AMPL DATA MANAGEMENT MANUAL

Assessment of Minimum Proficiency Level (AMPL)

V1.0 February 2023

The Global Education Monitoring (GEM) Centre drives improvements in learning by supporting the monitoring of educational outcomes worldwide. The GEM Centre is a long-term partnership between the Australian Council for Educational Research (ACER) and the Australian Government's Department of Foreign Affairs and Trade (DFAT).

This manual is applicable to ACER Maple version 2.16 or higher.

Acknowledgments

Table of Contents

About this manual

This data management manual will explain in detail all data management procedures for the *Assessment of Minimum Proficiency Levels (AMPL)*.

Chapter 1 is an introductory chapter. In this chapter the data management tasks for the AMPL are outlined, the roles of different data management staff are defined, and the terminology used in this manual is explained.

Chapter 2 gives a short overview of the data management software ACER Maple and describes its installation, initialisation, and user settings. The main ACER Maple functions available to AMPL users are also outlined in this chapter.

Chapter 3 details all the documentation that is necessary for data management.

Chapter4 explains how to prepare for data administrator training.

Chapter 5 first provides instructions on checking and importing List of Classes and List of Students data into ACER Maple to be sampled for assessment[1].

When these data is imported, ACER Maple performs some checks of the data and if discrepancies are found produces the *Import Field Data Validity Report*. The second part of chapter 5 explains how to resolve these discrepancies.

Chapter 6 provides instructions on how to undertake class and student sampling in ACER Maple.

Chapter 7 provides instructions on how to populate tracking form templates with data from ACER Maple. The tracking form Excel templates that are despatched with ACER Maple are used for this process. Any discrepancies that may be produced in the *Export Field Data Validity Report* are also explained.

Chapter 8 provides instructions on labelling and packaging materials.

Chapter 9 Explain procedures related to the receipt of materials after the assessment:

- First it provides instructions on how to check the materials received from Test Administrators
- Then it explains how to check and import updated tracking form data into ACER Maple, and the errors and warnings that may be listed in the *Update Field Data Validity Report*.
- Finally it describes how to update the School Participation Form and what to do with the *Update Institution Participation Validity Report* which may be generated if there are discrepancies in the school participation data.

Chapter 10 explains how to organise data entry of responses after the assessment and provides instructions for data entry operators that can be used for their training.

Chapter 11 is the data submission chapter. It describes the tasks for explaining any discrepancies remaining in data and then submitting the data to ACER for further processing.

Appendix 1 contains checklists that have to be filled when data is ready to be submitted to ACER.

Appendix 2 contains troubleshooting advice.

Appendix 3 contains procedures for 'blind' sampling.

Appendix 4 contains an index of tables.

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[1] In this manual, *student* refers to a learner or a pupil to be assessed and *class* refers to a grouping of students in the same grade level, taught by the same teacher.

Appendix 5 contains an index of figures.

This manual uses acronyms and technical terms. You can find the list of the most common acronyms at the end of this section. The terms are explained where they first used.

Throughout the manual important notes and warnings are indicated using the following formatting:

	This is an important note or an ACER Maple tip. Many of these notes are AMPL requirements.

	This is a warning. Information in these boxes is crucial for correct procedures and must be read and followed carefully.

	This is a Note to National Centres participating/not participating in certain options agreed upon with ACER.

In this manual, screenshots are used to illustrate examples of how the different ACER Maple features are used.

	Please note that although ACER Maple functionality in screenshots corresponds to version 2. 16 or higher, some details, like version number, user details, or template column names can be different from what you will see on your screen.

Acronyms used in this manual

ACER	Australian Council for Educational Research
AMPL	Assessment of Minimum Proficiency Level
AMPLa	AMPL design a is intended for the students from the end of lower primary school
AMPLb	AMPL design b is intended for the students from the end of upper primary school
AMPLab	AMPL design a+b is intended for the students from the end of upper primary school with the link to the students from the end of the lower primary school.
DMR	Data Management Resources are various Excel templates and Word documents that are necessary to complete data management tasks
DMTP	Data Management Training Package Part 1 contains a Power Point presentation and other materials related to the data management tasks to be completed by the National Centre before the assessment
LCL	List of Classes from which a class eligible to participate in the AMPL is sampled
LSS	List of Sampled Schools agreed between ACER and the National Centre and imported into ACER Maple by ACER
LST	List of Students from the sampled class. Only these students are eligible to participate in the AMPL.
MRWF	Main and Replacement Warning Form – one of the ACER Maple forms used to explain warnings produced when field data is imported or updated.
NC	National Centre

PC	Personal Computer running a Microsoft® Windows operating system (laptop or desktop)
QAS	Questionnaire Adaptation Spreadsheet agreed between the ACER and the NC
QSA	Questionnaire Structural Adaptation form agreed between the ACER and the NC and imported into ACER Maple by the ACER
SC	School Coordinator
SCL	Sampled Class form is filled with the details about sampled class
SEN	Special Education Needs
SALF	Student Assessment Labelling Form used to label student assessment instruments
SPF	School Participation Form used to register school participation status
SQTF	School Questionnaire Tracking Form used to label School Questionnaires and to record the receipt of the School Questionnaires
SCQ	School Questionnaire filled by school principals
STF	Student Tracking Form populated with sampling data from ACER Maple and used by Test Administrators to record student attendance and participation.
STQ	Student Questionnaire administered after the AMPL test
TA	Test Administrator
TCS	Target Cluster Size
VM	Virtual Machine Oracle VM VirtualBox software **version 6.1.42** (https://www.virtualbox.org/wiki/Download_Old_Builds_6_1)

1 INTRODUCTION TO DATA MANAGEMENT

1.1   Overview of data management tasks

> Data management with ACER Maple is a **<u>requirement</u>** for the AMPL.

Data management is a critical part of the AMPL data collection. It is preceded by school sampling, AMPL questionnaire adaptations, and preparation of all assessment instruments for printing. Once school sampling and all adaptations have been completed and all assessment instruments have been prepared for printing, the ACER data management team customises the data management software ACER Maple for your National Centre (NC).

When the ACER data management team complete customisation of ACER Maple for your NC, you will be notified by ACER that a version of ACER Maple pre-configured for your NC has been uploaded to designated website. ACER will also explain how to download ACER Maple from designated website and will provide you with temporary login details to log into ACER Maple for the first time.

> Please make sure that **well before** you start on any other data management tasks. the *List of Sampled Schools* (LSS) and the *Questionnaire Structural Adaptations* (QSA) have been agreed between your NC and ACER; and you are familiar with the content of these files (see section 2.4 for details).

The entire data management process involves the following major tasks performed at the NC:

Before the assessment

1. Installation and initialisation of ACER Maple (chapter 2).
2. Checking documentation and training test administrators (chapters 3 and 4).
3. Checking and importing data for sampling (chapter 5).
4. Class and student sampling (chapter 6).
5. Populating tracking form templates with data from ACER Maple (chapter 7).
6. Labelling assessment instruments (chapter 8).

After the assessment

7. Updating data from tracking forms in ACER Maple (chapter 9).
8. Organising data entry and entering response data (chapter 10).
9. Data submission to ACER and data cleaning participation (chapter 11).

The sequence of data management tasks is illustrated in Figure 1. This figure shows which tasks are performed before the assessment and which are performed after the assessment. It also shows that

different tasks are performed by different personnel: data manager, data administrators and data entry operators. Their roles are defined in section 1.3.
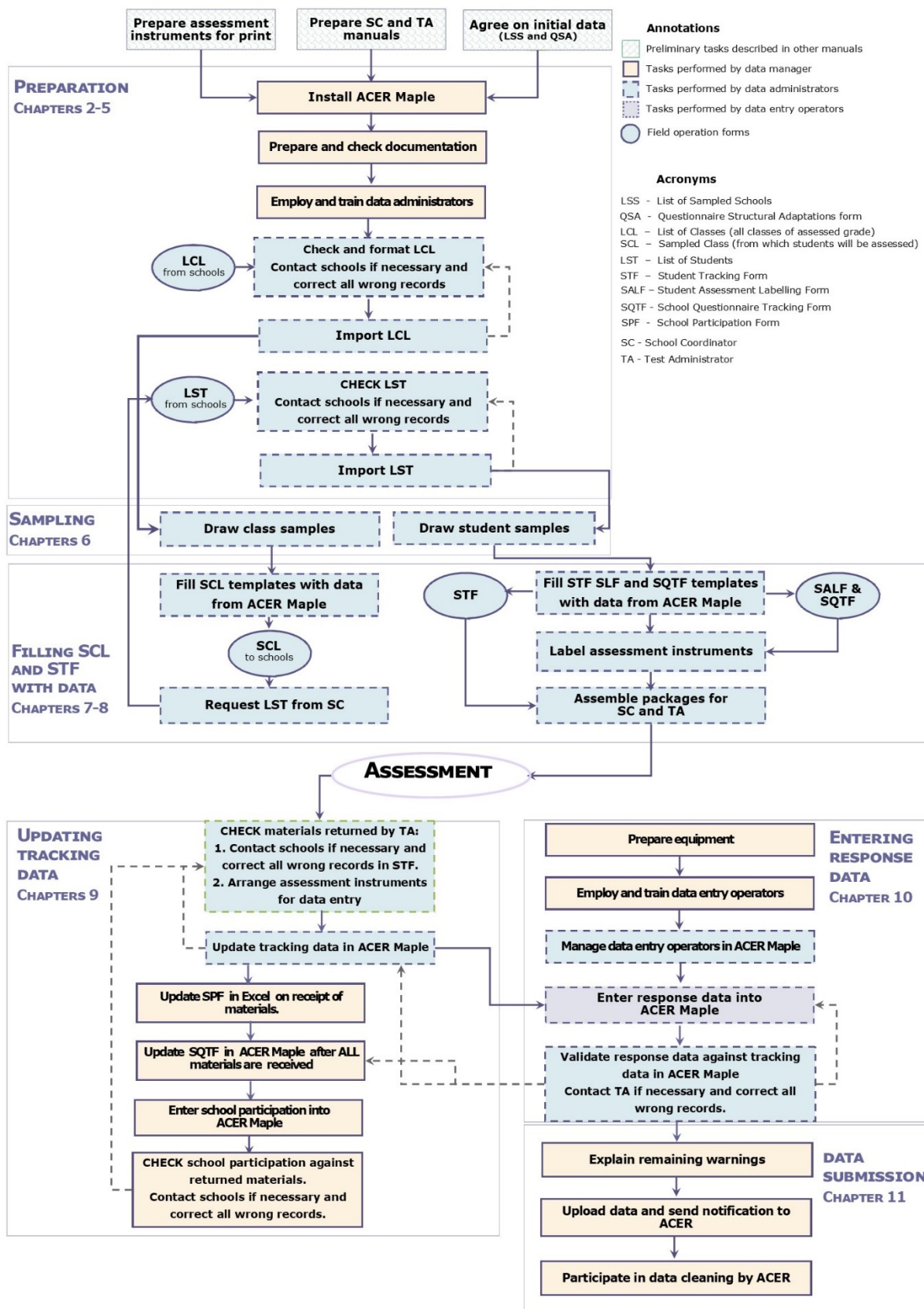

Figure 1: Data management tasks for the AMPL

All tasks illustrated by Figure 1 are first outlined in this chapter and then explained in detail in the subsequent chapters of this manual.

Before the assessment:

A) Make sure that:

- you have enough workstations for data administrators;
- the PC on which you intend to install ACER Maple (called the *host* PC) satisfy all system requirements (section 2.2);
- check the PC set-up (section 2.3);

ACER Maple should then be downloaded from designated website, installed and initialised (sections 2.5 -2.9).

B) After you download and initialise ACER Maple you need to prepare and check all materials necessary for student sampling and data entry. These are:

- initial data:
- templates for field operation forms such as List of Classes (LCL), List of Students (LST) and Student Tracking Forms (STF); and
- the data entry screens for the AMPL assessment instruments such as tests and questionnaires.

Chapter 3 explains how to prepare and check necessary materials.

C) After ACER Maple has been installed on a host PC, and all materials have been prepared and checked, the data manager can train data administrators (chapter 4).

D) After data administrators have been trained, they will start checking class lists received from schools and formatting them into LCL files, then importing the LCL data into ACER Maple (sections 5.2 and 5.4).

E) After data from the LCL have been successfully imported into the ACER Maple database, class sampling is undertaken, which results in the one class being sampled (chapter 6) and SCL form populated with the sampled class data (chapter 7).

F) The SC must be contacted and asked for the student lists from the sampled class. Data administrators will check and format the student lists received from schools into the LST files, then import the LST data into ACER Maple (sections 5.3 and 5.4).

D&F validation) Each time the data is imported into ACER Maple, the software will check the imported data for inconsistencies. Detected inconsistencies will be listed in the *Import Field Data Validity Report*. Some of these inconsistencies may be errors that must be corrected before student sampling can proceed, while others may be warnings of missing data that can be completed later by Test Administrators on the tracking forms (section 5.5).

> ⚠️ Data will only be transferred into the ACER Maple database when all errors have been corrected.

G) After data from the LST have been successfully imported into the ACER Maple database, student sampling is undertaken in order to produce tracking forms with student identification and instrument allocation designated to each student (chapter 6).

H) After students are sampled, the data from ACER Maple is used to fill:

- the STF Excel template (chapter 7) and
- the SALF and SQTF templates used to label assessment instruments (chapter 8).

STFs that have been pre-populated with data from ACER Maple are then sent to the SC to be checked and updated before the assessment. Once finalised, the STF is then sent, together with other materials, to the TA to be used during the assessment.

After the assessment:

A) The materials received from Test Administrators are checked, further updated (if necessary) and prepared for processing in ACER Maple (chapter 9). This involves:

- Checking all student assessment instruments (test booklets and questionnaires) against the STF and arranging assessment instruments for data entry (section 9.1).

- Updating student demographic data (if corrected by the TA/SC) and participation data in ACER Maple, from the returned STF checked against student assessment instruments. This is usually done school by school. Errors that appear in the *Update Field Data Validity Report* must then be corrected in the data. Records that classified as warnings and found to be true do not need to be corrected (see details in sections 9.2, 9.4, and 9.5).

