yet completed, please choose "Mostly taught this year." If a topic is not in the curriculum, please choose "Not yet taught or just introduced."

TQM-07Ca-c:

Reading data from tables, pictographs, and bar graphs (ATBM07CA),

Drawing conclusions from data displays (ATBM07CB),

Displaying data using tables, pictographs, and bar graphs (ATBM07CC)

Response options: "Mostly taught before this year"; "Mostly taught this year"; "Not yet taught or just introduced"

For each topic, compute the percent of students whose teachers selected "Mostly taught before this year" (Code 1) OR "Mostly taught this year" (Code 2).

Then compute the average across the percentages of students taught the content domain.

Code as "Missing" if more than one-third of the source topics (variables) are missing.

Derived Variable Name: ATDS06LI

Variable Label: Pct Students Taught Life Sci Topics

Fourth Grade

Title of International Report Exhibit

Percentage of Students Taught the TIMSS Science Topics

Report Location

Science 8.8

Procedure

Based on the responses to the following questions in the teacher questionnaire:

The following list includes the main topics addressed by the TIMSS science test. Choose the response that best describes when the students in this class have been taught each topic. If a topic was in the curriculum before the fourth grade, please choose "Mostly taught before this year." If a topic was taught half this year but not yet completed, please choose "Mostly taught this year." If a topic is not in the curriculum, please choose "Not yet taught or just introduced."

TQS-06Aa-f

Major body structures and their functions in humans and other organisms (ATBS06AA),

Life cycles and reproduction in plants and animals (ATBS06AB),

Physical features, behavior, and survival of organisms living in different environments (ATBS06AC),

Relationships in a given community (ATBS06AD),

Changes in environments (ATBS06AE),

Human health (ATBS06AF)

Response options: "Mostly taught before this year"; "Mostly taught this year"; "Not yet taught or just introduced"

For each topic, compute the percent of students whose teachers selected "Mostly taught before this year" (Code 1) OR "Mostly taught this year" (Code 2).

Then compute the average across the percentages of students taught the content domain.

Code as "Missing" if more than one-third of the source topics (variables) are missing.

Derived Variable Name: ATDS06PH

Variable Label: Pct Students Taught Phy Sci Topics

Fourth Grade

Title of International Report Exhibit

Percentage of Students Taught the TIMSS Science Topics

Report Location

Science 8.8

Procedure

Based on the responses to the following questions in the teacher questionnaire:

The following list includes the main topics addressed by the TIMSS science test. Choose the response that best describes when the students in this class have been taught each topic. If a topic was in the curriculum before the fourth grade, please choose "Mostly taught before this year." If a topic was taught half this year but not yet completed, please choose "Mostly taught this year." If a topic is not in the curriculum, please choose "Not yet taught or just introduced."

TQS-06Ba-h:

States of matter and differences in their physical properties including changes in state of matter by heating and cooling (ATBS06BA),

Classification of objects/materials based on physical properties (ATBS06BB),

Forming and separating mixtures (ATBS06BC),

Familiar changes in materials (ATBS06BD),

Common energy sources/forms and their practical uses (ATBS06BE),

Light (ATBS06BF),

Electrical circuits and properties of magnets (ATBS06BG),

Forces that cause objects to move (ATBS06BH)

Response options: "Mostly taught before this year"; "Mostly taught this year"; "Not yet taught or just introduced"

For each topic, compute the percent of students whose teachers selected "Mostly taught before this year" (Code 1) OR "Mostly taught this year" (Code 2).

Then compute the average across the percentages of students taught the content domain.

Code as "Missing" if more than one-third of the source topics (variables) are missing.

