

CHAPTER 7

International Quality Assurance Program for TIMSS 2019

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Standardized assessment materials and survey operations procedures were developed and adapted from previous cycles so that the TIMSS 2019 data collection met the highest standards. To document data collection activities and verify that the standardized procedures were followed, the TIMSS & PIRLS International Study Center, working with IEA Amsterdam, developed and implemented an International Quality Assurance Program, whereby International Quality Control Monitors visited a sample of schools in each country and observed the TIMSS 2019 assessment administration. The purpose of this chapter is to provide an overview of the International Quality Assurance Program and report on the data collected through this program.

Overview

The International Quality Assurance Program was implemented by independent International Quality Control Monitors (IQCMs) appointed by IEA Amsterdam. The major task of the IQCMs was to conduct site visits during the data collection process. In each country, the IQCM visited a sample of 15 participating schools at each grade during the assessment administration. When there were one or more benchmarking participants from the same country and only one centrally organized national center responsible for all aspects of data collection, the IQCM visited five additional schools in each benchmarking entity in addition to the schools visited for the country as a whole. In countries transitioning to eTIMSS during the 2019 assessment cycle, three additional schools per grade were visited for the paper “bridge” booklet administration.

In each school visited, IQCMs observed the testing sessions and recorded their observations, noting any deviations from the standardized administration script, timing, and procedures. They also interviewed the School Coordinators about their experiences coordinating the assessment. For paper TIMSS, the IQCMs verified that the suggestions made by the international translation and layout verifiers had

been integrated into the final national versions of both the paper achievement booklets and context questionnaires, as documented in the National Adaptation Forms. This was not necessary for digital instruments as the eTIMSS Translation System was able to track all translation and layout verification comments and subsequent changes.

Prior to beginning their assignments, the IQCMs attended a mandatory training session conducted by the TIMSS & PIRLS International Study Center. There were two training sessions, one for Southern Hemisphere countries (September 2018) and one for Northern Hemisphere countries (January 2019). During the training, IQCMs were introduced to the [TIMSS 2019 Survey Operations Procedures](#), the assessment design, and context questionnaires. IQCMs were also supplied with a manual detailing their role and responsibilities as well as the necessary materials for completing the quality control tasks.

An important aspect of the International Quality Assurance Program is the independence of the IQCMs from the national centers. In most participating countries and benchmarking entities, IEA Amsterdam recruited IQCMs who had served in the same role in previous IEA assessments. For the remaining countries, National Research Coordinators assisted IEA Amsterdam in nominating an International Quality Control Monitor. The nominated person could not be a member of the national center, a family member, or personal friend of the National Research Coordinator. Often, this person was a school inspector, ministry official, or retired schoolteacher. The IQCM was required to be fluent in both English and the language(s) spoken in the country.

When necessary, the IQCMs were permitted to recruit assistants to effectively cover the territory and testing timetable. For TIMSS 2019, a total of 71 IQCMs were trained across the 64 participating countries and 6 benchmarking participants. In addition, the IQCMs trained more than 200 assistant monitors.

International Quality Control Monitors observed 493 paperTIMSS (including bridge booklet administration) fourth grade testing sessions, 471 eTIMSS fourth grade testing sessions, 322 paperTIMSS (including bridge booklet administration) eighth grade testing sessions, and 383 eTIMSS eighth grade testing sessions. Altogether, IQCMs observed 1,669 testing sessions for TIMSS 2019. The results of the TIMSS 2019 IQCM observations are reported in the following sections of this chapter.

Quality Control Observations of the TIMSS 2019 Data Collection

International Quality Control Monitors (IQCMs) conducted site visits during the assessment administration to a sample of schools in each country. For each school visit, the IQCMs completed the Classroom Observation Record. The records were completed online via the IEA's Online SurveySystem.

The observation records were organized into the following sections:

- Section A—Documentation of the TIMSS Testing Session
- Section B—Summary Observations of the TIMSS Testing Session

- Section C—Student Questionnaire Administration and Distribution of the Early Learning Survey
- Section D—Interview with the School Coordinator

Documentation and Summary Observations of the TIMSS 2019 Testing Sessions

Sections A and B of the Classroom Observation Record addressed activities that took place during the testing sessions. The assessments were administered in two parts with a break of up to 30 minutes between each part. During test administration, IQCMs were asked to observe the activities of the Test Administrator, such as distributing, collecting, and securing the testing materials, following the assessment administration script, and timing the testing sessions.

The percentages of IQCM responses on these activities are reported in Exhibit 7.1 for paperTIMSS fourth grade testing sessions, Exhibit 7.2 for eTIMSS fourth grade, Exhibit 7.3 for paperTIMSS eighth grade, and Exhibit 7.4 for eTIMSS eighth grade. IQCMs reported that the assessments were conducted in accordance with the international procedures.

Exhibit 7.1: Observations of paperTIMSS 2019 Fourth Grade Administration Sessions – 493 Observations (Percentage of IQCM Responses)

Question	Yes (%)	No (%)	Not Answered or Not Applicable (%)
Did the Test Administrator distribute test booklets according to the booklet assignment on the Student Tracking Form and booklet labels?	98	2	0
Was the total testing time for Part 1 of the testing session equal to the time allowed?	95	5	0
Did the Test Administrator announce, “You have 10 minutes left” prior to the end of Part 1 of the testing session?	93	7	0
Were there any other “time remaining” announcements made during Part 1 of the testing session?	29	71	0
Was the total time for the break between Part 1 and Part 2 of the testing session equal to or less than 30 minutes?	97	3	0
Were the booklets left unattended or unsecured during the break?	4	96	0
Was the total testing time for Part 2 of the testing session equal to the time allowed?	94	6	0
Did the Test Administrator announce “you have 10 minutes left” prior to the end of Part 2 of the testing session?	91	9	0
Were there any other “time remaining” announcements made during Part 2 of the testing session?	28	72	0

