

APPENDIX E

Results of the Quality Assurance Monitors' Interviews with the National Research Coordinators

Each quality control monitor visited the TIMSS national center in their country to interview the National Research Coordinator (NRC) about aspects of their data collection activities. The interview data which follows is based upon interviews conducted with 43 NRCs.

A. Sampling

A.1. Were you able to select a sample of schools and students within the schools using the Survey Operations Manual and Sampling Manual provided by the TIMSS Study Center?

		Number of NRCs			
		Yes	No	Not Applicable	No Response
a.	Population 1	24	1	16	2
b.	Population 2	35	5	1	2
c.	Population 3: Generalist	19	4	16	4
d.	Population 3: Math Specialist	17	2	19	5
e.	Population 3: Physics Specialist	18	2	18	5

A.2. If the answer to any of the above is no, please ask the NRC to explain.

Eight NRCs provided explanations for not using the procedures in the Survey Operations Manual and Sampling Manual.

		Number of Comments
a.	Selection was performed by person/group other than NRC (external authority)	2
b.	National circumstances necessitated a change in sampling procedures.....	2
c.	All schools were included in the sample.....	2
d.	Accurate class lists were not available.	2

A.3. Did you use the Sampling and Operations software provided by the TIMSS Study Center to select classes or students?

Number of NRCs		
Yes	No	No Response
17	25	1

A.4. If yes, was it helpful?

Thirteen of the 17 NRCs who used the software said the Sampling and Operations software provided by the TIMSS Study Center was helpful. Of the 17 NRCs who used the software, 9 provided comments. These comments are tabulated below.

		Number of Comments
a.	Some problems with software were noted	7
b.	Software systematized the procedure	1
c.	Only for sampling students and teachers and not for sampling classes	1
d.	Not much because sampling procedures for these countries were quite simple	1

A.5. If no, why not?

Twenty four NRCs provided explanations for not using the TIMSS software. These are tabulated below. Note that some NRCs provided more than one comment. Five NRCs reported that problems with the TIMSS software resulted in their selection or development of alternatives.

		Number of Comments
a.	Used other software already in place.....	10
b.	Software provided by TIMSS presented problems.....	12
c.	Sampling was conducted manually.....	3
d.	Sampling out of NRC control.....	2

A.6. Were there any conditions or organizational constraints that necessitated deviations from the basic TIMSS sampling design?

		Number of Comments			
		Yes	No	Not Applicable	No Response
a.	Population 1	3	23	15	2
b.	Population 2	10	31	-	2
c.	Population 3: Generalist	8	14	17	4
d.	Population 3: Math Specialist	4	14	20	5
e.	Population 3: Physics Specialist	6	4	18	5

A.7. If the answer to any of the above was yes, please ask the NRC to explain.

Sixteen NRCs gave explanations. These explanations mostly referred to Population 2 and Population 3. The explanations tended to highlight national, regional or school level features. The reasons given were diverse, reflecting the uniqueness of each education system.

		Number of Comments
a.	National education structure necessitated change.....	9
b.	School level organization such as student groups or curriculum structures necessitated change	5
c.	Sampling was conducted to avoid clashes with existing studies or programs.....	1
d.	Sampling was conducted in accordance to directions given by external authority.....	1

A.8. In terms of the complexity of the procedures and number of personnel needed, how would you describe the process of sample selection?

A total of eight NRCs identified at least one population as being very difficult to sample.

		Number of NRCs		
		Population 1	Population 2	Population 3
a.	very difficult.....	2	5	3
b.	somewhat difficult.....	10	17	11
c.	not difficult at all.....	14	19	12
d.	not applicable.....	-	2	-
		n =26	n = 43	n =26

A.9. If very difficult, please ask the NRC to explain.

Fifteen NRCs made comments on the process of sample selection. This included 7 NRCs who had not identified the sampling process as being very difficult. One NRC who had responded that the process of sample selection was "not difficult at all" mentioned that the procedures were not difficult, but there were major difficulties with the practical application of the procedures. The explanations given included the complexity and size of the country's education system, inadequate resources and the lack of student lists.