- Maintaining the School Questionnaire Tracking Form (SQTF) on receipt of the School Questionnaire. The SQTF is also updated by the data administrator in ACER Maple after all materials are returned and all student tracking data has been updated. Errors that appear in the *Update Field Data Validity Report* must then be corrected in the data. Records that classified as warnings and found to be true do not need to be corrected (sections 9.3 and 9.5).

- Maintaining the school participation status for each school during field operations. The School Participation Form (SPF) is updated by the data manager in ACER Maple after all student tracking data and the SQTF have been updated. Errors that appear in the *Update Institution Participation Validity Report* must then be corrected in the data. Records that classified as warnings and found to be true must be explained (sections 9.6 and 9.7).

B) While students are being assessed, office space and PCs for data entry operators must be prepared, and data entry operators should be employed and trained (section 10.1).

C) When most of the materials have been received, checked, and prepared, data entry of responses can commence (section 10.2).

D) After data entry is completed, it must be validated in ACER Maple against the updated tracking data. Errors that appear in the *Respondent Validity Report* must then be corrected in the data. Warnings found to be true must be explained (sections 10.3 and 10.4).

E) After all data has been checked, corrected, and warnings have been explained (where necessary), the data is submitted to ACER. The data manager then works with a member of ACER data management team to verify the data further (chapter 11).

1.2   Terminology

This section provides definitions for terms that are used throughout the manual that have not been explained in previous sections.

1.2.1   Domain (Survey ID, Entity ID and Admin ID)

Due to the secure nature of the AMPL data, each member of the NC data management team will only be able to access part of the AMPL database. The part of the database to which an ACER Maple user has access is called the *domain*.

Domain is defined combination of *Survey ID*, *Entity ID* and *Admin ID*.

Survey ID for the AMPL is defined as **033**.

Entity ID is a 6-digit string based on your country 3-digit ISO code and year level assessed (see Table 1). One NC can have one or more entities depending on how many grade levels they are assessing in how many languages. This will allow countries assessing more than one grade level to have more than one data manager (one data manager for each grade level and for each language of assessment).

Table 1:Entity IDs for countries participating in the AMPL

Country	Grade	Test design	Entity ID	Language
India	3	a	035631	ENG
	5	b	035651	ENG
	5	b	035652	HIN
Kenya	6	ab	040460	ENG
Lesotho	4	ab	042640	ENG
	7	ab	042670	ENG
Zambia	4	a	089440	ENG
	7	ab	089470	ENG

Admin ID is an administrative set of schools within each entity. The Admin ID values are assigned in the *List of Sampled Schools* (LSS). Each set of schools is assigned a different two-digit Admin ID value (starting from '01') within each entity as required. This is done to allow several data administrators to work simultaneously each one administering data for the set of schools within a particular Admin ID.

> In addition to the Admin ID values assigned in LSS, a special value of Admin ID='00' is used by the data manager for operations related to all schools in the entity. This value is not used in LSS.

1.2.2   Templates and related terms

An *Excel template* is an Excel file that has been formatted in a particular way. ACER Maple uses two types of Excel templates:

1. **Input template** is an Excel file intended to be populated with data by users and imported into ACER Maple, for example:

   ▸ LSS and QSA templates: ACER populates these with initial data (in consultation with NCs) and imports them into ACER Maple before the software is despatched to NCs; or

   ▸ LCL and LST templates: The SC fills this spreadsheet with details, which are then imported into ACER Maple by the data manager for sampling.

2. **Output template** is an Excel file intended to be populated with data by ACER Maple as a result of sampling or validation. For example, STF templates are populated with sampling data by ACER Maple and later updated by Test Administrators.

An Excel template can have several worksheets. A worksheet containing sections that need to be filled with data is called a *data worksheet*. The section containing data is called a *data section*.

Field operation forms comprise LCL, LST, SCL, STF, SQTF, SALF and SPF.

An *ACER Maple template* is a software structure that corresponds to a data worksheet within an Excel template. It enables ACER Maple to either import data from a corresponding input template into ACER Maple, or to populate a corresponding output template with data from ACER Maple.

1.2.3   Discrepancies in validity reports

The various validity reports generated during the data management process list discrepancies found in the data by ACER Maple. Validity reports are generated whenever a user attempts to import data

from Excel, when students are sampled, or when a user attempts to export data to Excel. There are two types of discrepancies:

- *Errors* are incorrect records that must be corrected, for example, ID discrepancies.

- *Warnings* are inconsistent records that may be correct but must be double-checked and either corrected or explained.

Resolution of discrepancies involves correcting of all incorrect records and providing an explanation as to how any correct but inconsistent records have occurred, for any remaining warnings. Explanations are required by ACER as a part of the data submission task which is explained in detail in Chapter 11.

1.3   Data management staff employed by NCs

NCs are advised to employ the following staff:

- **One data manager per entity:** this is the person responsible for all data management operations in the *entity* (see section 1.2.1 on page 11 for definition of an entity), including class and student sampling. The data manager must be trained by ACER staff for data management procedures. One NC can have one or more entities depending on how many grade levels they are assessing in how many languages and as many data managers as there are entities[2].

- **Two to five data administrators per entity:** these staff members are trained by data managers and work under their instruction. Data administrators assist their data manager with operations designated on Figure 1, page 9 in blue boxes ( ). If necessary, the data manager can work as one of the data administrators[3].

- **Data entry operators:** up to ten data entry operators can work under the instruction of each data administrator. Data entry operators are employed for a short period of time to enter test and questionnaire responses into ACER Maple after assessment. Data entry operators must be trained by the data manager.

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[2] If there is one data manager in your NC and more than one entity, this data manager will need to login in ACER Maple with different login details for every grade level and language of assessment he /she is managing.

[3] If there are no data administrators in your NC, the data manager will still need to create an administrator login when initialising ACER Maple and use this login for various ACER Maple functions as instructed throughout this manual. However, this will slow down student sampling and reduce the number of data entry operators that can enter data simultaneously and delay the completion of data management tasks

2 ACER MAPLE

2.1   Overview of ACER Maple

The data management software ACER Maple is a tool that is used to complete the following data management tasks:

- Before the assessment ACER Maple is used to:

    1. import list of classes and sample a class of students to be assessed in each grade level agreed with ACER;

2. import list of students from the sampled class(es), sample students, and allocate survey instruments to the candidates;

3. populate preconfigured tracking form templates with sampling data from ACER Maple.

- After the assessment ACER Maple is used to:

1. import tracking data collected by Test Administrators into ACER Maple;

2. enter responses from paper-based instruments into ACER Maple;

3. validate response data against the tracking data; and

4. submit anonymised data to ACER for further processing and analysis.

ACER Maple is developed in R programming language and runs as a host-user system. The host is a PC that runs an R session that operates ACER Maple. Installation of R is provided in the ACER Maple package. ACER Maple has two databases: a confidential database that is available to the NCs and an anonymised database that is submitted to ACER for further processing.

This chapter describes the system requirements, installation steps, user settings and general navigation rules for ACER Maple.

> Throughout the manual, screenshots are used to illustrate various functions of the ACER Maple software. Some details, like version number, or user details, or column names in some templates on the screenshots may vary, but illustrated functions are the same as in the version you are going to use.

2.2 System requirements

2.2.1 ACER Maple on a virtual machine

For the AMPL survey, the preferred mode of deployment for ACER Maple is through a Linux-based virtual machine. Specialised software, VirtualBox, is installed on a dedicated host PC, which hosts the virtual machine. ACER Maple software is then loaded onto the virtual machine using a disk image. The dedicated host PC will always keep the virtual machine running, and users (single or multiple) can access ACER Maple from either the same host PC or separate PCs at any time using the IP address specified by ACER Maple, in a web-based browser. Using ACER Maple in this mode requires that:

- all user PCs and the host PC must be within the same LAN;

- the IP address and port of the host PC is fixed (permanent); and

- within the LAN, access to the host PC is not blocked by a firewall or network policy.

> You may need to ask your IT department to ensure that the LAN requirements described in this section, and the PC requirements described in sections 2.2.2 and 2.2.3, are met.

2.2.2 System requirements for the host PC

The host PC must have:

- Microsoft Windows 64-bit version;

- a standard installation of Microsoft Office (no earlier than Office 2013), since data is imported into and exported from ACER Maple in Excel format; and

- preferably Mozilla Firefox[4] browser; and

- Oracle VM VirtualBox software **version 6.1.42** downloaded from https://www.virtualbox.org/wiki/Download_Old_Builds_6_1.

- Recommended 80GB disk space (minimum 50GB) and 16GB of RAM (minimum 8GB) to download and install ACER Maple in VirtualBox software:

  ▸ Installation of VirtualBox software and disk image to install ACER Maple requires at least 23GB of disk space.

  ▸ Users will need additional hard disk space to be available for database backups.

  ▸ The ACER Maple VM (virtual machine) will utilise approximately half of the host PC's total RAM for optimum performance. For example, on a host PC with 16GB RAM, the VM will only utilise 8GB

> ⚠️ Make sure that the chosen browser is the default internet browser on the host PC and allows a user to specify where any downloaded files are to be saved.

2.2.3   System requirements for all user PCs

All user PCs (connected to the host PC via LAN) must have:

- Microsoft Windows 64-bit version;

- A standard installation of Microsoft Office no earlier than Office 2013. This is necessary because data is imported into ACER Maple from Excel and also exported from ACER Maple into Excel; and

- Preferably Mozilla Firefox internet browser.

> 📔 Google Chrome is also acceptable, but NO OTHER browser except Mozilla Firefox or Google Chrome is supported.

> ⚠️ Make sure that the chosen browser is the default internet browser on the user's PC and that the browser's default download location is disabled.

2.2.4   Security recommendations

The following security recommendations apply to all PCs within the LAN that will be used to access ACER Maple:

- all PC drives are encrypted using BitLocker or similar;

- the host PC firewall is deployed so that HTTP ports are accessible from other machines on the same network.

- the PC hosting the ACER Maple VM should be either:

  ▸ a dedicated server; or

  ▸ a desktop PC; or

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[4] Google Chrome is also acceptable, but no other browser is supported

> ▸ if it is a laptop, the firewall rule for exposing the HTTP ports must be specific to the LAN where the work is performed;

- all PCs have antivirus systems which are kept up to date;

- all PCs are subject to a patching schedule for the operating system and any other relevant software; and

- **ACER Maple is not accessible from outside the LAN**.

> Note that although Mozilla Firefox or Google Chrome internet <u>browser</u> is a requirement, an internet <u>connection</u> is NOT REQUIRED. In the case of data entry operators or data administrators, an internet <u>connection</u> is NOT RECOMMENDED for security reasons.

2.3   PC Setup

Before downloading ACER Maple, check that the system requirements are met on all PCs intended for the use of ACER Maple (see sections 2.2.2 and 2.2.3 for details). Once this has been confirmed, follow the instructions in this section to set up each of the PCs for ACER Maple.

2.3.1   Download and install VirtualBox software on a host PC

> ⚠ You may need to ask your IT department to download VirtualBox software on a host PC

To download Oracle VM VirtualBox software and install it on the host PC:

1. Navigate to the website https://www.virtualbox.org/wiki/Download_Old_Builds_6_1 in your internet browser (Figure 2).

Figure 2: VirtualBox website landing page

2. Click the **Download VirtualBox 6.1** button in the middle of the page (see Figure 2). You will be taken to the **Downloads** page.
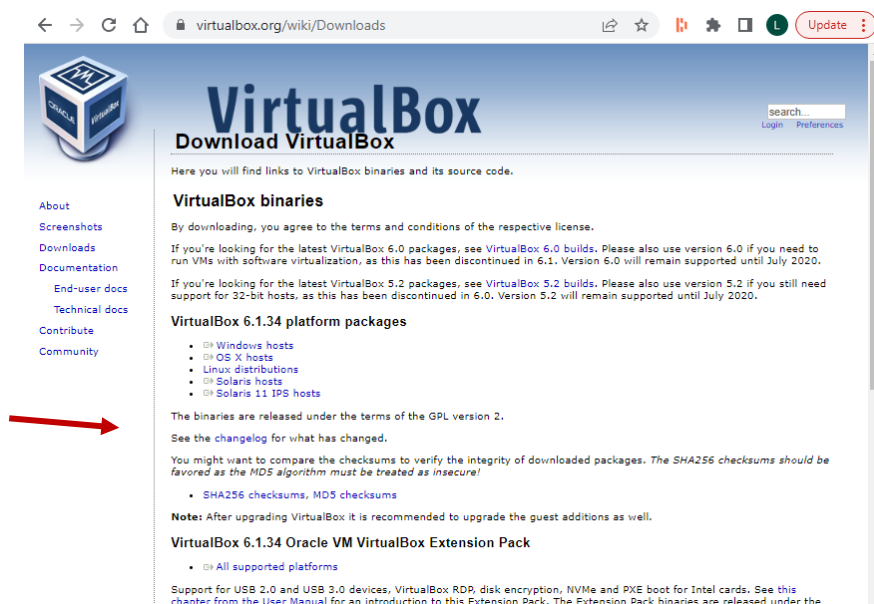
Figure 3: VirtualBox website Downloads page

3. Click on the *Windows hosts* option under **VirtualBox … platform packages** (Figure 3).

4. You will be prompted to download the software installer. Save it in an appropriate location then run it. The VirtualBox setup wizard will open (Figure 4). Click **Next** to start the setup process.
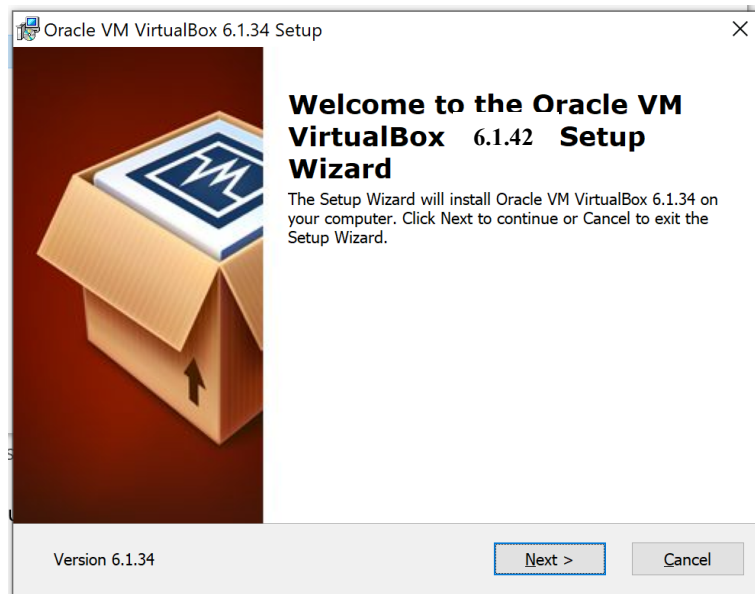
Figure 4: VirtualBox setup wizard screen 1

5. On the next two screens that appear, click **Next** and **Next** without changing any options (Figure 5).

Figure 5: VirtualBox setup wizard screens 2 and 3

6.   The third screen will display a warning that installing the VirtualBox Networking feature will reset your network connection and temporarily disconnect you from the network. Click **Yes** to proceed (Figure 6).