Exhibit 7.1: Observations of paperTIMSS 2019 Fourth Grade Administration Sessions – 493 Observations (Percentage of IQCM Responses) (continued)

Question	Yes (%)	No (%)	Not Answered or Not Applicable (%)
Did any students finish either Part 1 or Part 2 of the assessment early (before the time allowed was up)?	85	15	0
Did the Test Administrator have a timer (watch with a seconds hand, a stopwatch, a timer, or a phone with timer) for accurately timing the testing session?	98	2	0
Were the booklets collected and secured after the testing session?	97	3	0

Exhibit 7.2: Observations of eTIMSS 2019 Fourth Grade Administration Sessions – 471 Observations (Percentage of IQCM Responses)

Question	Yes (%)	No (%)	Not Answered or Not Applicable (%)
Did the Test Administrator make sure that students were seated at their assigned computers/tablets (logged into the eTIMSS Player with his/her Student ID and password) according to the Student Tracking Form?	98	2	0
Did the Test Administrator announce, “You have 10 minutes left” prior to the end of Part 1 of the testing session?	82	17	1
Were there any other “time remaining” announcements made during Part 1 of the testing session?	22	77	1
Was the total time for the break between Part 1 and Part 2 of the testing session equal to or less than 30 minutes?	94	5	1
Were the computers and USB sticks or tablets kept secure during the break (e.g., the Test Administrator or a teacher remained in the classroom)?	95	4	1
Did the Test Administrator announce “you have 10 minutes left” prior to the end of Part 2 of the testing session?	80	19	1
Were there any other “time remaining” announcements made during Part 2 of the testing session?	22	77	1
Did the Test Administrator submit the data from each computer/tablet students used for the eTIMSS testing session directly after the testing session?	77	22	1
Did any students finish either Part 1 or Part 2 of the assessment early (logged out before the time was up)?	89	11	0

Exhibit 7.3: Observations of paperTIMSS 2019 Eighth Grade Administration Sessions – 322 Observations (Percentage of IQCM Responses)

Question	Yes (%)	No (%)	Not Answered or Not Applicable (%)
Did the Test Administrator distribute test booklets according to the booklet assignment on the Student Tracking Form and booklet labels?	98	2	0
Was the total testing time for Part 1 of the testing session equal to the time allowed?	92	8	0
Did the Test Administrator announce, “You have 10 minutes left” prior to the end of Part 1 of the testing session?	87	13	0
Were there any other “time remaining” announcements made during Part 1 of the testing session?	33	67	0
Was the total time for the break between Part 1 and Part 2 of the testing session equal to or less than 30 minutes?	96	4	1
Were the booklets left unattended or unsecured during the break?	5	95	0
Was the total testing time for Part 2 of the testing session equal to the time allowed?	93	7	0
Did the Test Administrator announce “you have 10 minutes left” prior to the end of Part 2 of the testing session?	91	9	0
Were there any other “time remaining” announcements made during Part 2 of the testing session?	29	71	0
Did any students finish either Part 1 or Part 2 of the assessment early (before the time allowed was up)?	78	22	0
Did the Test Administrator have a timer (watch with a seconds hand, a stopwatch, a timer, or a phone with timer) for accurately timing the testing session?	95	5	0
Were the booklets collected and secured after the testing session?	94	6	0

Exhibit 7.4: Observations of eTIMSS 2019 Eighth Grade Administration Sessions – 383 Observations (Percentage of IQCM Responses)

Question	Yes (%)	No (%)	Not Answered or Not Applicable (%)
Did the Test Administrator make sure that students were seated at their assigned computers/tablets (logged into the eTIMSS Player with his/her Student ID and password) according to the Student Tracking Form?	98	1	1
Did the Test Administrator announce, “You have 10 minutes left” prior to the end of Part 1 of the testing session?	82	17	1
Were there any other “time remaining” announcements made during Part 1 of the testing session?	22	77	1

Exhibit 7.4: Observations of eTIMSS 2019 Eighth Grade Administration Sessions – 383 Observations (Percentage of IQCM Responses) (continued)

Question	Yes (%)	No (%)	Not Answered or Not Applicable (%)
Was the total time for the break between Part 1 and Part 2 of the testing session equal to or less than 30 minutes?	90	7	3
Were the computers and USB sticks or tablets kept secure during the break (e.g., the Test Administrator or a teacher remained in the classroom)?	95	2	3
Did the Test Administrator announce “you have 10 minutes left” prior to the end of Part 2 of the testing session?	82	17	1
Were there any other “time remaining” announcements made during Part 2 of the testing session?	21	78	1
Did the Test Administrator submit the data from each computer/tablet students used for the eTIMSS testing session directly after the testing session?	66	33	1
Did any students finish either Part 1 or Part 2 of the assessment early (logged out before the time was up)?	81	18	1

In those sessions where the total testing time for a part of the paperTIMSS administration was not equal to the time allowed, many IQCMs reported that it was because students completed their work a few minutes before the allotted time had elapsed. When a few minutes over the time allowed were reported, it was usually the result of a discrepancy in timekeeping. Most classes received a 10-minute announcement, while 29 percent of paperTIMSS and 22 percent of eTIMSS classes also received at least one more timing announcement, most frequently a 5-minute or 2-minute announcement. When the break exceeded 30 minutes, it was often due to schools deciding to follow their regular break schedule. These extended breaks were usually reported to be 35 to 45 minutes in duration.

In accordance with the procedure at the end of the testing session for paperTIMSS, Test Administrators were asked to collect and secure the test booklets. The IQCMs reported that in 97 percent of the fourth grade testing sessions and in 94 percent of the eighth grade sessions this occurred. After each eTIMSS session, Test Administrators were asked to upload the data to IEA’s eTIMSS server, which received, stored securely, and time-stamped all uploads. The international monitors reported observing 77 percent of fourth grade Test Administrators and 66 percent of eighth grade Test Administrators submitting the data directly after the testing sessions. In the remaining sessions, the data was either uploaded via the server computer when the server method was used, or the USBs were removed with the data to be uploaded at a later time.