		Number of Comments
a.	Difficulties in obtaining sample (lack of class lists, need to sample a sub-population)	8
b.	Computer difficulties related to either software or hardware.....	4
c.	Inadequate resources for the study (either staffing or financial)	4
d.	Communication problems between NCR and regional or school system including teachers and principals unwilling to cooperate, curriculum pressures.....	3

B. Working With the School Coordinators

B.1. Have all the School Coordinators for your sample been contacted?

Number of NRCs		
Yes	No	No Response
38	4	1

B.2. If yes, have you sent them materials about the testing procedures?

Number of NRCs		
Yes	No	No Response
31	11	1

B.3. If the answer to B.1 and or B.2 is no, please ask the NRC to explain when, how, and where the School Coordinators will be contacted and how they will learn about their responsibilities.

Fourteen NRCs offered comments.

Number of Comments	
a. Materials will be sent or are in the process of being sent.....	7
b. Testing is being conducted by another agency (for example, students at a university, regional staff, head teachers)	6
c. School coordinators are members of the national center staff.....	2
d. NRC staff to contact school coordinators by telephone.....	2

B.4. Did you have formal training sessions for the School Coordinators?

Number of NRCs		
Yes	No	No Response
21	22	-

With the exception of a single no-response, all NRCs reported making changes to the TIMSS documents. Of these, eight NRCs made only cultural adaptations, the international versions of the instruments were prepared in English.

C. Translating the Documents

C.1. How difficult was it to translate and/or adapt the test booklets?

Number of NRCs	
a. very difficult.....	3
b. somewhat difficult.....	25
c. not difficult at all.....	14
d. no response	1
n = 43	

C.2. Did you go use your own staff or outside experts to translate the test booklets?

Number of NRCs	
a. used own staff.....	10
b. used outside experts.....	7
c. used a combination.....	24
d. N/A (no translation or adaptation).....	1
e. no response	1

C.3. Did you go through the process of submitting your test booklets and receiving a Translation Verification Report from the Study Center?

Two of the eight NRCs whose education system used English did not select a response category.

Number of NRCs		
Yes	No	No Response
33	8	2

C.4. If no, please ask the NRC to explain.

Eight NRCs gave explanations for not submitting a Translation Verification Report. In each case the test had to be translated and adapted to the local school system. The usual reason for not submitting the Translation Verification Report was lack of time.

Number of Comments	
a. Time constraints.....	6
b. Process done by a different agency.....	1
c. Booklets were sent to printers prior to receipt of TVR.....	1
d. Yet to receive TVR.....	1

C.5. How difficult was it to adapt the questionnaires?

Number of NRCs	
a. very difficult.....	10
b. somewhat difficult.....	23
c. not difficult at all.....	10
n = 43	

C.6. If very difficult, please ask the NRC to explain.

Fourteen NRCs offered comments explaining their difficulty in translating and adapting the questionnaires. Four NRCs who indicated that the process was “somewhat difficult” also offered comments.

The main difficulty NRCs reported centered upon the disparity between the educational context of the country and that assumed by TIMSS. The difficulties tended to relate to school- and teacher-level features rather than to the student questionnaires. For example, “the student questionnaires are not difficult at all to adapt, but teacher and school questionnaires are very difficult.”

		Number of Comments
a.	Questions did not match country’s educational system	8
b.	Questions were unclear.....	2
c.	Questionnaires were too long	1
d.	Questionnaires were badly designed.....	1
e.	Questions were not applicable.....	1
f.	Terminology caused problems	1

C.7. How difficult was it to adapt the Test Administrator Manual?

		Number of NRCs
a.	very difficult.....	3
b.	somewhat difficult.....	11
c.	not difficult at all.....	26
d.	no response	3
		n= 43

C.8. If very difficult, please ask the NRC to explain.

Although only 3 NRCs indicated that it was very difficult to adapt the Test Administrator Manual, an additional 11 NRCs offered comments upon the adaptation process. Most NRCs who commented upon the content and length of the Test Administrator Manual stated that a simplified, more concise version was developed for their particular context.