Figure 6: Networking feature warning

7.   Click **Install** on the *Ready to Install* screen that appears. (Figure 7)
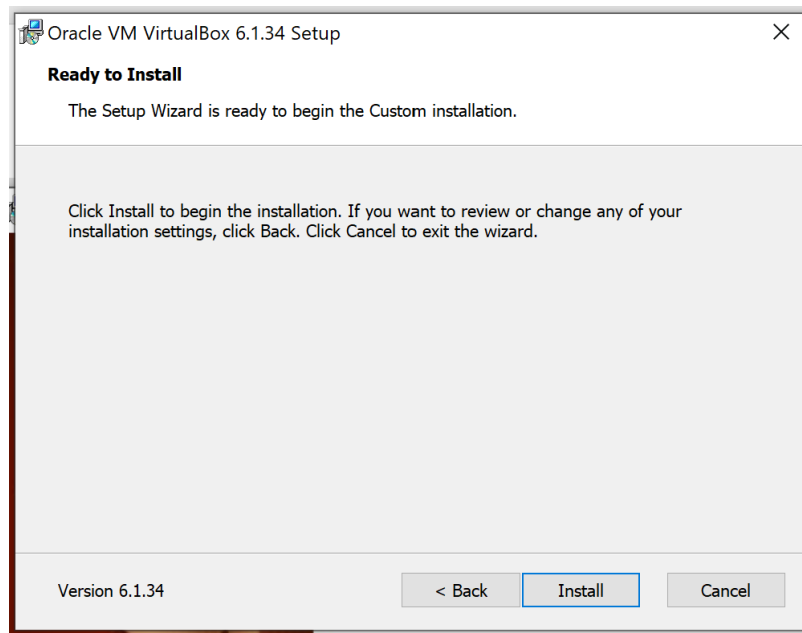
Figure 7: VirtualBox setup wizard screen 5

8. Once the installation is complete, click 'Finish' (Figure 8).

Figure 8: VirtualBox setup complete

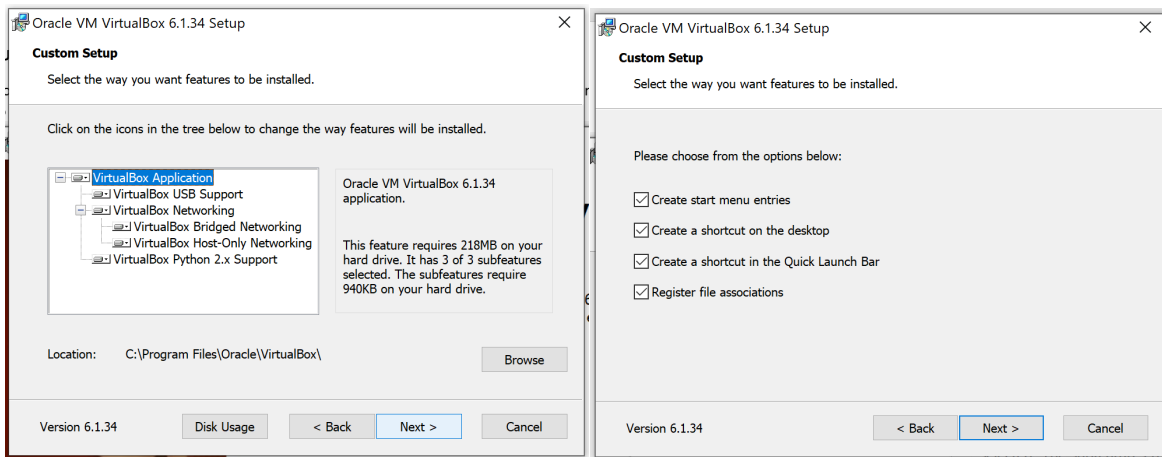## 2.3.2   *Defining your default browser*

Only **Google Chrome** or **Mozilla Firefox** can be used for ACER Maple.

To set **Mozilla Firefox** as your default browser:

1. Open Mozilla Firefox.

2. In the top right corner of the screen click [icon] .

3. Click **Options** in the middle of the list.

4. In the *General > Startup* section click **Make default**.

To set **Google Chrome** as your default browser:

1. Open Google Chrome.

2. In the top right corner of the screen click ⋮ .

3. Click **Settings** near the bottom of the list.

4. Scroll down to **Default browser**.

5. Click **Make default**.

2.3.3   Disabling browser default download location

To disable the default download location in **Mozilla Firefox**:

1. Open Mozilla Firefox.

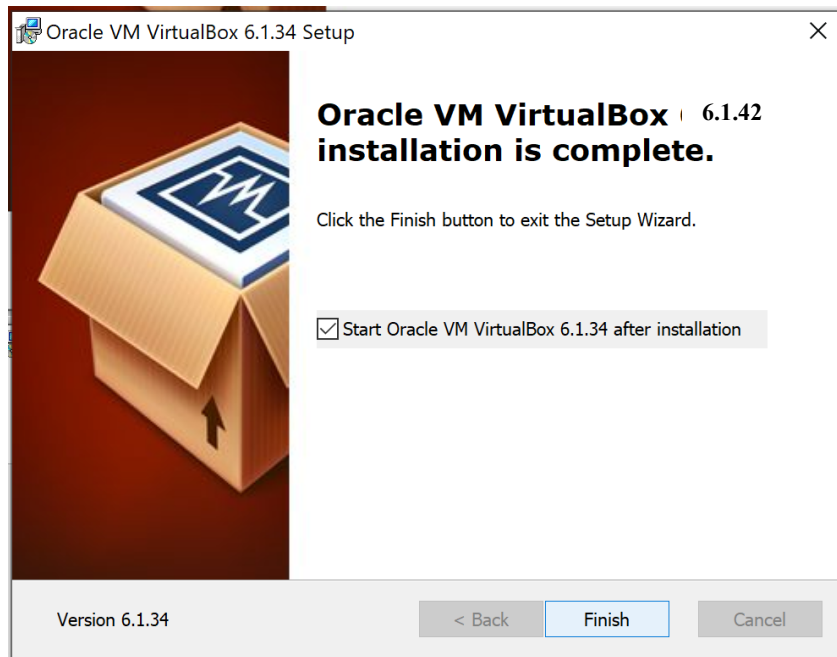2. In the top right corner of the screen click .

3. Click **Options** in the middle of the list.

4. Scroll down to the *Files and Applications > Downloads* section.

5. Select **Always ask you where to save files**.

To disable the default download location in **Google Chrome**:

1. Open Google Chrome.

2. In the top right corner of the screen click ⋮ .

3. Click **Settings** near the bottom of the list.

4. Scroll down to the bottom and click **Advanced**.

5. Scroll down to the *Downloads* section.

6. Click **Ask where to save each file before downloading**.

2.3.4   Checking display and resolution

1. In the Windows taskbar click **Start** ( ).

2. Click **Settings** ( ).

3. Click **System**.

4. On the *Display* page, in the *Scale and layout* section, ensure that the "…(Recommended)" options are selected under the **Change size of text, apps and other items** drop-down list, and the **Display resolution** drop-down list. Repeat this step for all monitors that are connected to your PC by selecting the corresponding numbered display listed at the top of the screen.

2.4   Initial data readiness

At the beginning of the sampling process, sampling tasks containing country-specific sampling information are agreed between your NC and ACER and uploaded onto ACER Teams. This process is finalised by agreement of the School Tracking Form. Excerpt from the School Tracking Form is imported into ACER Maple as a List of Sampled Schools (**LSS**).

At the same time, your Questionnaire Adaptation Spreadsheet (QAS) must be agreed with ACER. Excerpt from the QAS is imported into ACER Maple as a Questionnaire Structural Adaptations (**QSA**).

Please check the data in the agreed **LSS** and **QSA** carefully **before** any data is imported into ACER Maple:

- If you think that minor changes to the School Tracking Form are still required, the LSS can be re-negotiated by sending an e-mail to Clare Ozolins at Clare.Ozolins@acer.org.
- If you think that minor changes to the QSA are still required, the QAS can be re-negotiated by sending an e-mail to Jennifer Hong at Jennifer Hong@acer.org.

The data from LSS and QSA are imported into ACER Maple by the ACER data management team before a customised national version of ACER Maple for your NC is uploaded to ACER Teams.

> ACER Maple cannot be customised and despatched to the NC until the **School Tracking form** and **QAS** are agreed between your NC and ACER

> If the **School Tracking form** or **QAS** are **re-negotiated after LSS and QSA have been imported into ACER Maple** the re-negotiated file must be re-imported into ACER Maple by ACER.
>
> Please let Alla Routitsky at Alla.Routitsky@acer.org (cc to Maple Helpdesk maplehelpdesk@acer.org and Jennifer Hong@acer.org.) immediately if you start the process of re-negotiation after ACER Maple had been despatched.
>
> **Try to avoid this situation by carefully checking the LSS and QSA files beforehand.**

> If you have received and downloaded ACER Maple before realising the LSS or QSA needs to be changed:
>
> - wait for ACER to notify you that an updated version of the database can be downloaded;
> - download, and replace database as explained in [##]-.

2.5   Despatch

The ACER Maple software for the AMPL, and all related files, can be downloaded from the designated website nominated by ACER at the time of despatch.

ACER_MAPLE_AMPL_[CNT].ZIP[5] contains ACER Maple as well as a number of supplementary files organised into the following folders:

- **ACER_MAPLE_V<#>**[6]**:** contains the disk image file *ACERMapleVBox.ova.*
- **AMPL_DMR:** contains other <u>D</u>ata <u>M</u>anagement <u>R</u>esources such as templates for field operation forms and various checklists to help with data management processes.

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[5] CNT will be replaced with your 3-letter code as indicated in Table 2.

[6] <#> is a version number, e.g. 3.01

Table 2: 3-letter country codes [CNT] for countries participating in the AMPL survey

Country	3-letter country code [CNT]
India	QIN
Kenya	KEN
Lesotho	LSO
Zambia	ZMB

2.6   ACER Maple installation

Policies and procedures for the purpose of supporting local security and privacy legislation for individual ACER Maple deployments are **outside** the scope of this document.

To install ACER Maple:

1. Check that you are ready to use ACER Maple (section 2.6.1).

2. Decide on the mode of deployment (section 2.6.2).

3. Download **ACER_MAPLE_AMPL_[CNT].ZIP** file from designated website **(**the details will be sent to you by ACER once your customised version is ready).

4. Set up ACER Maple in the VM deployment configuration (section 2.6.3).

2.6.1   Initial checks before installation of ACER Maple

Before downloading ACER Maple, ensure that the system checks and PC setup tasks described in sections 2.2– 2.3 have been completed on all PCs to be used for ACER Maple.

You will not be able to use ACER Maple if the system requirements are not met.

ACER will notify your NC by email when your customised national version of ACER Maple is ready and has been uploaded to designated website. This email will also contain instructions for downloading ACER Maple from this site. Check with your NPM when this is scheduled.

ACER Maple cannot be customised until the data from LSS and QSA have been agreed and uploaded into ACER Maple by ACER.

Note to the India NC: In addition to the above, ACER Maple cannot be customised until Hindi assessment instruments are:

1. prepared for printing (but not printed);

2.   sent for final optical check to ACER;

3. agreed upon.

Hindi assessment instruments must be sent for final optical check at least two month before the start of the assessment and should not be printed untile final optical check is agreed upon.

2.6.2   Different modes of ACER Maple VM deployment

ACER Maple VM can be deployed either:

- for a single user for the purposes of accessing the system and data solely on one workstation. No other users or workstations are connected to the local area network (LAN) and the workstation is not connected to the internet while ACER Maple is running; or

- for multiple LAN users for the purposes of accessing the system using their workstations. One of the workstations will host the ACER Maple VM; or

- on a dedicated server which hosts the ACER Maple VM, which can be accessed from a single or multiple PCs within the same LAN.

In each of these settings, the ACER Maple VM is installed on a single host PC/server (laptop or desktop). A user (or users) within the same LAN can then connect to the ACER Maple VM using an internet browser. In this way, multiple users can access ACER Maple (at the same time, if necessary) to perform all required data management tasks, without needing the ACER Maple VM to be installed on every PC. ACER Maple can also be accessed by a user directly on the host PC. Network security and firewall rules should allow other PCs within the LAN to connect to the ACER Maple host PC.

A NC can have as many data administrators for each entity as there are values in the Admin ID column in the agreed LSS for this entity.

> If Admin ID is '01' for all schools in the LSS , contact Clare Ozolins at Clare.Ozolins@acer.org. Your LSS should then be re-negotiated and re-uploaded into ACER Maple by ACER to accommodate the number of data administrators you are employing.

2.6.3   Installation instructions

To install ACER Maple on a virtual machine:

1. Create a directory on the host PC named **C:\MapleFiles**. This will be a shared folder accessible by both the host PC and the VM.