Exhibits 7.5, 7.6, 7.7, and 7.8 report on the activities conducted during the assessment sessions for fourth grade paperTIMSS, fourth grade eTIMSS, eighth grade paperTIMSS, and eighth grade eTIMSS,

respectively. To standardize test administration, all Test Administrators were instructed to read the script in the Test Administrator Manual to the students. IQCMs reported that in 74 percent of fourth grade and 83 percent of eighth grade paperTIMSS observations, the Test Administrators followed the script exactly. For eTIMSS, 63 percent of both fourth grade and eighth grade Test Administrators followed the script exactly. When the Test Administrator deviated from the script, nearly all modifications were reported to be “minor.”

Exhibit 7.5: paperTIMSS Fourth Grade Test Administrators Following the Test Administration Script – 493 Observations (Percentage of IQCM Responses)

Question	Yes (%)	No (%)	Not Answered or Not Applicable (%)
In your opinion, had the Test Administrator familiarized himself or herself with the test administration script prior to the testing?	93	4	3 (<i>I Cannot Answer</i>) 0 (<i>Not Answered</i>)
Did the Test Administrator follow the test administration script in the Test Administrator Manual ?	74	23 (<i>Minor changes</i>) 3 (<i>Major changes</i>)	0
<i>If the Test Administrator made changes to the script, how would you describe them?</i>			
<i>Additions</i>	16	8	76 (<i>Not Answered</i>) 0 (<i>Not Applicable</i>)
<i>Revisions</i>	11	12	77 (<i>Not Answered</i>) 0 (<i>Not Applicable</i>)
<i>Deletions</i>	10	13	77 (<i>Not Answered</i>) 0 (<i>Not Applicable</i>)
In your opinion, did the Test Administrator address students' questions appropriately?	98	2	0

Exhibit 7.6: eTIMSS Fourth Grade Test Administrators Following the Test Administration Script – 471 Observations (Percentage of IQCM Responses)

Question	Yes (%)	No (%)	Not Answered or Not Applicable (%)
In your opinion, had the Test Administrator familiarized himself or herself with the test administration script prior to the testing?	94	4	2
Did the Test Administrator follow the test administration script in the Test Administrator Manual ?	63	32 (<i>Minor changes</i>) 4 (<i>Major changes</i>)	1
<i>If the Test Administrator made changes to the script, how would you describe them?</i>			
<i>Additions</i>	26	7	67 (<i>Not Answered</i>) 0 (<i>Not Applicable</i>)
<i>Revisions</i>	19	14	67 (<i>Not Answered</i>) 0 (<i>Not Applicable</i>)
<i>Deletions</i>	11	22	67 (<i>Not Answered</i>) 0 (<i>Not Applicable</i>)
In your opinion, did the Test Administrator address students' questions appropriately?	98	2	0

Exhibit 7.7: paperTIMSS Eighth Grade Test Administrators Following the Test Administration Script – 322 Observations (Percentage of IQCM Responses)

Question	Yes (%)	No (%)	Not Answered or Not Applicable (%)
In your opinion, had the Test Administrator familiarized himself or herself with the test administration script prior to the testing?	88	7	5 (<i>I Cannot Answer</i>) 1 (<i>Not Answered</i>)
Did the Test Administrator follow the test administration script in the Test Administrator Manual ?	83	15 (<i>Minor changes</i>) 2 (<i>Major changes</i>)	0
<i>If the Test Administrator made changes to the script, how would you describe them?</i>			
<i>Additions</i>	8	6	86 (<i>Not Answered</i>) 0 (<i>Not Applicable</i>)
<i>Revisions</i>	6	8	86 (<i>Not Answered</i>) 0 (<i>Not Applicable</i>)
<i>Deletions</i>	9	6	85 (<i>Not Answered</i>) 0 (<i>Not Applicable</i>)
In your opinion, did the Test Administrator address students' questions appropriately?	98	2	0

Exhibit 7.8: eTIMSS Eighth Grade Test Administrators Following the Test Administration Script – 383 Observations (Percentage of IQCM Responses)

Question	Yes (%)	No (%)	Not Answered or Not Applicable (%)
In your opinion, had the Test Administrator familiarized himself or herself with the test administration script prior to the testing?	92	4	3 (<i>I Cannot Answer</i>) 1 (<i>Not Answered</i>)
Did the Test Administrator follow the test administration script in the Test Administrator Manual ?	63	31 (<i>Minor changes</i>) 5 (<i>Major changes</i>)	0
<i>If the Test Administrator made changes to the script, how would you describe them?</i>			
<i>Additions</i>	21	11	1 (<i>Not Answered</i>) 67 (<i>Not Applicable</i>)
<i>Revisions</i>	17	16	1 (<i>Not Answered</i>) 66 (<i>Not Applicable</i>)
<i>Deletions</i>	14	18	1 (<i>Not Answered</i>) 67 (<i>Not Applicable</i>)
In your opinion, did the Test Administrator address students' questions appropriately?	97	2	1

Exhibits 7.9 and 7.10 summarize observations on student compliance with instructions and overall cooperation during assessment administration for the fourth grade and eighth grade, respectively. The first two questions in each exhibit apply only to the paperTIMSS assessment since the timing and access to the eTIMSS test was controlled on the computer. According to the IQCM's observations, in almost all the paperTIMSS sessions for both grades, students complied well or very well with the instruction to stop work at the end of both part 1 and part 2. As evidenced in the third question in each exhibit for both paperTIMSS and eTIMSS, the IQCMs described the students as extremely or moderately orderly and cooperative during most of the testing sessions.