		Number of Comments
a.	Manual was too long.....	8
b.	Manual was overloaded, too detailed, manual was simplified.....	8
c.	Combined the TA and SC manual.....	2

C.9. How difficult was it to adapt the *School Coordinator Manual*?

		Number of NRCs
a.	very difficult.....	4
b.	somewhat difficult.....	8
c.	not difficult at all.....	24
d.	no response	7
		n = 43

C.10. If very difficult, please ask the NRC to explain.

Three of the four NRCs who responded that the *School Coordinator Manual* was difficult to adapt offered explanations. In addition, two other NRCs commented upon the adaptation task.

		Number of Comments
a.	Manual was inappropriate, had to abbreviated.....	2
b.	The TA and SC manuals were combined.....	2
c.	Manual was not adaptable to this country's school system	1

C.11. Did you translate or do you plan to translate the *Coding Guides for Free Response Items*?

Number of NRCs		
Yes	No	No Response
19	24	-

D. Assembling and Printing the Test Materials

D.1. Were you able to assemble the test booklets according to the instructions provided by the Study Center?

		Number of NRCs		
		Yes	No	No Response
a.	Population 1	24	2	4
b.	Population 2	40	1	2
c.	Population 3	24	-	8

D.2. If no, please ask the NRC to explain.

Three NRCs gave explanations for not assembling the test booklet according to the instructions provided by the Study Center. These explanations were:

(a) For Population 1, the item numbering system was changed to avoid confusion. (Comment made twice).

(b) Instead of one booklet per pupil at Population 3, two separate test booklets were constructed, one for before the break and one after the break.

D.3. How difficult was it to assemble the test booklets?

		Number of NRCs
a.	very difficult.....	2
b.	somewhat difficult.....	11
c.	not difficult at all.....	30
		n = 43

D.4. If very difficult, please ask the NRC to explain.

In addition to the two NRCs who identified the test booklet assembly as “very difficult”, five other NRCs offered comments. The NRCs who reported the task to be “very difficult” commented that it was very time consuming, they had insufficient personnel, and the graphics and labels were difficult to lay out.

		Number of Comments
a.	Too little time.....	5
b.	Lack of personnel.....	3
c.	Graphics and labeling were difficult.....	1

D.5. Did you conduct the quality assurance procedures for checking the test booklets during the printing process?

Number of NRCs		
Yes	No	No Response
35	7	1

D.6. If no, please ask the NRC to explain.

Eight NRCs offered explanations for not conducting quality assurance procedures.

Number of Comments	
a. Test booklets checked by the printers.....	2
b. Printing process not yet completed.....	2
c. Not checked due to shortage of time.....	1
d. NRC trusted the quality of the printers.....	1
e. Shortage of staff due to budget limitations.....	1
f. This will be done before packing the materials.....	1

D.7. Were any errors detected during the printing process?

Number of NRCs		
Yes	No	No Response
19	22	2

D.8. If yes, what was the nature of the error?

Number of NRCs			
	Yes	No	No Response
a. print quality.....	12	5	2
b. pages missing.....	8	9	2
c. page order.....	6	10	3
d. upside down pages.....	-	15	4

D.9. Did you follow procedures to protect the security of the tests during the assembly and printing process?

Number of NRCs		
Yes	No	No Response
38	4	1

D.10. If no, please ask the NRC to explain.

Four NRCs gave explanations.

- a. NRC did not feel the need for special security measures.....
- b. Booklets were printed by external printers.....
- c. Booklets were printed internally
- d. The procedures were deemed too expensive to follow.....

Number of Comments
1
1
1
1
Total = 4

D.11. Did you discover any potential breaches of security?

Number of NRCs		
Yes	No	No Response
1	42	-

D.12. If yes, please explain and include whatever steps were taken to remedy the problem.

There was no comment offered by the NRC who reported a potential break of security.

D.13. Did you print the testing materials in-house or did you use an external printer? (check one for each)

- a. Test Booklets.....
- b. Questionnaires.....
- c. Manuals (TA, SC, Coding).....

	Number of NRCs		
	In-House	External	In-House & External
a.	10	29	4
b.	12	24	7
c.	26	12	5

E. Packing, Shipping, and Returning the Testing Materials

E.1. On what date did you or do you plan to begin testing?