2. Download the VM image shared by ACER (through designated website) to a convenient location. It may take a while to download depending on your internet connection.

> The VM image is a large file of around 5GB. After the image is unpacked by VirtualBox it will require around 20GB of storage space and 2GB of RAM allocated to the ACER Maple VM on the host PC.

3. Open Oracle VM VirtualBox software if it is not already open, either through the **Start** (⊞) menu or the icon on desktop (Figure 9).
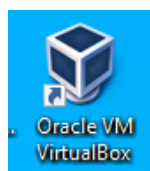
Figure 9: VirtualBox desktop icon

4. Click on **File > Import Appliance**, or the **Import** button (Figure 10).
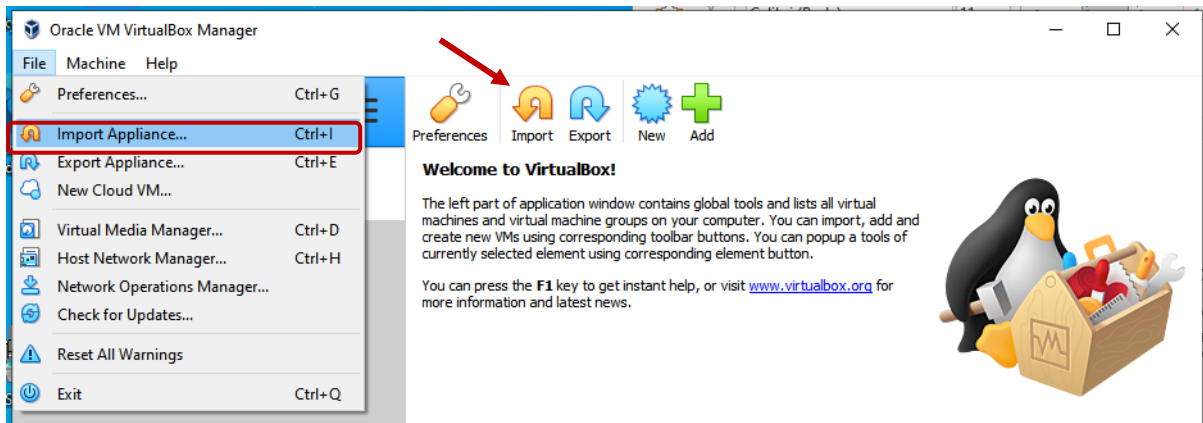
Figure 10: The Oracle VM VirtualBox Manager screen

5. Another window will appear asking you to choose the appliance to import (Figure 11). Under *Source* select **Local File System**.

6. Under *File* manually enter or navigate (using the button) to the location where the VM image shared by ACER was saved in step 2.
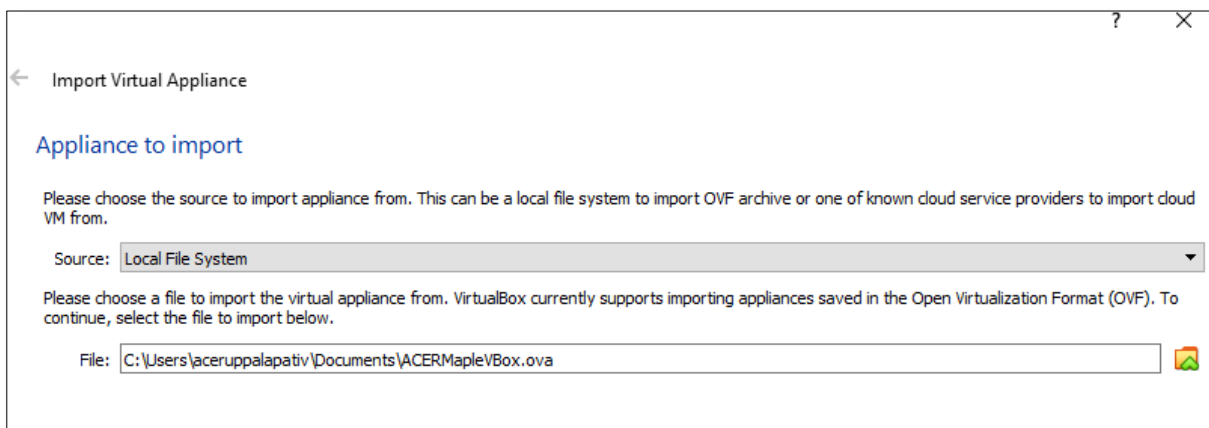
Figure 11: Select appliance to import screen

7. Click **Next**. A screen will appear specifying the appliance settings (Figure 12).
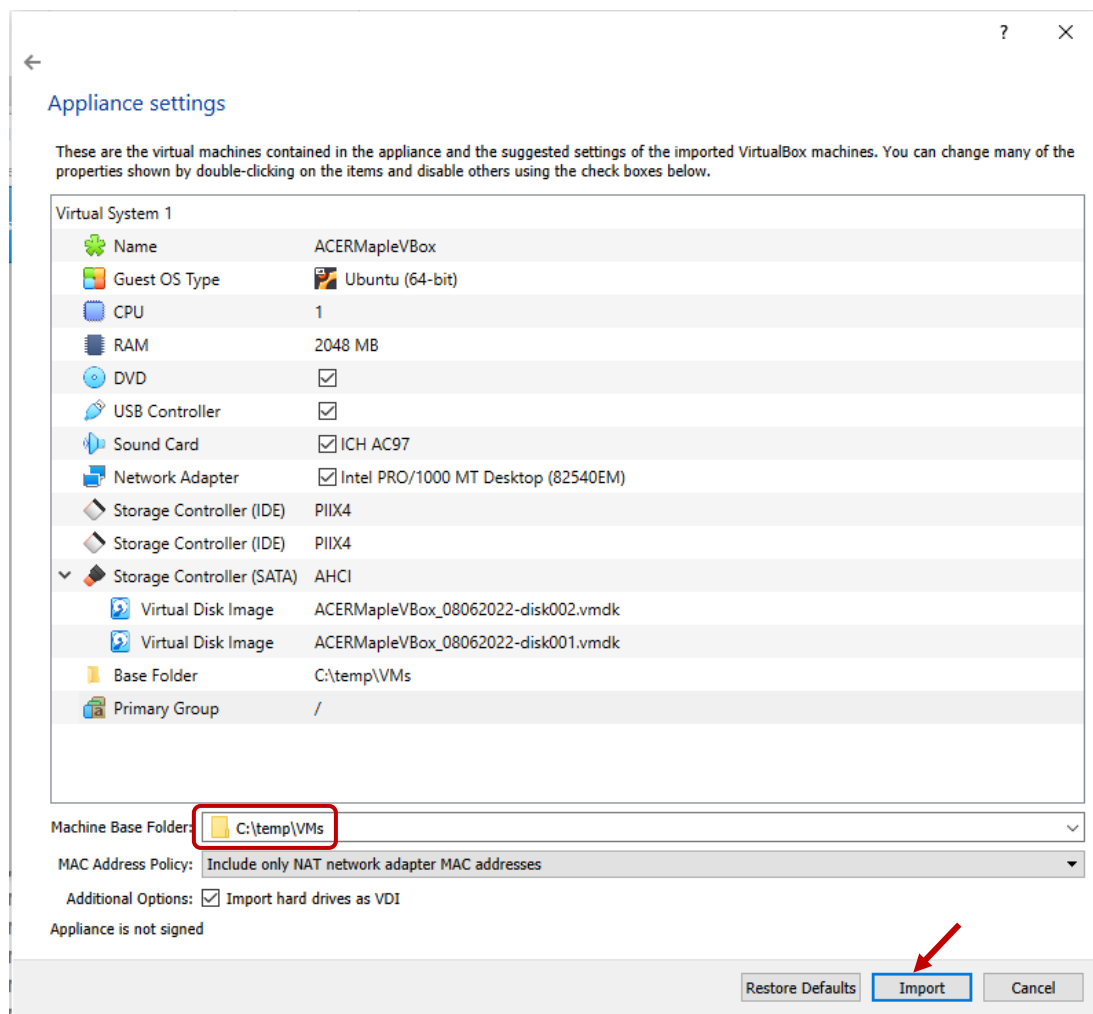
Figure 12: Appliance settings screen

8. In the Machine Base Folder field, specify an appropriate location for the VM base folder where the VM resides on the host PC (see Figure 12). Note it must be a different location to the C:\MapleFiles folder created in step 1. The folder will be created automatically if it does not already exist.

9. Click **Import**.

•   The ACERMapleVBox VM will be imported into the Oracle VM VirtualBox Manager environment (it may take a few minutes depending on your PC).

•   Note that an error will occur if the **C:\MapleFiles** directory was NOT created in step 1 (page 24). If this occurs, you will need to:

    ‣   click **OK** to dismiss the error message(Figure 13);
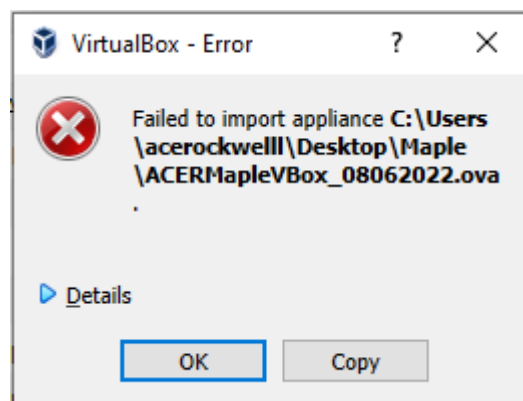
Figure 13: ACERMapleVBox VM import error

- ▸ create the missing directory, and

- ▸ delete anything in the VM base folder (i.e. C:\temp\VMs) before attempting to import the VM image again.

10. Once the import process is completed, the name of the VM will appear in the list of available virtual machines (Figure 14).
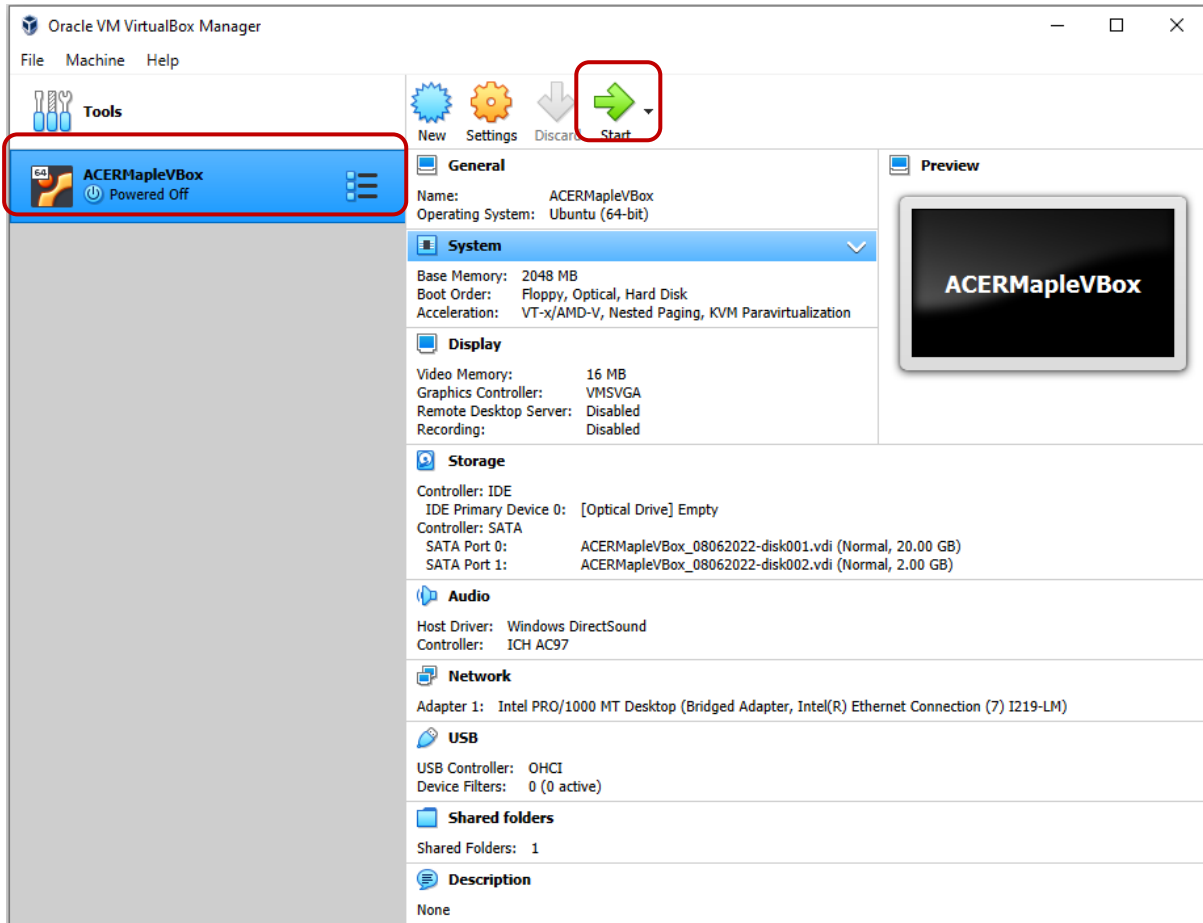
Figure 14: ACERMapleVBox VM loaded in VirtualBox

11. Click on the ACERMapleVBox machine on the left-hand side of the screen to select it and click **Start** (see Figure 14).