Exhibit 7.9: Fourth Grade Student Cooperation During Assessment Administration – 493 paperTIMSS Observations and 471 eTIMSS Observations (Percentage of IQCM Responses)

Question	Very Well (%)	Fairly Well (%)	Not well at all (%)	Not Answered or Not Applicable (%)
When the Test Administrator ended Part 1 of the testing session, how well did the students comply with the instructions to stop work (close their booklets and put their pens down)?	84	16	0	0
When the Test Administrator ended Part 2 of the testing session, how well did the students comply with the instructions to stop work (close their booklets and put their pens down)?	88	12	0	0

Question	Extremely (%)	Moderately (%)	Somewhat (%)	Hardly (%)	Not Answered or Not Applicable (%)
To what extent would you describe the students as orderly and cooperative?	67	30	3	0	0

Exhibit 7.10: Eighth Grade Student Cooperation During Assessment Administration – 322 paperTIMSS Observations and 383 eTIMSS Observations (Percentage of IQCM Responses)

Question	Very Well (%)	Fairly Well (%)	Not well at all (%)	Not Answered or Not Applicable (%)
When the Test Administrator ended Part 1 of the testing session, how well did the students comply with the instructions to stop work (close their booklets and put their pens down)?	85	15	0	0
When the Test Administrator ended Part 2 of the testing session, how well did the students comply with the instructions to stop work (close their booklets and put their pens down)?	87	11	2	0

Question	Extremely (%)	Moderately (%)	Somewhat (%)	Hardly (%)	Not Answered or Not Applicable (%)
To what extent would you describe the students as orderly and cooperative?	73	22	4	0	1

Summary Observations of the TIMSS 2019 Testing Sessions

Exhibits 7.11 and 7.12 report on the IQCMs' general observations of the fourth grade paperTIMSS and eTIMSS assessment administrations, respectively, and Exhibits 7.13 and 7.14 report on the IQCMs' general observations of the eighth grade paperTIMSS and eTIMSS administrations, respectively. Overall, IQCMs reported that the quality of testing sessions was good, very good, or excellent (98% for fourth grade paperTIMSS, 96% for fourth grade eTIMSS, 98% for eighth grade paperTIMSS, and 95% for eighth grade eTIMSS). As these numbers show, the IQCMs observed very few issues overall. In only 1 percent of cases for both grade levels for paperTIMSS and 2 percent for both grade levels for eTIMSS did a student refuse to take the test. In addition, more than 92 percent of the observed testing sessions took place under favorable room conditions that were suitable for students to work without distraction. The large majority of students (93% for fourth grade paperTIMSS, 95% for fourth grade eTIMSS, 96% for eighth grade paperTIMSS, and 95% for eighth grade eTIMSS) followed the direction to store away everything, including electronic devices, for the duration of test administration. The IQCMs also reported that in most of observed testing sessions (95% for fourth grade paperTIMSS, 94% for fourth grade eTIMSS, 93% for eighth grade paperTIMSS, and 92% for eighth grade eTIMSS), students were seated in an arrangement that provided adequate space for students to work and not be distracted by one another.

Specific to eTIMSS, IQCMs reported 79 percent of fourth grade and 76 percent of eighth grade testing sessions had additional personnel in the classroom, usually an IT specialist, IT teacher, class teacher or School Coordinator. Regarding the technical problems noted by the IQCMs, most instances were addressed quickly in the classroom without any loss of data.

Exhibit 7.11: General Observations of the paperTIMSS Fourth Grade Testing Sessions – 493 Observations (Percentage of IQCM Responses)

Question	Yes (%)	No (%)	Not Answered or Not Applicable (%)
Did the student identification information on the test booklets correspond with the Student Tracking Form?	99	1	0
Were any defective test booklets detected and replaced?	2 (BEFORE the testing began) 2 (AFTER the testing began)	98 (BEFORE the testing began) 98 (AFTER the testing began)	0 (BEFORE the testing began) 0 (AFTER the testing began)
<i>If any defective test booklets were replaced, did the Test Administrator replace them appropriately, following instructions in the Test Administrator Manual?</i>	2	0	98 (Not Answered) 0 (Not Applicable)
Did any students refuse to take the test (do not count the students with parental permission denied)?	1	99	0
<i>If a student refused, did the Test Administrator accurately follow the instructions for excusing the student (collect the test booklet and record the incident on the Student Tracking Form)?</i>	1	0	99 (Not Answered) 0 (Not Applicable)

**Exhibit 7.11: General Observations of the paperTIMSS Fourth Grade Testing Sessions – 493
Observations (Percentage of IQCM Responses) (continued)**

Question	Yes (%)	No (%)	Not Answered or Not Applicable (%)			
Were any late students admitted to the testing room?	3 (BEFORE testing began) 2 (AFTER the testing began)	94 (There were no late students) 1 (Late students were not admitted)	0			
Did any students leave the room for an “emergency” during the testing?	17	83	0			
<i>If a student left the room for an “emergency,” did the Test Administrator address the situation appropriately (collect the test booklet, and if readmitted, return the test booklet)?</i>	12	4	84 (Not Answered) 0 (Not Applicable)			
Were there any students requiring special accommodations (e.g., students with visual or hearing impairment, Dyslexia)?	9	91	0			
Did students store away everything, including all electronic devices, such as calculators, cell phones, portable computers, and photo or video cameras, having only a pen or a pencil and the test booklet for the duration of the test administration? (Calculators that do not connect to the Internet are permitted for the eighth grade assessment.)	93	7	0			
During the testing session, did the Test Administrator walk around the room to be sure students were working on the correct section of the test and/or behaving properly?	96	4	0			
In your opinion, were the conditions in the testing room suitable (lighting, temperature, noise, etc.) for the students to work without distractions?	95	4	0			
Did the seating arrangement provide adequate space for students to work and not be distracted by each other?	94	6	0			
Did you see any evidence of students attempting to cheat on the test (e.g., by copying from a neighbor)?	8	92	0			
Question	Excellent (%)	Very Good (%)	Good (%)	Fair (%)	Poor (%)	Not Answered or Not Applicable (%)
In general, how would you describe the overall quality of the testing session?	55	33	10	2	0	0

**Exhibit 7.12: General Observations of the eTIMSS Fourth Grade Testing Sessions – 471
Observations (Percentage of IQCM Responses)**