	Number of NRCs
No date specified	2
February, 1995.....	8
March, 1995.....	10
April, 1995.....	7
May, 1995.....	13
July, 1995.....	2
October, 1995.....	1

The modal date was May, 1995

E.2. In packaging the assessment materials for shipment to schools, did you detect any errors in any of the following items?

		Number of NRCs			
		No Errors or Not Used	Errors Found Before Dist.	Errors Found After Dist.	No Response
a.	Supply of test books	30	2	1	8
b.	Supply of student questionnaires	27	4	2	8
c.	Student Tracking Forms	30	2	1	8
d.	Teacher Tracking Forms	28	2	-	11
e.	Student-Teacher Linkage Forms	27	-	-	14
f.	Test Administrator Manual	30	1	-	10
g.	School Coordinator Manual	27	2	-	12
h.	Supply of Teacher ..Questionnaires.....	26	3	1	11
i.	School Questionnaire	31	2	1	7
j.	Test book ID labels	30	2	-	9
k.	Sequencing of books or questionnaires	30	1	2	8
l.	Return labels	29	-	1	11
m.	Self-addressed post-cards for test dates	27	-	-	14

E.3. Did concerns about confidentiality restrict your freedom to put student names on the booklet covers?

Number of NRCs		
Yes	No	No Response
18	20	3

E.4. Do you plan to or have you already established a procedure requiring schools to confirm receipt of the testing materials and verification of the contents?

Number of NRCs		
Yes	No	No Response
21	12	8

E.5. What date have you specified as the deadline for the return of materials from the schools?

No date specified
 March, 1995.....
 April, 1995.....
 May, 1995.....
 June, 1995.....
 July, 1995.....
 December, 1995.....

Number of NRCs
14
7
1
8
11
1
1

The modal date was June, 1995

F. Coding Free-Response Questions

F.1. Who will primarily be coding your free-response questions?

Number of NRCs	
a. own staff	7
b. teachers.....	7
c. university students	5
d. combination of the above.....	24
n = 43	

F.2. How many coders do you plan to use for the coding of the free-response questions?

Number of NRCs	
1 to 10	17
11 to 20	14
21 to 30	3
31 to 40	4
41 to 50	4
51 or more	1
No Response	3

F.3. Have you selected your coders for the free-response questions?

Number of NRCs		
Yes	No	No Response
32	10	1

F.4. If yes, have you trained the coders?

Number of NRCs		
Yes	No	No Response
19	15	8

F.5. Have you scheduled the coding sessions for the free-response questions?

Number of NRCs		
Yes	No	No Response
32	10	1

F.6. By what date do you expect to have completed the coding?

	Number of NRCs
No date specified	1
April, 1995.....	2
May, 1995.....	5
June, 1995.....	12
July, 1995.....	11
August, 1995.....	5
September, 1995.....	1
October, 1995.....	2
November, 1995.....	2
December, 1995.....	2

The modal date was June, 1995.

F.7. Do you understand the procedure for coding the 10% reliability sample as explained in the *Guide to Checking, Coding, and Entering the TIMSS Data*?

Number of NRCs		
Yes	No	No Response
41	1	1

F.8. If no, please ask the NRC to explain.

The NRC who said “no” was yet to complete a study of the guide.

G. Data Entry and Transmittal

G.1. Do you plan to use your own staff or outside experts to enter the data from the achievement test booklets and questionnaires onto computer files?

		Number of NRCs
a.	own staff	13
b.	external data entry firm.....	9
c.	combination of the above	21
		n = 43

G.2. Have you selected the data entry staff?

NRCs		
Yes	No	No Response
25	17	1

G.3. If yes, have you conducted training sessions for the data entry staff?

Number of NRCs		
Yes	No	No Response
22	10	9

G.4. Do you plan to key enter a percentage of test booklets twice as a verification procedure?

Number of NRCs		
Yes	No	No Response
28	14	1

G.5. If yes, what percentage?