12. If initiating the ACERMapleVBox machine for the first time it will likely display an error message saying that the network adapter settings need to be changed (Figure 14)
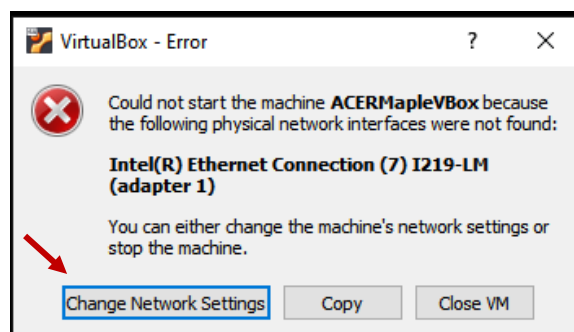
Figure 15: Network adapter settings error message

13. Click **Change Network Settings** (see Figure 15) to open the network settings screen (Figure 16).
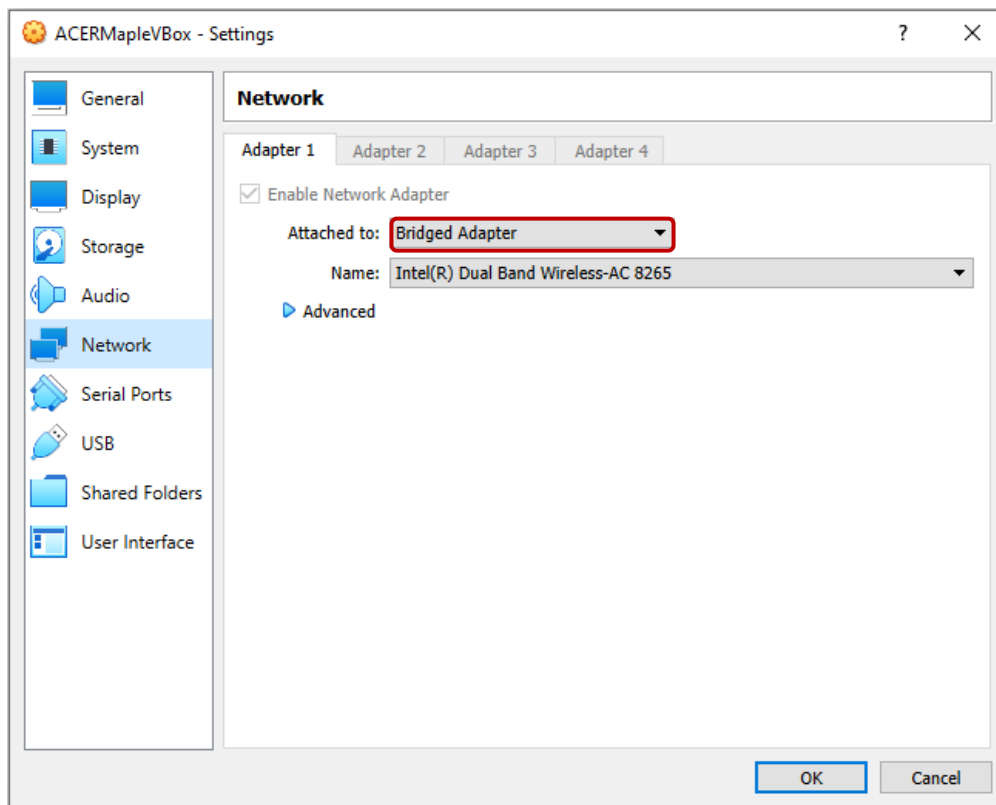
Figure 16: ACERMapleVBox VM network settings screen

14. Make sure that "Bridged Adapter" is selected (see Figure 16) then click **OK**.

15. Once the network adapter is configured properly a new window will appear displaying the Oracle VM VirtualBox loading screen followed by the Ubuntu loading screen (Figure 17).

Figure 17: Oracle VM VirtualBox and Ubuntu loading screens

16. Once the VM has finished loading the ACERMapleVBox VM login screen will appear (Figure 18). The ACERMapleVBox VM is running successfully. Dismiss any messages that appear at the top of the screen[7].

---

[7] If instead of UBUNTU screen a pop-up errors message appears saying "**Not in a hypervisor partition**", see section A2.1, Appendix 1 for instructions.
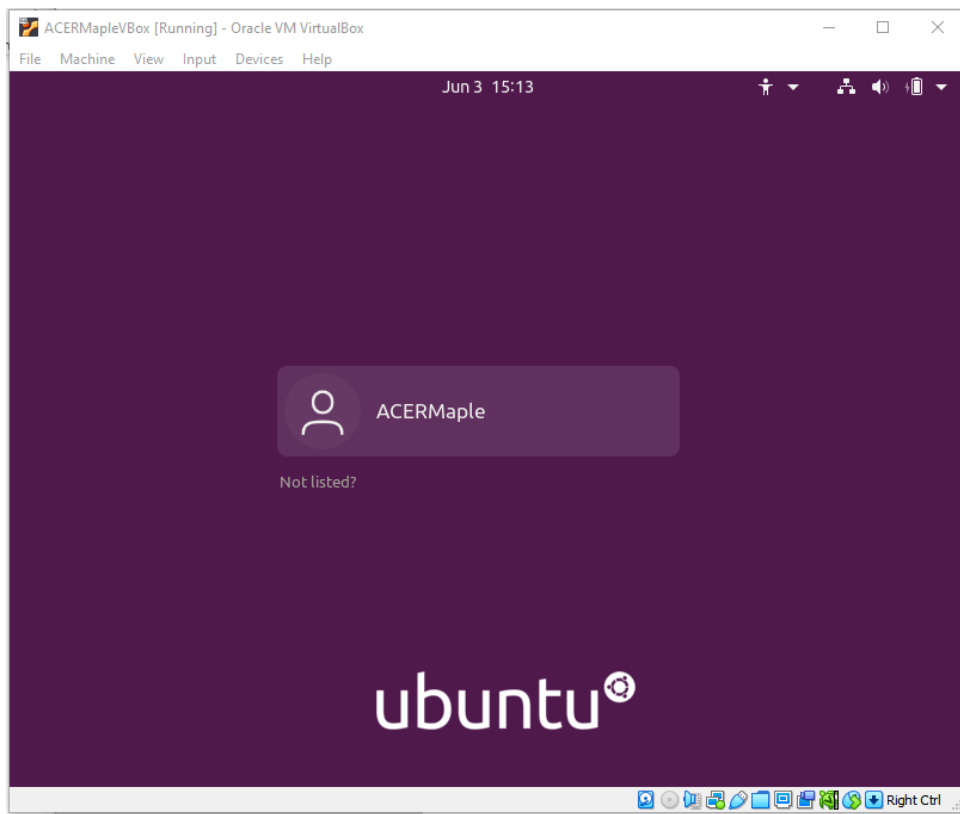
Figure 18: ACERMapleVBox VM login screen

> ⚠ The ACERMapleVBox VM login screen can be minimised but must remain open while ACER Maple is in use. **Closing this window will shut down ACER Maple and all unsaved work will be lost.**

17. The VM will be registered within your Local Area Network (LAN) in accordance with LAN policies, and it will obtain a local IP address. This IP will need to be used by all users to connect to the ACER Maple interface. Obtain the IP address of the VM by running the following commands in either **Command Prompt** or **Powershell** (both native Windows 10 applications) on the host PC:

- Using **Command Prompt** (CMD) on the host PC run below commands:

  set PATH=%PATH%;"C:\Program Files\Oracle\VirtualBox"

  VBoxManage guestproperty get "ACERMapleVBox" "/VirtualBox/GuestInfo/Net/0/V4/IP"

- Using **Powershell** on the host PC run below commands:

  $env:PATH = $env:PATH + ";C:\Program Files\Oracle\VirtualBox"

  VBoxManage guestproperty get "ACERMapleVBox" "/VirtualBox/GuestInfo/Net/0/V4/IP"

18. The IP address of the VM will be displayed in the Command Prompt/Powershell window (Figure 19)

Figure 19: ACERMapleVBox VM IP address displayed in Windows Powershell application

19. Enter the IP address into the address bar of a new internet browser tab (e.g. http://<IP>)[8].

> ⚠ The numeric value in Figure 19 is an <u>example</u>. The **value displayed on your machine** can be **different** and can change over time if LAN configuration had been changed (e.g. more PCs are added)

20. The first time a user connects to the IP address of the VM, a warning about the connection not being private (Figure 20) is displayed[9]. To dismiss the security certificate warning click **Advanced**.

Figure 20: VM security certificate warning

---

[8] If you are unable to reach the URL perform the following steps to check the network settings:

1. Right click on the VM in the Oracle VM VirtualBox Manager
2. Select Settings
3. Select Network
4. Ensure that **Enable Network Adapter** is selected, and **Bridged Adapter** is selected from the *Attached to* drop-down list (see Figure 16)

[9] The security warning is displayed because the ACER Maple VM is configured with a self-signed security certificate supplied by ACER. It is possible to replace the self-signed certificate supplied by ACER with your organisation's security certificate.

21. Click **Proceed** on the *Advanced* screen (see Figure 21).

Your connection is not private

Attackers might be trying to steal your information from **10.0.0.243** (for example, passwords, messages, or credit cards). Learn more

NET::ERR_CERT_AUTHORITY_INVALID

♡ To get Chrome's highest level of security, turn on enhanced protection

Hide advanced   Back to safety

This server could not prove that it is **10.0.0.243**; its security certificate is not trusted by your computer's operating system. This may be caused by a misconfiguration or an attacker intercepting your connection.

Proceed to 10.0.0.243 (unsafe)

Figure 21: VM security certificate warning advanced

22. The ACER Maple *Login* screen will be displayed (Figure 22).

ACER Maple version 2.16   ✖ Quit

Information

IP address of host: **10.0.0.213**

You are currently connected to ACER Maple over LAN

To access this application from another computer on your local area network, enter **10.0.0.213** into the URL bar in a web browser on that computer.

Warnings

No warnings.

Help

First time login

Forgot password
(For data manager)

If you are not a data manager, contact your data manager to reset your password

Other problems:
Send an email to maplehelpdesk@acer.org

Enter your domain below:

Survey ID   Entity ID   Admin ID

Enter Username

Enter Password

➡ Log in

Figure 22: ACER Maple Login screen

2.7 Access, exit and back-up

2.7.1 Starting ACER Maple VM on the host PC

To start up the ACER Maple VM on the host PC:

1. Open Oracle VM VirtualBox software if it is not already open, either through the **Start** (⊞) menu or the icon on desktop (Figure 23).
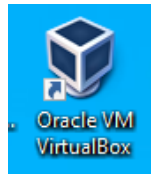
Figure 23: VirtualBox desktop icon

2. Click on the ACERMapleVBox machine on the left-hand side of the screen to select it and click **Start** (Figure 24).
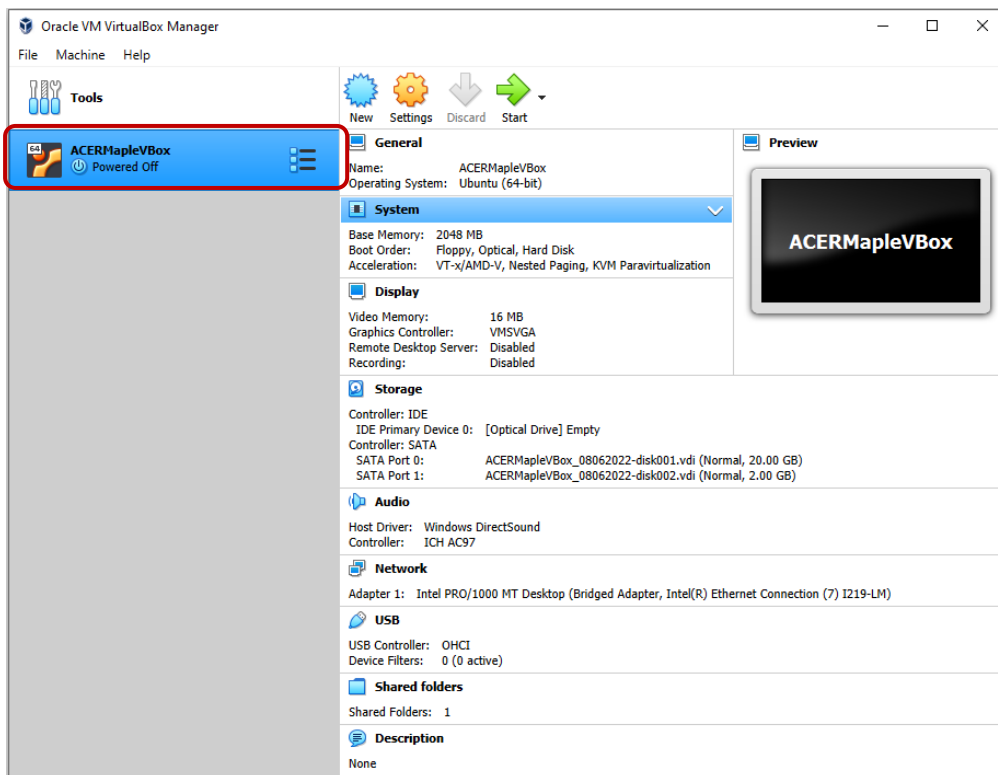
Figure 24: ACERMapleVBox VM loaded in VirtualBox

3. Once the VM has finished loading the ACERMapleVBox VM login screen will appear (Figure 25). The ACERMapleVBox VM is running successfully. Dismiss any messages that appear at the top of the screen.
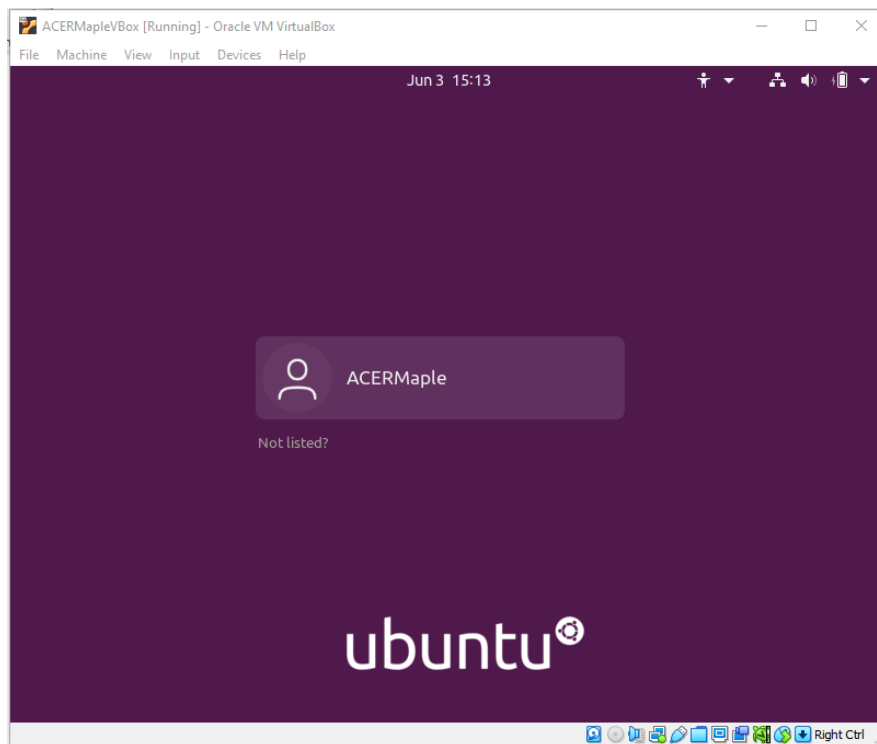
Figure 25: ACERMapleVBox VM login window