Question	Yes (%)	No (%)	Not Answered or Not Applicable (%)
Were any defective USB sticks/tablets detected and replaced?	12 (BEFORE the testing began) 6 (AFTER the testing began)	87 (BEFORE the testing began) 93 (AFTER the testing began)	1 (BEFORE the testing began) 1 (AFTER the testing began)
Did any students refuse to take the test (do not count the students with parental permission denied)?	2	97	1
<i>If a student refused, did the Test Administrator record the incident on the Student Tracking Form?</i>	1	0	99 (Not Answered) 0 (Not Applicable)
Were any late students admitted to the testing room?	4 (BEFORE the testing began) 1 (AFTER the testing began)	94 (There were no late students) 1 (Late students were not admitted)	0
Did any students leave the room for an “emergency” during the testing?	20	80	0
Were there any students requiring special accommodations (e.g., students with visual or hearing impairment, Dyslexia)?	16	84	0
Did students store away everything (school books/papers and all electronic devices), having only the computer/tablet and scratch paper used for the testing session?	95	5	0
In your opinion, were the conditions in the testing room suitable (lighting, temperature, noise, etc.) for the students to work without distractions?	94	5	1
Did the seating arrangement provide adequate space for students to work and not be distracted by each other?	93	7	0
Were all students in the participating class tested together in one testing session or in groups (multiple testing sessions due to the number of computers/tablets available)?	81 (one session)	18 (Multiple sessions)	1
If laptops were used, did students have an external mouse available?	39	8	4 (Not Answered) 49 (Not Applicable)
<i>If no, did using the laptop touchpads cause any problems?</i>	1	7	92
In addition to the Test Administrator, were there any additional personnel (e.g., School Coordinator, class teacher, an IT specialist) available during the testing session?	79	20	1
Did any technical problems occur during the testing session?	22	77	1
Did the Test Administrator submit the data from each computer/tablet students used for the eTIMSS testing session directly after the testing session?	77	22	1

Exhibit 7.12: General Observations of the eTIMSS Fourth Grade Testing Sessions – 471
Observations (Percentage of IQCM Responses) (continued)

Question	Excellent (%)	Very Good (%)	Good (%)	Fair (%)	Poor (%)	Not Answered or Not Applicable (%)
In general, how would you describe the overall quality of the testing session?	50	33	13	3	1	0

Exhibit 7.13: General Observations of the paperTIMSS Eighth Grade Testing Sessions – 322
Observations (Percentage of IQCM Responses)

Question	Yes (%)	No (%)	Not Answered or Not Applicable (%)
Did the student identification information on the test booklets correspond with the Student Tracking Form?	99	1	0
Were any defective test booklets detected and replaced?	1 (BEFORE the testing began) 1 (AFTER the testing began)	99 (BEFORE the testing began) 99 (AFTER the testing began)	0 (BEFORE the testing began) 0 (AFTER the testing began)
<i>If any defective test booklets were replaced, did the Test Administrator replace them appropriately, following instructions in the Test Administrator Manual?</i>	1	1	98 (Not Answered) 0 (Not Applicable)
Did any students refuse to take the test (do not count the students with parental permission denied)?	3	97	0
<i>If a student refused, did the Test Administrator accurately follow the instructions for excusing the student (collect the test booklet and record the incident on the Student Tracking Form)?</i>	2	0	98 (Not Answered) 0 (Not Applicable)
Were any late students admitted to the testing room?	6 (BEFORE the testing began) 4 (AFTER the testing began)	86 (There were no late students) 4 (Late students were not admitted)	0
Did any students leave the room for an “emergency” during the testing?	13	87	0
<i>If a student left the room for an “emergency,” did the Test Administrator address the situation appropriately (collect the test booklet, and if readmitted, return the test booklet)?</i>	8	5	87 (Not Answered) 0 (Not Applicable)
Were there any students requiring special accommodations (e.g., students with visual or hearing impairment, Dyslexia)?	7	93	0
Did students store away everything, including all electronic devices, such as calculators, cell phones, portable computers, and photo or video cameras, having only a pen or a pencil and the test booklet for the duration of the test administration? (Calculators that do not connect to the Internet are permitted for the eighth grade assessment.)	96	4	0

Exhibit 7.13: General Observations of the paperTIMSS Eighth Grade Testing Sessions – 322
Observations (Percentage of IQCM Responses) (continued)

Question	Yes (%)	No (%)	Not Answered or Not Applicable (%)
During the testing session, did the Test Administrator walk around the room to be sure students were working on the correct section of the test and/or behaving properly?	96	4	0
In your opinion, were the conditions in the testing room suitable (lighting, temperature, noise, etc.) for the students to work without distractions?	93	7	0
Did the seating arrangement provide adequate space for students to work and not be distracted by each other?	96	4	0
Did you see any evidence of students attempting to cheat on the test (e.g., by copying from a neighbor)?	4	96	0

Question	Excellent (%)	Very Good (%)	Good (%)	Fair (%)	Poor (%)	Not Answered or Not Applicable (%)
In general, how would you describe the overall quality of the testing session?	59	28	11	2	0	0

Exhibit 7.14: General Observations of the eTIMSS Eighth Grade Testing Sessions – 383
Observations (Percentage of IQCM Responses)

Question	Yes (%)	No (%)	Not Answered or Not Applicable (%)
Were any defective USB sticks/tablets detected and replaced?	12 (BEFORE the testing began) 6 (AFTER the testing began)	87 (BEFORE the testing began) 93 (AFTER the testing began)	1 (BEFORE the testing began) 1 (AFTER the testing began)
Did any students refuse to take the test (do not count the students with parental permission denied)?	2	97	1
<i>If a student refused, did the Test Administrator record the incident on the Student Tracking Form?</i>	1	0	1 (Not Answered) 98 (Not Applicable)
Were any late students admitted to the testing room?	8 (BEFORE testing began) 3 (AFTER testing began)	86 (There were no late students) 2 (Late students were not admitted)	1
Did any students leave the room for an “emergency” during the testing?	13	86	1
Were there any students requiring special accommodations (e.g., students with visual or hearing impairment, Dyslexia)?	9	90	1