Derived Variable Name: ATDS06ES

Variable Label: Pct Students Taught Earth Sci Topics

Fourth Grade

Title of International Report Exhibit

Percentage of Students Taught the TIMSS Science Topics

Report Location

Science 8.8

Procedure

Based on the responses to the following questions in the teacher questionnaire:

The following list includes the main topics addressed by the TIMSS science test. Choose the response that best describes when the students in this class have been taught each topic. If a topic was in the curriculum before the fourth grade, please choose "Mostly taught before this year." If a topic was taught half this year but not yet completed, please choose "Mostly taught this year." If a topic is not in the curriculum, please choose "Not yet taught or just introduced."

TQS-06Ca-f:

Water on Earth and air (ATBS06CA),

Common features of Earth's landscape and relationship to human use (ATBS06CB),

Weather conditions from day to day or over the seasons (ATBS06CC),

Fossils of animals and plants (ATBS06CD),

Earth's solar system (ATBS06CE),

Day, night, and shadows due to Earth's rotation and its relationship to the Sun (ATBS06CF)

Response options: "Mostly taught before this year"; "Mostly taught this year"; "Not yet taught or just introduced"

For each topic, compute the percent of students whose teachers selected "Mostly taught before this year" (Code 1) OR "Mostly taught this year" (Code 2).

Then compute the average across the percentages of students taught the content domain.

Code as "Missing" if more than one-third of the source topics (variables) are missing.

Section 4

Fourth Grade – School Questionnaire

Derived Variable Name: ACDG03

Variable Label: School Composition by Student Backgd

Fourth Grade

Title of International Report Exhibit

School Composition by Student Economic Background

Report Location

Mathematics 5.3;

Science 5.3

Procedure

Based on the following question:

Approximately what percentage of students in your school have the following backgrounds? SCQ-3 (ACBG03A and ACBG03B)

Response options: "0 to 10%"; "11 to 25%"; "26 to 50%"; "More than 50%"

1 (ACBG03A \leq 2 ("0 to 10%" or "11 to 25%") and ACBG03B \geq 3 ("26 to 50%"; "More than 50%")) = Schools With More Affluent Than Disadvantaged Students

3 (ACBG03A \geq 3 ("26 to 50%"; "More than 50%") and ACBG03B \leq 2 ("0 to 10%" or "11 to 25%")) = Schools With More Disadvantaged Than Affluent Students

2 (All other combinations) = Schools with Neither More Affluent nor More Disadvantaged Students

Set the derived variable to missing if either source variable is missing.

1=Schools with More Affluent than Disadvantaged Students, 2= Schools with Neither More Affluent nor More Disadvantaged students, 3= Schools with More Disadvantaged than Affluent Students

Derived Variable Name: ACDGENS

Variable Label: Students Having Early Numeracy Skills

Fourth Grade

Title of International Report Exhibit

Schools Where Students Enter the Primary Grades with Early Numeracy Skills

Report Location

Mathematics 5.7

Procedure

Based on the following questions:

About how many of the students in your school can do the following when they begin primary/elementary school? SCQ-16fgh

Count up to 100 or higher (ACBG16F),

Recognize all 10 written numbers from 1 to 10 (ACBG16G),

Write all numbers from 1-10 (ACBG16H)

Response options: 1="Less than 25%"; 2="25-50%"; 3="51-75%"; 4="More than 75%"

Responses to the items are then averaged.

1 (Average > 3.25) = More than 75% Enter with Skills

2 (2.5 < Average <= 3.25) = 51-75% Enter with Skills

3 (1.75 <= Average <= 2.5) = 25-50% Enter with Skills

4 (Average < 1.75) = Less than 25% Enter with Skills

1=Schools Where More than 75% Enter with Skills, 2=Schools Where 51-75% Enter with Skills, 3= Schools Where 25-50% Enter with Skills, 4= Schools Where Less than 25% Enter with Skills

Derived Variable Name: ACDG09

Variable Label: School Library Books

Fourth Grade

Title of International Report Exhibit

Size of School Library

Report Location

Mathematics 5.13;

Science 5.12

Procedure

Based on the following questions:

Does your school have a library? SCQ-09 (ACBG09)