> ⚠ The ACERMapleVBox VM login screen can be minimised but must remain open while ACER Maple is in use. **Closing this window will shut down ACER Maple and all unsaved work will be lost.**

4. Obtain the IP address of the VM by running the following commands in either **Command Prompt** or **Powershell** (both native Windows 10 applications) on the host PC:

- Using **Command Prompt** (CMD) on the host PC run below commands:

   set PATH=%PATH%;"C:\Program Files\Oracle\VirtualBox"

   VBoxManage guestproperty get "ACERMapleVBox" "/VirtualBox/GuestInfo/Net/0/V4/IP"

- Using **Powershell** on the host PC run below commands:

   $env:PATH = $env:PATH + ";C:\Program Files\Oracle\VirtualBox"

   VBoxManage guestproperty get "ACERMapleVBox" "/VirtualBox/GuestInfo/Net/0/V4/IP"

5. The IP address of the VM will be displayed in the Command Prompt/Powershell window (Figure 19)

Figure 26: ACERMapleVBox VM IP address displayed in Windows Powershell application

> ⚠ The numeric value in Figure 26 is an <u>example</u>. The **value displayed on your machine** can be **different** and can change over time if LAN configuration had been changed (e.g. more PCs are added)

6. You can now access ACER Maple Login window on the host PC as well as on any other PC within the local area network

2.7.2   Accessing ACER Maple Login window

To access ACER Maple Login screen when the **ACER Maple webpage is closed**:

1. Ensure that the ACERMapleVBox VM login window UBUNTU (Figure 25) is open on the host PC.

2. Enter the IP address of the VM (from step 18 on page 29) in the address bar of a new **Mozilla Firefox** browser. The ACER Maple *Login* screen will appear (Figure 27).

    This can be done either on the host PC or any other PC within the same LAN as the host PC.

Figure 27: The ACER Maple *Login* screen

To access ACER Maple session when the **ACER Maple webpage is greyed out** indicating that session has been timed out:

1. Ensure that the ACERMapleVBox VM login window UBUNTU (Figure 25) is open on the host PC.

2. Refresh the browser (see section 2.9.4, page 48 for details).

2.7.3   Information section on the left-hand side of the Login screen

The information section on the left-hand side of the login screen (Figure 27) contains three important messages related to ACER Maple access from any PC on the same LAN as the host PC:

IP address of host: <IP>.This is the IP address of the ACER Maple VM. Data managers must make it available to data administrators.

> ⓘ The numeric value in Figure 27 is an <u>example</u>. The **value displayed on your machine** can be **different** and can change over time if LAN configuration had been changed (e.g. more PCs are added)

You are currently connected to ACER Maple over LAN. This message is displayed on all PCs accessing the ACER Maple VM, including the PC hosting the VM, even if the host PC is a stand-alone PC.

To access this application… This message repeats the IP address of the host PC within the LAN with instructions on how to access ACER Maple from any PC within the LAN.

2.7.4   Closing a connection to an active ACER Maple session and creating a back-up

To close a <u>connection</u> to an active ACER Maple session:

1. Click the **Quit** button at the top right of the page. A message will appear asking if you are sure you want to quit.

2. Click **Confirm**. A second message will appear asking if you want to create a database backup (Figure 28).
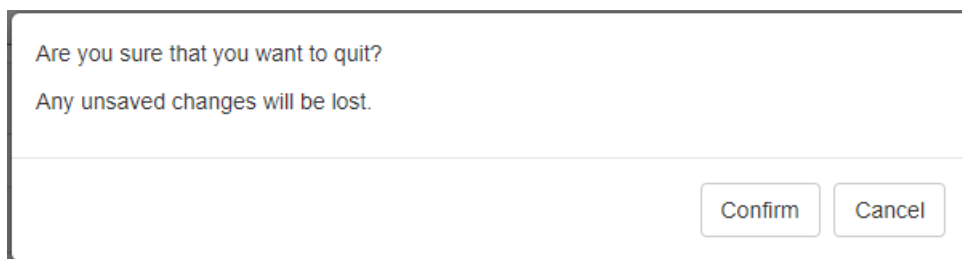
Figure 28 Quit confirmation prompt

3. Click **Yes** (Figure 31**)**. The background of the page used to quit the session will become grey.
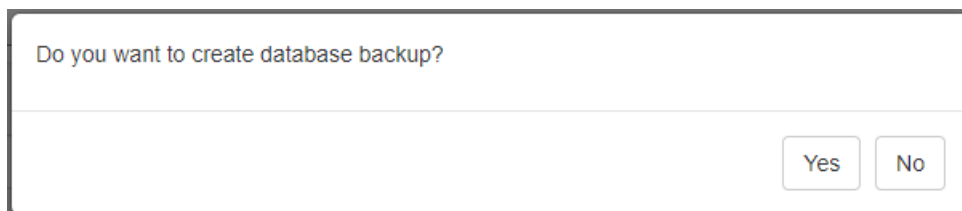
Figure 29 Database backup prompt

> 📖 It is recommended that that backups are created from every PC **at least twice a day**. For example, when a user is leaving station for lunch and at the end of the working day.
>
> Please note that these backups are created within the VM infrastructure on the host PC and overwrite the previous updates.
>
> It is recommended as an important risk management procedure that, while ACER Maple is being actively used, **database backups are exported from the ACER Maple VM** to the local hard dive of the host PC **at least twice a day** (see section 2.7.7, page 37 for details).

2.7.5   Closing ACER Maple on a host PC

> ⚠️ The numeric value in Figure 27 is an <u>example</u>. The **value displayed on your machine** can be **different** and can change over time if LAN configuration had been changed (e.g. more PCs are added)

To close ACER Maple on a host PC:

1. Click the **Quit** button at the top right of the page. A message will appear asking if you are sure you want to quit.

2. Click **Confirm**. A second message will appear asking if you want to create a database backup (Figure 30).

Are you sure that you want to quit?

Any unsaved changes will be lost.

Confirm   Cancel
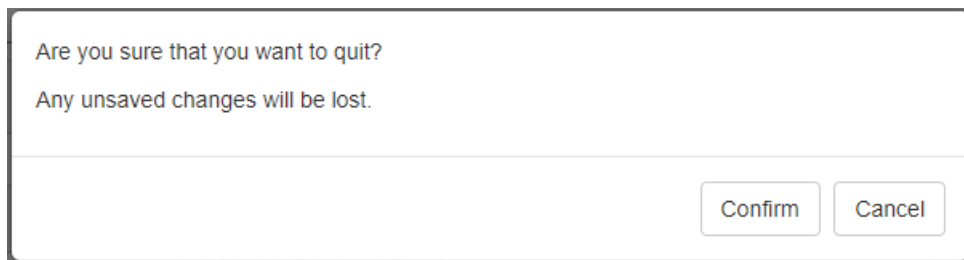
Figure 30 Quit confirmation prompt

3. Click **Yes** (Figure 31**)**. The background of the page used to quit the session will become grey.

Do you want to create database backup?

Yes   No
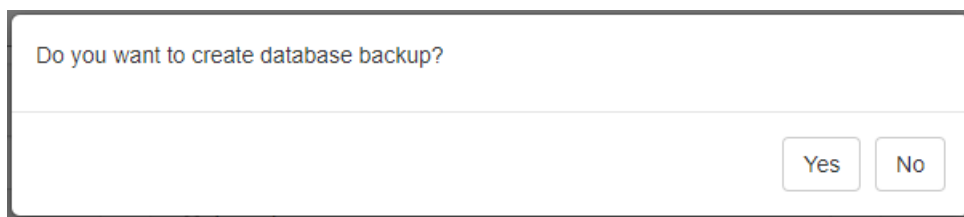
Figure 31 Database backup prompt

4. Export current database backup as explained in section 2.7.7 on page 37.

> 📕 It is recommended as an important risk management procedure that, while ACER Maple is being actively used, **database backups are exported from the ACER Maple VM** to the local hard dive of the host PC **at least twice a day** (see section 2.7.7, page 37 for details).

5. DO NOT shut down ACER Maple VM (UBUNTU) UNLESS ALL USERS connected to the acer maple interface HAVE LOGGED OUT.
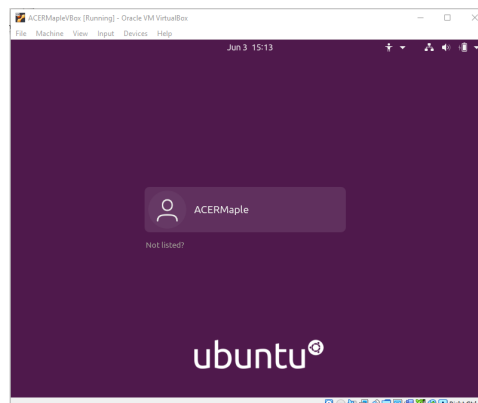
2.7.6 Closing ACERMapleVM on a host PC

The ACERMapleVM can be shut down <u>ONLY IF</u> ALL USERS CONNECTED TO THE ACER MAPLE DATABASE HAVE LOGGED OUT.

> ⚠ Before powering off the ACER Maple VM, make sure that all users connected to the ACER Maple interface have logged out. **Powering down the VM without logging out all users can corrupt the ACER Maple database which may result in significant data loss.**

After you made sure that all users connected to the ACER Maple interface have logged out, the ACER Maple VM can be shut down as follows:

1.   Close the ACER MapleVBox VM login window (Figure 25, page 33), then

2.   Select **Power off the machine** on the *Close Virtual Machine* window (Figure 32).
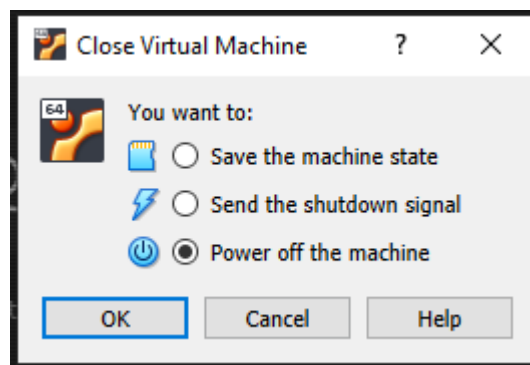
Figure 32: Close Virtual Machine window

2.7.7 Exporting ACER Maple database backup for archiving/storage

> 📕 The following procedure is recommended to be performed **at least twice a day** as an important part of risk management. The exact timing of when the database backups should be exported will depend on your working environment and personal preferences and/or organisational practices

To export ACER Maple database backup to the host computer for archiving/storage:

1.   Generate a backup from within the ACER Maple software interface by following the instructions in section 2.7.5 on page 36.

2.   Navigate to the **C:\MapleFiles** directory that was created when the VM was installed (section 2.6.3 step 1 on page 24) and manually create a new folder called 'backup' (Figure 33).
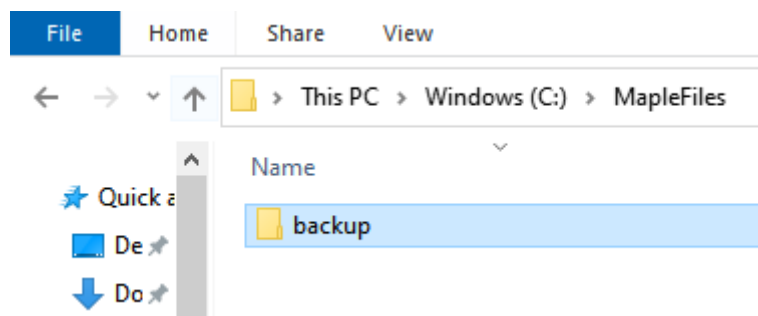
Figure 33: User-created "backup" folder in C:\MapleFiles directory

3. Within 5 minutes the directory will be automatically renamed to "backup_<date>_<time>" (Figure 34).
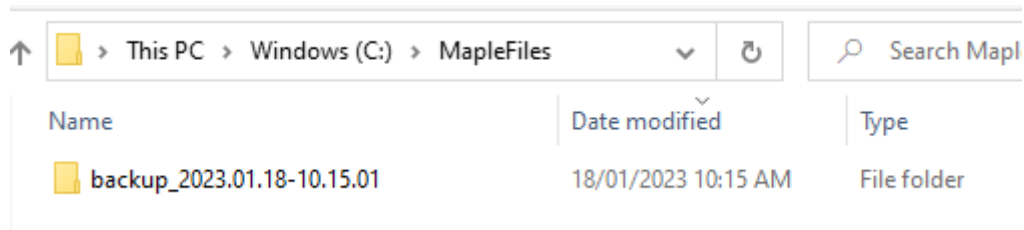
Figure 34: System-created "backup_<date>_<time>" folder in C:\MapleFiles directory

If the folder doesn't automatically rename within 10 minutes please contact ACER Helpdesk at maplehelpdesk@acer.org.