Exhibit 7.14: General Observations of the eTIMSS Eighth Grade Testing Sessions – 383
Observations (Percentage of IQCM Responses) (continued)

Question	Yes (%)	No (%)	Not Answered or Not Applicable (%)
Did students store away everything (school books/papers and all electronic devices), having only the computer/tablet and scratch paper used for the testing session?	95	4	1
In your opinion, were the conditions in the testing room suitable (lighting, temperature, noise, etc.) for the students to work without distractions?	92	7	1
Did the seating arrangement provide adequate space for students to work and not be distracted by each other?	91	8	1
Were all students in the participating class tested together in one testing session or in groups (multiple testing sessions due to the number of computers/tablets available)?	74	25 (multiple sessions)	1
If laptops were used, did students have an external mouse available?	35	10	2 (Not Answered) 53 (Not Applicable)
<i>If no, did using the laptop touchpads cause any problems?</i>	1	9	90
Did any technical problems occur during the testing session?	27	72	1
In addition to the Test Administrator, were there any additional personnel (e.g., School Coordinator, class teacher, an IT specialist) available during the testing session?	76	23	1

Question	Excellent (%)	Very Good (%)	Good (%)	Fair (%)	Poor (%)	Not Answered or Not Applicable (%)
In general, how would you describe the overall quality of the testing session?	50	32	13	3	10	1

Student Questionnaire Administration

All Student Questionnaires were administered on paper to all students. Exhibits 7.15 and 7.16 summarize the IQCMs' observations of the Student Questionnaire administration for fourth grade and eighth grade, respectively. IQCMs reported that in the majority of the testing sessions, the Student Questionnaires were distributed according to the Student Tracking Forms and questionnaire labels. In some cases, Test Administrators did not follow the Student Questionnaire administration script exactly. In the cases where the Test Administrator deviated from the script, the modifications were reported to be "minor" for the most part. In 28 percent of the observed testing sessions for fourth grade, Test Administrators read

Student Questionnaire questions aloud, and in 64 percent of the fourth grade sessions students answered these questions independently. It should be noted that some schools chose to administer the questionnaire on a different date than the assessment, and in these cases, IQCMs were not required to observe student questionnaire administration.

Exhibit 7.15: Fourth Grade Student Questionnaire Administration – 964 Observations (Percentage of IQCM Responses)

Question	Yes (%)	No (%)	Not Answered or Not Applicable (%)
Was there a break between the end of the achievement testing session and the distribution and administration of the Student Questionnaires?	79	16	5
Did the Test Administrator distribute the Student Questionnaires according to the <i>Student Tracking Form</i> and questionnaire labels?	90	2	7 (Not Answered) 1 (Not Applicable)
Did the Test Administrator follow the questionnaire administration script in the Test Administrator Manual?	69	19 (Minor changes) 3 (Major changes)	6 (Not Answered) 3 (Not Applicable)
<i>If the Test Administrator made changes to the script, how would you describe them?</i>			
<i>Additions</i>	13	7	77 (Not Answered) 3 (Not Applicable)
<i>Revisions</i>	9	11	77 (Not Answered) 3 (Not Applicable)
<i>Deletions</i>	9	10	78 (Not Answered) 3 (Not Applicable)
Did the Test Administrator read the questions aloud to the students?	28	64	6 (Not Answered) 2 (Not Applicable)
After the Student Questionnaire administration, did the Test Administrator distribute the Early Learning Surveys (Home Questionnaires)?	29	62	7 (Not Answered) 2 (Not Applicable)
<i>If the Early Learning Surveys were distributed at this time, did the Test Administrator distribute them according to the Student Tracking Form and survey labels?</i>	27	1	70 (Not Answered) 2 (Not Applicable)

Exhibit 7.16: Eighth Grade Student Questionnaire Administration – 705 Observations (Percentage of IQCM Responses)

Question	Yes (%)	No (%)	Not Answered or Not Applicable (%)
Was there a break between the end of the achievement testing session and the distribution and administration of the Student Questionnaires?	77	20	3
Did the Test Administrator distribute the Student Questionnaires according to the <i>Student Tracking Form</i> and questionnaire labels?	92	2	5 (Not Answered) 1 (Not Applicable)
Did the Test Administrator follow the questionnaire administration script in the Test Administrator Manual?	74	14 (Minor changes) 5 (Major changes)	3 (Not Answered) 4 (Not Applicable)
<i>If the Test Administrator made changes to the script, how would you describe them?</i>			
<i>Additions</i>	7	13	76 (Not Answered) 4 (Not Applicable)
<i>Revisions</i>	7	13	76 (Not Answered) 4 (Not Applicable)
<i>Deletions</i>	10	11	75 (Not Answered) 4 (Not Applicable)

Interview with the School Coordinator

Section D was the final component of the Classroom Observation Record and involved the IQCM conducting an interview with the School Coordinator. The interview addressed issues such as the following:

- Shipment of assessment materials
- Arrangements for test administration
- Responsiveness of the national center to queries
- Necessity for make-up sessions
- Information on the target grade classes in the school

Exhibits 7.17, 7.18, 7.19 and 7.20 show the overall ratings by the IQCMs for fourth grade paperTIMSS, fourth grade eTIMSS, eighth grade paperTIMSS, and eighth grade eTIMSS sessions, respectively. Almost all the School Coordinators reported that the TIMSS administration in their school went “very well” or “satisfactorily” overall. In addition, the School Coordinators noted that the School Coordinator Manual worked well for them and most other school staff members had positive attitudes toward TIMSS testing. The larger percentage in the “Needs Improvement” category for eighth grade paperTIMSS was mainly due to one country that combined School Coordinator and Test Administrator responsibilities. The remaining comments noted that the manual was either too detailed or not detailed enough.