	Number of NRCs
No percentage specified	12
1 to 2 percent	2
3 to 5 percent	5
6 to 10 percent	12
11 to 15 percent	-
16 to 20 percent	-
21 to 25 percent	1
26 to 30 percent	-
31 percent or more	8

G.6. When do you plan to transmit the data to the IEA Data Processing Center in Hamburg, Germany?

	Number of NRCs
No date specified	2
May, 1995.....	3
June, 1995.....	3
July, 1995.....	7
August, 1995.....	13
September, 1995	8
October, 1995.....	1
November, 1995.....	1
December, 1995.....	3
February, 1996.....	1

The modal date was August, 1995

G.7. Have you established a secure storage area for the returned tests after coding and until the original documents can be discarded?

Number of NRCs		
Yes	No	Missing
39	4	-

H. Quality Assurance Sample

H.1. Have you selected your 10% quality assurance sample for your on-site classroom observations?

Number of NRCs		
Yes	No	No Response
20	23	-

H.2. If no, by what date do you plan to have this completed?

	Number of NRCs
No date specified	35
February, 1995.....	1
March, 1995	1
April, 1995	2
May, 1995	2
June, 1995.....	1
October, 1995.....	1

The modal date was May, 1995.

H.3. Who will do the Quality Assurance Classroom observations?

	Number of NRCs
a. an external agency	4
b. members of the NRC's staff	15
c. a combination of the above	8
d. other	5
e. no response	11
	Total = 43

I. The NRC Report

I.1. Approximately by what date do you plan to send your NRC report to the TIMSS Study Center and the IEA Data Processing Center?

	Number of NRCs
No date specified	5
May, 1995	1
June, 1995	2
July, 1995.....	8
August, 1995	7
September, 1995	13
October, 1995.....	3
December, 1995.....	2
January, 1996.....	1
February, 1996.....	1

The modal date was September, 1995

I.2. Ask the NRC if he or she would like to comment on any aspect of the study, his or her role in it, problems that could have been avoided, etc.

Thirty four NRCs offered comments. These comments tended to focus upon difficulties experienced in the study.

	Number of Comments
a. NRC expressed satisfaction with the study.....	4
b. Project was too demanding.....	6
c. There was a lack of resources (financial and staff)	6
d. Lack of government support.....	3
e. There was a need to reduce the demands on schools.....	5
f. Translation and adaptation of TIMSS material required more time.....	4
g. Manuals were too long, repetitive, and/or complex.....	4
h. Questionnaires asked the wrong or were confusing.....	4
i. Questionnaires were too long, in particular the teacher questionnaire.....	3
j. Software problems were experienced.....	3

J. Collecting Materials From the NRC

J.1. As you discussed with the NRC in your pre-visit call, please request a copy of each of the following and indicate if it was obtained. Explain that you need the manuals and tracking forms (a-d) to assist in your school visits. Also, these documents as well as the test materials (e-i) and questionnaires (j-r) will be sent to the TIMSS Study Center to have on file as a possible reference source during the analysis process.

		Number of NRCs		
		Yes	No	No Response
a.	Test Administrator Manual	31	1	7
b.	School Coordinator Manual	26	1	9
c.	Student Tracking Forms for each class selected for observation.....	25	4	10
d.	Class Tracking Forms for each school selected for observation.....	22	4	14
e.	Population 1 Test booklets (8).....	23	-	10
f.	Population 2 Test booklets (8).....	34	-	9
g.	Population 3 Test booklets (up to 9).....	18	3	9
h.	Population 1 Performance Assessment Tasks (12).....	8	5	11
i.	Population 2 Performance Assessment Tasks (12).....	17	5	11
j.	Population 1 School Questionnaire.....	23	-	11
k.	Population 2 School Questionnaire.....	35	-	8
l.	Population 3 School Questionnaire.....	18	3	9
m.	Population 1 Student Questionnaire.....	25	-	10
n.	Population 2 Student Questionnaire.....	35	-	8
o.	Population 3 Student Questionnaire.....	18	3	9
p.	Population 1 Teacher Questionnaire.....	23	-	10
q.	Population 2 Teacher Questionnaires (2).....	34	-	10
r.	Translation Verification Report (obtain this from the NRC only if you did not receive a copy at the QA training session or from the Study Center)	24	4	12