4. Open the renamed folder.

- If the database had been backed up the day it is exported, then inside the renamed folder there should be a password-protected zip file named db_backup_<date>.zip (Figure 35).
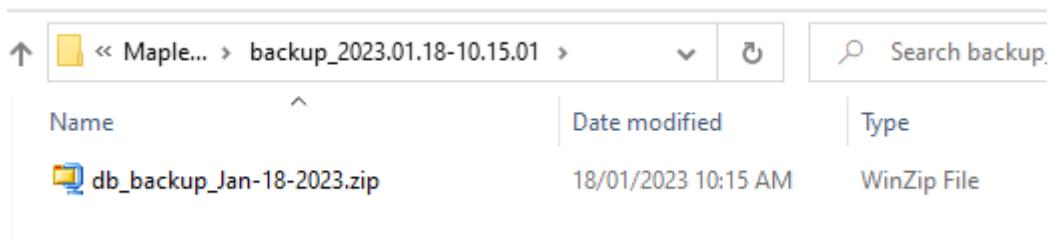
Figure 35: Password-protected zip file containing database backup

- If there is no database backup in the ACER Maple VM for the current day, the zip file exported to the "backup_<date>_<time>" folder will be called NoTodaysBackupFound.zip (Figure 36).
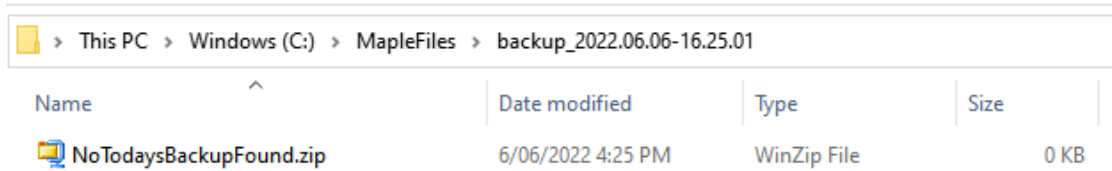
Figure 36: NoTodaysBackupFound.zip file

- If this is the case repeat steps 1 - 4 of this instruction.

5. Open the db_backup_<date>.zip file:

- If it contains a folder named 'shiny' (Figure 37), go to the next step.
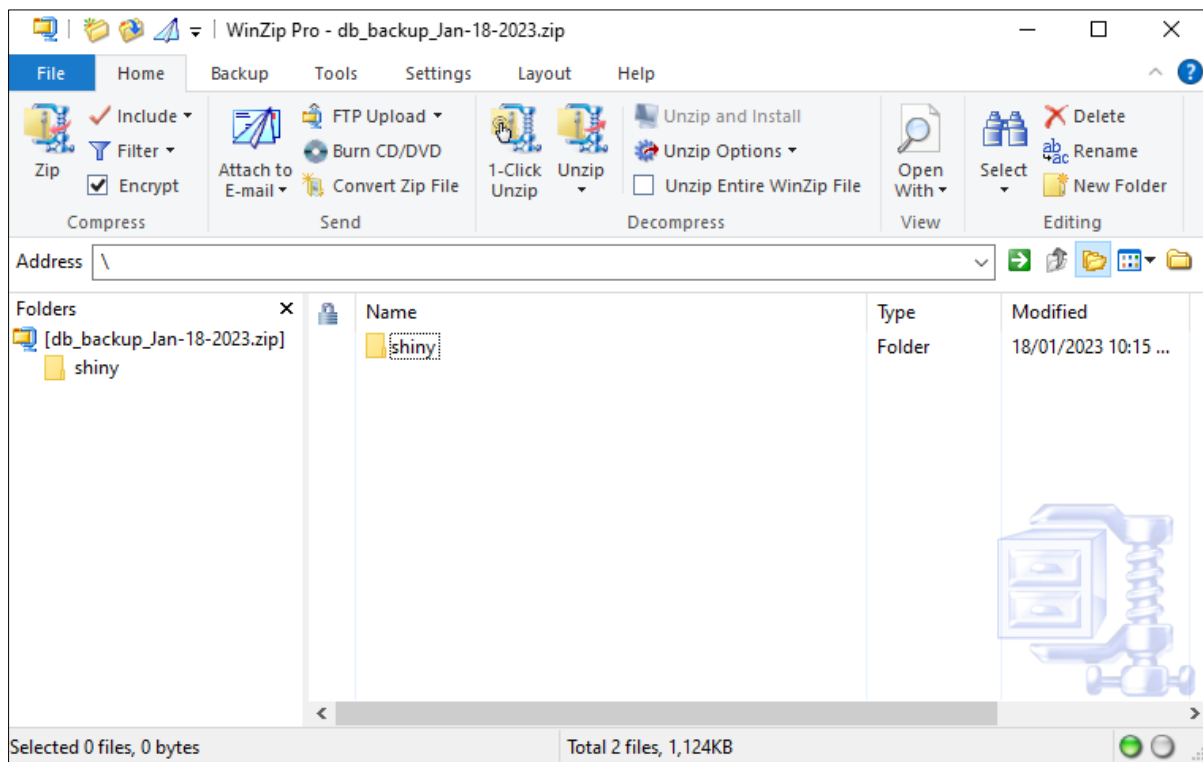
Figure 37: Contents of db_backup zip file

- If the 'shiny' folder is not in the zip file, repeat steps 1 - 5 of this instruction

6. Once the db_backup_<date>.zip file has been successfully created, the "backup_<date>_<time>" folder can be moved or copied to an alternative location (e.g. USB or HD that is physically secured against unauthorised access).

> Please note that **if an error does occur with the ACER Maple software, any data that has not been backed up may be permanently lost.**

2.8   User Settings

2.8.1   First login

Due to the secure nature of the AMPL data, ACER Maple is login protected. In order to login to ACER Maple, you need to know your domain (see section 1.2.1), username and login code.

If you are a **data manager**, your domain consists of:

- Survey ID: 033;

- Entity ID: this 6-digit string is specified in the 'Country 6-digit code' column of Table 1 (page 12); and

- Admin ID: 00.

The data managers' secure usernames and temporary login codes will be emailed to your NC by ACER together with a notification that your customised national version of ACER Maple is ready to be downloaded from a designated website.

Each NC can have one or more data managers depending on how many grade levels they are assessing in how many languages. For example, if two year levels are assessed in English NC can have two datamanagers.
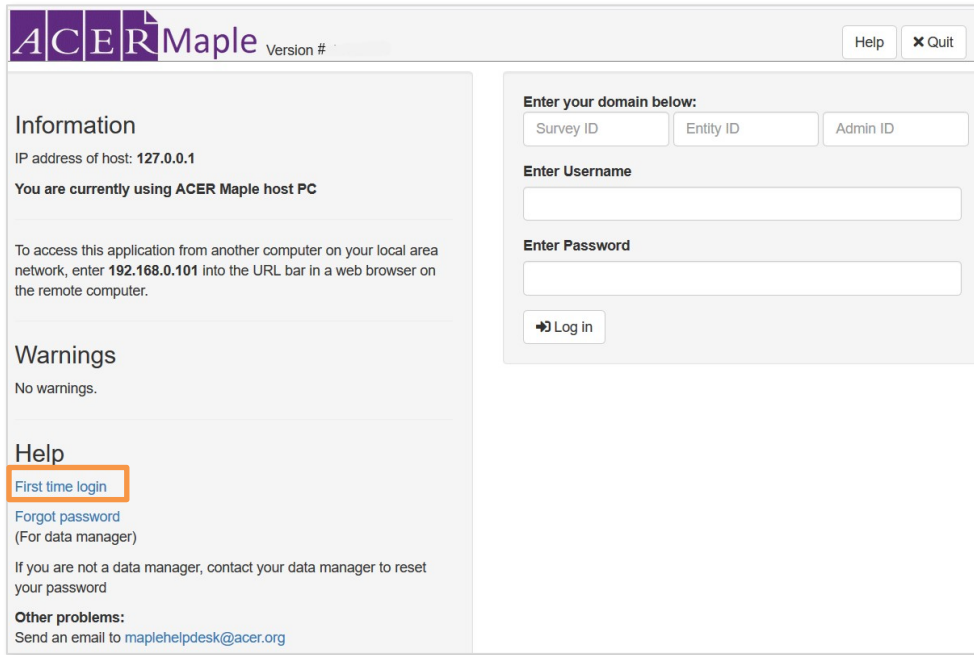
If you are a **data administrator**, your domain consists of:

- Survey ID: 033;
- Entity ID (see Table 1, page 12); and
- Admin ID: this 2-digit number is assigned to you by your data manager.

The data administrator's secure username and login code will be provided by the data manager after he/she has created data administrator login details as described in section 2.8.3.

To login for the first time:
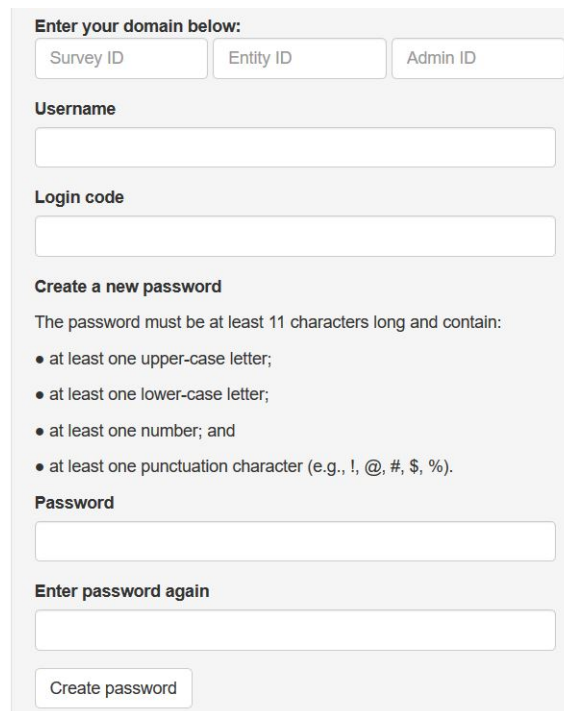
1. Open ACER Maple by pasting the IP address of the host PC into the address bar of an internet browser (**only Mozilla Firefox or Google Chrome**). The *Login* screen will appear (Figure 38).

Figure 38: *First time login* function on the ACER Maple *Login* screen

2. On the left-hand side of the *Login* screen under 'Help', click **First time login**. The *Password Creation* screen will appear (Figure 39).

Figure 39: *Password Creation* screen

3. Enter your Survey ID (033), Entity ID (6 digits) and Admin ID (2 digits).

4. Enter your secure username and the login code.

5. Create your password. The password must be at least 11 characters long and contain:

    ‣   at least one upper-case letter;

    ‣   at least one lower-case letter;

    ‣   at least one number; and

    ‣   at least one punctuation character (e.g., !, @, #, $, %).

6. Enter the password again.

7. Click **Create Password**.

8. Click **Back** to return to the *Login* screen (Figure 38).

9. On the top right-hand side of the *Login* screen, Enter your Survey ID (033), Entity ID (6 digits) and Admin ID (2 digits).

10. Enter your username and your new password.

11. Click **Login**. The ACER Maple main screen will appear (Figure 40).
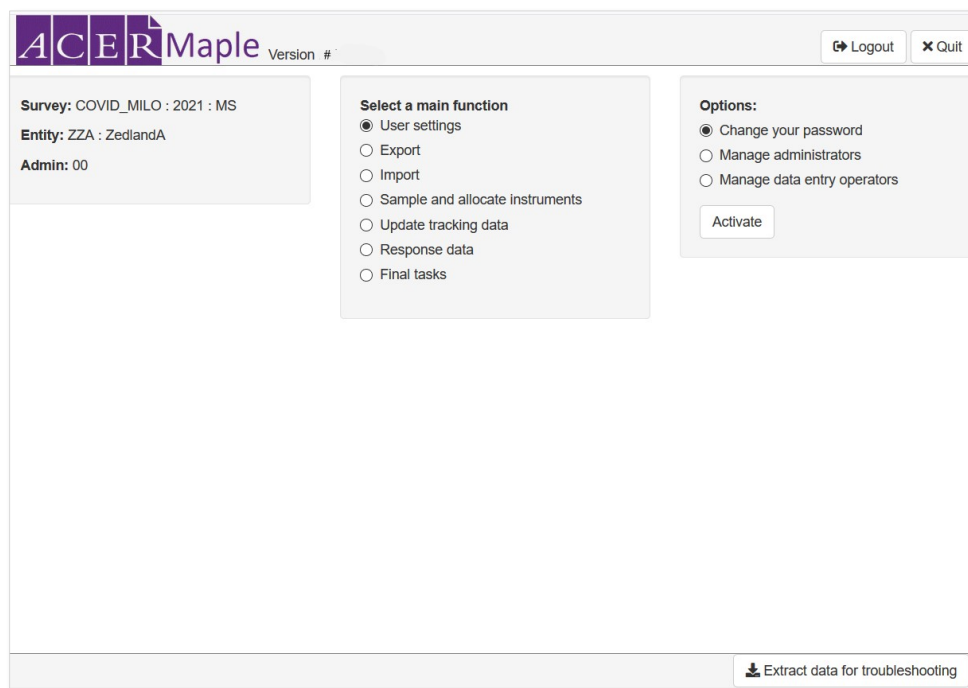
Figure 40: ACER Maple Main screen-[update when the training version is ready]-

2.8.2   Changing your password (all users)

To change your own password:

1. On the main screen select **User settings > Change your password** and then click **Activate**. The *Change your password* screen will appear (Figure 41).

Figure 41: *Change your password* screen

2. Enter your current password.

3. Enter your new password. The password must be at least 11 characters long and contain:

   ▸ at least upper-case letter;

   ▸ at least one lower-case letter;

   ▸ at least one number; and

   ▸ at least one punctuation character (e.g., !, @, #, $, %).

4. Enter your new password again.

5. Click **Confirm** (in the bottom right corner of the screen)**.** A message confirming the update will appear.

6. Click **Dismiss**.

2.8.3 Creating and deleting data administrator logins

> ! The data manager must create **exactly** as many data administrator logins as there are Admin ID values in the LSS.

Creating new data administrator logins

To create new data administrator logins:

1. On the *Login* screen enter your domain: Survey ID (033), Entity ID (6 digits) and Admin ID (00).

2. On the main screen select **User settings > Manage administrators** and then click **Activate**. The *Manage data administrators* screen will appear (Figure 42).