Exhibit 7.17: Interview with the School Coordinator, Overview – paperTIMSS Fourth Grade – 493 Records (Percentage of School Coordinator Responses)

Question	Very well, no problems (%)	Satisfactorily, few problems (%)	Unsatisfactorily, many problems (%)	Not Answered or Not Applicable (%)
Overall, how would you say the testing went?	90	10	0	0

Question	Positive (%)	Neutral (%)	Negative (%)	Not Answered or Not Applicable (%)
Overall, how would you rate the attitude of the other school staff members towards TIMSS?	80	18	1	1

Question	Worked well (%)	Needs improvement (%)	Not Answered or Not Applicable (%)
Overall, do you feel the <i>School Coordinator Manual</i> worked well for you or does it need improvement?	94	5	1

Exhibit 7.18: Interview with the School Coordinator, Overview – eTIMSS Fourth Grade – 471 Records (Percentage of School Coordinator Responses)

Question	Very well, no problems (%)	Satisfactorily, few problems (%)	Unsatisfactorily, many problems (%)	Not Answered or Not Applicable (%)
Overall, how would you say the testing went?	79	18	2	1

Question	Positive (%)	Neutral (%)	Negative (%)	Not Answered or Not Applicable (%)
Overall, how would you rate the attitude of the other school staff members towards TIMSS?	67	28	3	2

Question	Worked well (%)	Needs improvement (%)	Not Answered or Not Applicable (%)
Overall, do you feel the <i>School Coordinator Manual</i> worked well for you or does it need improvement?	89	5	6

Exhibit 7.19: Interview with the School Coordinator, Overview – paperTIMSS Eighth Grade – 322 Records (Percentage of School Coordinator Responses)

Question	Very well, no problems (%)	Satisfactorily, few problems (%)	Unsatisfactorily, many problems (%)	Not Answered or Not Applicable (%)
Overall, how would you say the testing went?	90	9	0	1

Question	Positive (%)	Neutral (%)	Negative (%)	Not Answered or Not Applicable (%)
Overall, how would you rate the attitude of the other school staff members towards TIMSS?	85	15	0	0

Question	Worked well (%)	Needs improvement (%)	Not Answered or Not Applicable (%)
Overall, do you feel the <i>School Coordinator Manual</i> worked well for you or does it need improvement?	90	10	0

Exhibit 7.20: Interview with the School Coordinator, Overview – eTIMSS Eighth Grade – 383 Records (Percentage of School Coordinator Responses)

Question	Very well, no problems (%)	Satisfactorily, few problems (%)	Unsatisfactorily, many problems (%)	Not Answered or Not Applicable (%)
Overall, how would you say the testing went?	82	16	1	1

Question	Positive (%)	Neutral (%)	Negative (%)	Not Answered or Not Applicable (%)
Overall, how would you rate the attitude of the other school staff members towards TIMSS?	69	28	1	2

Question	Worked well (%)	Needs improvement (%)	Not Answered or Not Applicable (%)
Overall, do you feel the <i>School Coordinator Manual</i> worked well for you or does it need improvement?	91	7	2

Exhibits 7.21, 7.22, 7.23, and 7.24 present the details of the School Coordinator interviews for fourth grade paperTIMSS, fourth grade eTIMSS, eighth grade paperTIMSS, and eighth grade eTIMSS, respectively. There were only a small number of cases where components were missing from the shipments of test materials. In some cases where the School Coordinator reported not receiving all of the TIMSS materials, test materials were brought to the school on the testing day by an external Test Administrator. The School Coordinators also reported that in over 90 percent of the schools observed for TIMSS 2019, the national centers were responsive to the school's questions and concerns.

Exhibit 7.21: Interview with the School Coordinator, Details – paperTIMSS Fourth Grade – 493 Records (Percentage of School Coordinator Responses)

Question	Yes (%)	No (%)	Not Answered or Not Applicable (%)
Prior to the testing day, did you have time to check the shipment of materials from the national center?	84	15	1
Did you receive the correct shipment of the materials as listed in your <i>School Coordinator Manual</i> and according to the tracking forms?	93	7	0
<i>If no, did the national center provide the missing materials in time for the testing?</i>	4	2	94 (Not Answered) 0 (Not Applicable)
Was the national center responsive to your questions or concerns?	94	4	2
Was the Teacher Questionnaire(s) administered online?	19	80	1
<i>If the Teacher Questionnaire(s) was administered online, did the teacher(s) encounter any problems?</i>	2	15	83 (Not Answered) 0 (Not Applicable)
Was the School Questionnaire administered online?	19	80	1
<i>If the School Questionnaire was administered online, did the person completing it encounter any problems?</i>	1	17	82 (Not Answered) 0 (Not Applicable)
Was the Early Learning Survey administered online?	6	88	6
<i>If the Early Learning Survey was administered online, do you know of any problems that parents/guardians encountered?</i>	1	4	95 (Not Answered) 0 (Not Applicable)
Do you anticipate that a makeup session will be required at your school?	8	92	0
<i>If yes, do you intend to conduct one?</i>	8	1	2 (Not Answered) 89 (Not Applicable)
Did the students receive any special instructions, motivational talk, or incentives to prepare them for the assessment?	61	39	0
Did you provide the list of classes in the tested grade to the national center?	95	5	0
If there was another international assessment, would you be willing to serve as a School Coordinator?	95	5	0

**Exhibit 7.22: Interview with the School Coordinator, Details – eTIMSS Fourth Grade – 471 Records
(Percentage of School Coordinator Responses)**