Response options: "Yes"; "No"

Approximately how many books with different titles does your school library have (exclude magazines and periodicals)? (ACBG09A)

Response options: "250 or fewer"; "251-500"; "501-2,000"; "2,001-5,000"; "5,001-10,000"; "More than 10,000"

Assign students to four categories:

1 (ACBG09=1 ("Yes") and ACBG09A>4 ("5,001-10,000" or "More than 10,000")) = School Library with More than 5,000 Books

2 (ACBG09=1 ("Yes") and ACBG09A=3 or 4 ("501-2,000" or "2,001-5,000")) = School Library with 501-5,000 Books

3 (ACBG09=1 ("Yes") and ACBG09A<3 ("250 or fewer" or "251-500")) = School Library with 500 Books or Less

4 (ACBG09=2 ("No")) = No School Library

1=School Library with More than 5,000 Books, 2=School Library with 500-5,000 Books, 3=School Library with 500 Books or Less, 4=No School Library

Derived Variable Name: ACDGCMP

Variable Label: Computer Availability for Instruction

Fourth Grade

Title of International Report Exhibit

Schools with Computers Available for Instruction

Report Location

Mathematics 5.14;

Science 5.13

Procedure

Based on the following questions:

What is the total enrollment of fourth grade students in your school as of the first day of the month TIMSS 2011 testing begins? SCQ-02 (ACBG02)

(Open-response item)

What is the total number of computers that can be used for instructional purposes by fourth grade students? SCQ-07 (ACBG07)

(Open-response item)

Compute number of students per computer by dividing the number of students by number of computers.

Set number of students per computer to missing if any of the source variables are missing except if the number of computers equals zero.

1 (Number of students per computer ≤ 2.5) = 1 Computer for 1-2 Students

2 (Number of students per computer > 2.5 and < 5.5) = 1 Computer for 3-5 Students

3 (Number of students per computer ≥ 5.5) = 1 Computer for 6 or More Students

4 (ACBG07 = 0) = No computer

1=1 Computer for 1-2 Students, 2=1 Computer for 3-5 Students, 3=1 Computer for 6 or More Students, 4=No Computers Available

Derived Variable Name: ACDG06HY

Variable Label: Total Instructional Hours per Year

Fourth Grade

Title of International Report Exhibit

Instructional Time Spent on Mathematics/Science

Report Location

Mathematics 8.6;

Science 8.6

Procedure

Based on the principals' responses to the following questions:

How many days per year is your school open for instruction? SCQ-06A (ACBG06A)

(Open-response item)

What is the total instructional time, excluding breaks, in a typical day? SCQ-06Bab (ACBG06BA, ACBG06BB)

(Open-response item)

Step 1: Compute instructional hours per day:

If hours (ACBG06BA) is missing, use ACBG06BB divided by 60,

if minutes (ACBG06BB) is missing use ACBG06BA,

otherwise use ACBG06BB divided by 60, plus ACBG06BA.

If both minutes and hours are missing, set result to missing.

Step 2: Compute hours of school per year: Multiply the result of Step 1 by ACBG06A.

Derived Variable Name: ACDG06

Variable Label: Number of Days per Week for Instruction

Fourth Grade

Title of International Report Exhibit

Instructional Time Spent on Mathematics/Science

Report Location

Mathematics 8.6;

Science 8.6

Procedure

Based on the principals' responses to the following questions:

In one calendar week, how many days is the school open for instruction? SCQ-06C (ACBG06C)

Response options: "6 days"; "5 1/2 days"; "5 days"; "4 1/2 days"; "4 days"; "Other"

Compute number of days per week for instruction, ACDG06, by recoding ACBG06C as follows:

1 ("6 days") = 6

2 ("5 1/2 days") = 5.5

3 ("5 days") = 5

4 ("4 1/2 days") = 4.5

5 ("4 days") = 4

6 ("Other") = 3