Question	Yes (%)	No (%)	Not Answered or Not Applicable (%)
Prior to the testing day, did you have time to check the shipment of materials from the national center?	90	9	1
Did you receive the correct shipment of the materials as listed in your <i>School Coordinator Manual</i> and according to the tracking forms?	96	2	2
<i>If no, did the national center provide the missing materials in time for the testing?</i>	1	1	98 (Not Answered) 0 (Not Applicable)
Was the national center responsive to your questions or concerns?	93	2	5
Was the Teacher Questionnaire(s) administered online?	71	25	4
<i>If the Teacher Questionnaire(s) was administered online, did the teacher(s) encounter any problems?</i>	4	61	35 (Not Answered) 0 (Not Applicable)
Was the School Questionnaire administered online?	71	25	4
<i>If the School Questionnaire was administered online, did the person completing it encounter any problems?</i>	4	60	36 (Not Answered) 0 (Not Applicable)
Was the Early Learning Survey administered online?	35	56	9
<i>If the Early Learning Survey was administered online, do you know of any problems that parents/guardians encountered?</i>	4	24	72 (Not Answered) 0 (Not Applicable)
Do you anticipate that a makeup session will be required at your school?	13	86	1
<i>If yes, do you intend to conduct one?</i>	11	1	3 (Not Answered) 85 (Not Applicable)
Did the students receive any special instructions, motivational talk, or incentives to prepare them for the assessment?	68	31	1
Did you provide the list of classes in the tested grade to the national center?	85	13	1
If there was another international assessment, would you be willing to serve as a School Coordinator?	87	11	2

Exhibit 7.23: Interview with the School Coordinator, Details – paperTIMSS Eighth Grade – 322 Records (Percentage of School Coordinator Responses)

Question	Yes (%)	No (%)	Not Answered or Not Applicable (%)
Prior to the testing day, did you have time to check the shipment of materials from the national center?	76	23	1
Did you receive the correct shipment of the materials as listed in your <i>School Coordinator Manual</i> and according to the tracking forms?	91	8	1
<i>If no, did the national center provide the missing materials in time for the testing?</i>	1	7	93 (Not Answered) 0 (Not Applicable)
Was the national center responsive to your questions or concerns?	97	2	1
Was the Teacher Questionnaire(s) administered online?	21	77	2
<i>If the Teacher Questionnaire(s) was administered online, did the teacher(s) encounter any problems?</i>	3	17	80 (Not Answered) 0 (Not Applicable)
Was the School Questionnaire administered online?	19	78	3
<i>If the School Questionnaire was administered online, did the person completing it encounter any problems?</i>	1	18	81 (Not Answered) 0 (Not Applicable)
Do you anticipate that a makeup session will be required at your school?	12	88	3
<i>If yes, do you intend to conduct one?</i>	8	3	87 (Not Answered) 0 (Not Applicable)
Did the students receive any special instructions, motivational talk, or incentives to prepare them for the assessment?	71	29	0
Did you provide the list of classes in the tested grade to the national center?	86	14	0
If there was another international assessment, would you be willing to serve as a School Coordinator?	94	6	0

Exhibit 7.24: Interview with the School Coordinator, Details – eTIMSS Eighth Grade – 383 Records (Percentage of School Coordinator Responses)

Question	Yes (%)	No (%)	Not Answered or Not Applicable (%)
Prior to the testing day, did you have time to check the shipment of materials from the national center?	83	11	6
Did you receive the correct shipment of the materials as listed in your <i>School Coordinator Manual</i> and according to the tracking forms?	89	8	3
<i>If no, did the national center provide the missing materials in time for the testing?</i>	6	2	1 (Not Answered) 91 (Not Applicable)
Was the national center responsive to your questions or concerns?	94	2	4

Exhibit 7.24: Interview with the School Coordinator, Details – eTIMSS Eighth Grade – 383 Records (Percentage of School Coordinator Responses) (continued)

Question	Yes (%)	No (%)	Not Answered or Not Applicable (%)
Was the Teacher Questionnaire(s) administered online?	81	15	4
<i>If the Teacher Questionnaire(s) was administered online, did the teacher(s) encounter any problems?</i>	7	69	1 (Not Answered) 23 (Not Applicable)
Was the School Questionnaire administered online?	81	15	3
<i>If the School Questionnaire was administered online, did the person completing it encounter any problems?</i>	4	72	1 (Not Answered) 23 (Not Applicable)
Do you anticipate that a makeup session will be required at your school?	12	87	1
<i>If yes, do you intend to conduct one?</i>	10	2	84 (Not Answered) 4 (Not Applicable)
Did the students receive any special instructions, motivational talk, or incentives to prepare them for the assessment?	74	25	2
Did you provide the list of classes in the tested grade to the national center?	77	22	1
If there was another international assessment, would you be willing to serve as a School Coordinator?	87	12	1

There were large but expected differences between schools that administered paperTIMSS and eTIMSS regarding the administration of online Teacher Questionnaires, School Questionnaires, and Early Learning Surveys. The School Questionnaire, for example, was administered online by 19 percent of schools for both the fourth grade and eighth grade in paperTIMSS countries. In comparison, the percentage of eTIMSS countries who administered this questionnaire online was 71 percent for fourth grade and 82 percent for eighth grade classes. Most of the issues reported regarding the use of online questionnaires concerned login information that was received close to the testing day.

In a large number of the visited schools, School Coordinators indicated that students were given special instructions, motivational talks, or incentives by a school official or the classroom teacher prior to testing. This ranged from 61 percent (fourth grade paperTIMSS) to 74 percent (eighth grade eTIMSS).

From 8 to 13 percent of School Coordinators anticipated needing a makeup session and most intended to conduct one.

Because the sampling of classes requires a complete list of all classes in the school at the target grade, IQCMs were also asked to verify that all classes were included in the sampling process. School Coordinators were asked how many classes of the tested grade are in the school, how many were selected to participate, and whether he/she provided the list of classes to the national center. More than 77 percent of School Coordinators confirmed that they sent a complete list of classes to the national center. Most

of the remaining School Coordinators reported that centralized databases from Ministries of Education were used instead of class lists.

As a reflection of the successful planning and implementation of TIMSS 2019, 95 percent of fourth grade paper TIMSS respondents, 87 percent of fourth grade eTIMSS respondents, 94 percent of eighth grade paper TIMSS respondents and 87 percent of eighth grade eTIMSS respondents said that they would be willing to serve as a School Coordinator in future international assessments.