Figure 42: *Manage data administrators'* screen-[update when the training version is ready]-

3. Ensure that 'Create' is selected on the left-hand side of the screen.

4. In the '**Number of new users**' field, select the number of new administrator logins you wish to create. The '**New administrators**' table on the right is automatically updated with the required number of rows (Figure 43).

Figure 43: Number of new users selected

5. In the '**New administrators**' table, enter the *User name* and *User affiliation* for each new administrator login (Figure 44).

New administrators

	Admin ID	User name	User affiliation
1	01	Admin1	ZZA
2	02	Admin2	ZZA
3	03	Admin3	ZZA
4	04	Admin4	ZZA
5	05	Admin5	ZZA

Figure 44: New administrators' table [==update when the training version is ready; include grade==]-

> ! Each Admin ID must be assigned a **unique** 'User name'.

6. Click **Save** in the right bottom corner of the screen. A message confirming the creation of the new data administrators will appear.

7. Click **Confirm**. Another confirmation message will appear.

8. Click **Dismiss**. In the **Existing administrators** table, a row will appear for each new data administrator that has been created (Figure 45). The 'First time login code (internal)' column contains automatically generated first time login codes that each administrator will need the first time they log in to ACER Maple (section 2.8.1).

Existing administrators

	Admin ID	User name	User affiliation	First time login code (internal)
1	01	Admin1	ZZA	zQu[Kh*>Wv9
2	02	Admin2	ZZA	[N{2Vgg(~.p
3	03	Admin3	ZZA	u*Gs)DU@H_0
4	04	Admin4	ZZA	5ODH}%<)gj?
5	05	Admin5	ZZA	ze+ZWx7c<0Z

Figure 45: Newly-created data administrator logins in the Existing administrators table

9. Save a copy the content of the table in Excel. You will need to provide each data administrator with their usernames and first time login codes at the time of data administrator training (see more details about training in Chapter 4).

Deleting data administrator logins

To delete data administrator logins:

1. On the *Login* screen enter your domain: Survey ID (033), Entity ID (6 digits) and Admin ID (00).

2. On the main screen select **User settings > Manage administrators** and then click **Activate**. The *Manage data administrators* screen will appear.

3. Ensure that 'Delete' is selected on the left-hand side of the screen (Figure 46).

4. In the **Existing administrators** table a new 'Delete' column will appear. Check the box beside any data administrator to be deleted.
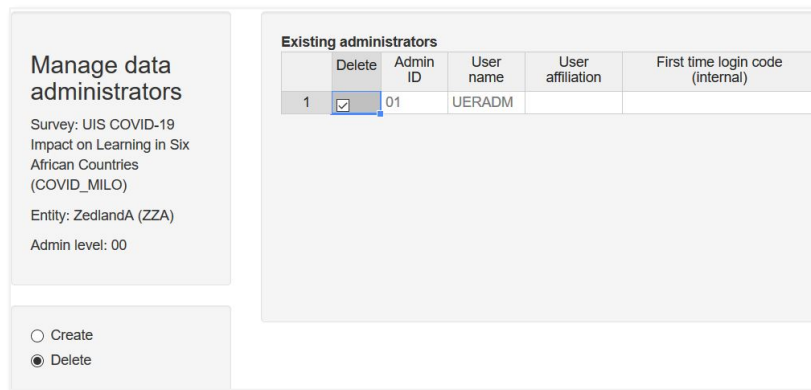
Figure 46: Deleting data administrator logins in the *Manage data administrators'* screen

5. Click **Save**. A message confirming the deletion of the selected data administrator logins will appear.

6. Click **Confirm**. A confirmation message will appear.

7. Click **Dismiss**.

2.9   Navigation and functions of ACER Maple

2.9.1   *The ACER Maple Main screen*

At the top of the main screen of ACER Maple (Figure 47), next to the ACER Maple logo, is the ACER Maple version number.

> The version number on the *Main* screen **must** be the same as in the despatch email or higher.
>
> If the version number on the *Main* screen is lower than in the despatch email:
>
> - Make sure that you have downloaded the latest despatch from the MyCloud folder designated to your country.
>
> - If the latest despatch contains a version lower than indicated in the despatch email, contact ACER Helpdesk at maplehelpdesk@acer.org, specifying your 3-letter country code and subject (Despatch version) in the subject line of the e-mail.

Also at the top of the main screen, on the right-hand side, there are two buttons: **Logout** and **Quit**.

- The *Logout* button allows a user to log out from ACER Maple without shutting down the application.

- The *Quit* button shuts down the application.

Listed directly beneath the ACER logo is the domain to which the currently logged-in user has access. Each AMPL user has access to the following domains depending on their affiliation (e.g. entity) and status:

▸ **Survey**: AMPL: 2023: MS

▸ **Entity**: your country 3-letter code, country code and grade level-[check on training data if the same 3-letter code is OK for more than 1 entity]-; and

▸ **Admin:** 00 for data managers and 01, 02 etc. for data administrators.

The middle section of the main screen contains a list of *main functions* and the section on the right lists any *options* that are available for each of the main functions. Section 2.9.2 lists all of the functions

and associated options, and whether a data manager or data administrator login must be used to access them.

After a main function and an option are selected, the **Activate** button must be clicked to initiate the function.
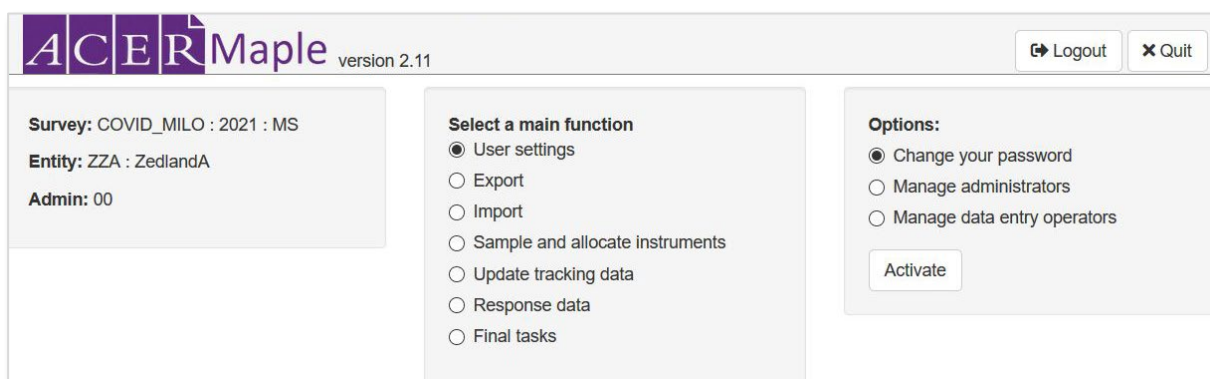
Figure 47: ACER Maple main screen-[==update when the training version is ready==]-

2.9.2   *Main functions of ACER Maple*

All of the ACER Maple main functions are accessed from the list of main functions on the main screen (Figure 47). These functions and all related options are listed in Table 3. The last column in this table indicates whether a data manager or a data administrator must be logged in to ACER Maple to be able to use the listed function. Data administrators can only access a limited selection of main functions compared to data managers, and data entry operators can only key in data.

Any options that are shaded green in Table 3 **must be performed using a data administrator login**, even though these options also appear in the list of main functions available to data managers. Similarly, **a data entry operator login must be used for keying in responses** (yellow shading in Table 3).

Table 3: ACER Maple functionality in relation to different users

Main function	Options	User
User settings	Change your password	All users
	Manage administrators	Data manager
	Manage data entry operators	Data administrator
Export	Initial data	Data manager
	Template documentation	Data manager
	Field data	Data administrator
	List of candidates	Data manager
	Institution list	Data manager
	Remaining warnings	Data manager
Import	Field data	Data administrator
Sample and allocate instruments	Sample and allocate	Data administrator
Update tracking data	Field operation forms	Data administrator
	Institution participation form	Data manager
Response data	Export data entry documentation	Data manager

Main function	Options	User
	Key in responses	Data entry operator
	Validate respondent list	Data administrator and data manager
	Export response data	Data manager
Final tasks	Explain warnings	Data manager
	Submit data	Data manager

2.9.3   Returning to the ACER Maple main screen (Back button)

After a main function and an option are selected and **Activate** is clicked, you will be transferred to the corresponding function screen. In the top right corner of any function screen there is a **Back** button which allows you to return to the main screen (Figure 48), beside the **Logout** and **Quit** buttons.

Figure 48: ACER Maple Back, Logout and Quit buttons

Any time you click **Back** you will be asked to confirm that you wish to go back to the main screen and warned that any unsaved changes will be lost (Figure 49).
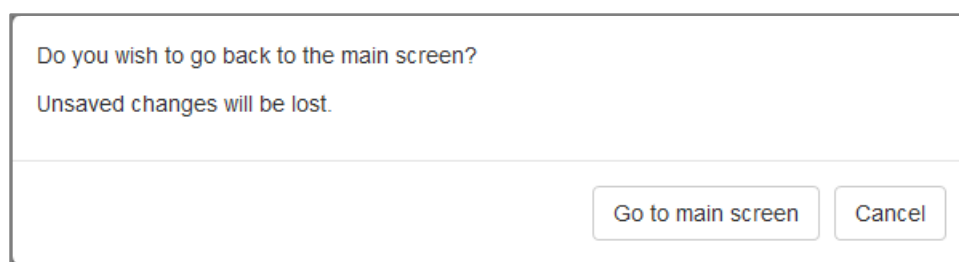
Figure 49: Back confirmation message

Take this warning seriously:

- if all changes have been saved, click **Go to main screen**; or
- if all changes have **not** been saved, click **Cancel** and save your changes before returning to the main screen.

> For navigation between ACER Maple screens **only use the buttons within ACER Maple**.
>
> The **Go Forward** ($\rightarrow$) and **Go back** ($\leftarrow$) browser buttons will trigger going to the next/previous browser page that was open before you logged in to ACER Maple and therefore your connection with ACER Maple will be **lost**. If there was any unsaved work this will also be **lost**. **There will be no message warning about unsaved changes if the browser buttons are used.**

2.9.4 Session timeout

If you are logged in to ACER Maple but have been inactive for 2 hours or more you will automatically be logged out. The browser page will appear greyed out and a message will appear explaining that the session has timed out (Figure 50).

> Session timeout
>
> Session timeout due to inactivity at 2019-12-17 14:03:08
>
> You have been logged out.
>
> Please refresh the page for a new connection and log in again.
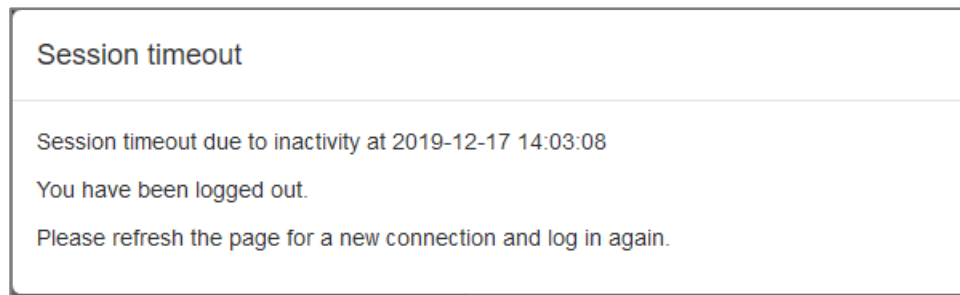
Figure 50: Session timeout message

In this case:

1. Click the refresh button in your browser (⟳) to refresh the page and re-activate ACER Maple; and then

2. Login to ACER Maple.

> Use the refresh button in the browser **only** if the session has timed out. The browser refresh button initiates a new session in ACER Maple. If your session was active at the time it will not be ended properly, and any unsaved or unfinished work will be **lost**.
>
> When you try to login again after refreshing the page, you may see a message warning that the user is already logged in. In this case click the ACER Maple **Quit** button, refresh the page and login again.

3 NECESSARY DOCUMENTATION

3.1   Initial Data

During the <u>school</u> sampling process sampling tasks containing country-specific sampling information are agreed between your NC and ACER and uploaded onto ACER Teams. This process is finalised by agreement of the School Tracking Form. Excerpt from the School Tracking Form is imported into ACER Maple as a List of Sampled Schools (**LSS**).

At the same time, your Questionnaire Adaptation Spreadsheet (QAS) must be agreed with ACER. Excerpt from the QAS is imported into ACER Maple as a Questionnaire Structural Adaptations (**QSA**).

Before using ACER Maple, you need to:

1.   Export initial data (section 3.1.1)

2.   Compare the LSS data to the data in the agreed School Tracking Form (section 3.1.2).

> ⚠ If the LSS data does NOT match corresponding data in the School Tracking Form, let Alla Routitsky know immediatly (Alla.Routitsky@acer.org) cc to Maple Helpdesk [maplehelpdesk@acer.org)](mailto:maplehelpdesk@acer.org)
>
> - check these files carefully;
> - make sure that you understand the data in the LSS; and
> - keep the LSS and the agreed School Tracking Form handy during within-school sampling.

3.   Compare the QSA data matches the adaptations made to the corresponding questions in the agreed Questionnaire Adaptation Spreadsheet (section 3.1.3).

> ⚠ If the he QSA data does NOT match the adaptations made to the corresponding questions in the agreed Questionnaire Adaptation Spreadsheet, let Alla Routitsky know immediatly (Alla.Routitsky@acer.org cc to Maple Helpdesk maplehelpdesk@acer.org and [Jennifer Hong@acer.org.](mailto:Hong@acer.org)).
>
> - check these files carefully;
> - make sure that you understand the data in the QSA; and
> - keep the QSA handy for data entry.

3.1.1 Exporting initial data

> ⚠ The data manager login must be used for the following function.

To export all initial data from ACER Maple in Excel format:

4. On the *Main screen* select **Export > Initial data** and then click **Activate**. The *Export Initial Data* screen will appear (Figure 51).

**Export
Initial Data**

Survey: PISA
(PISA_T)

Entity: ZedlandD
(ZZD)

Admin level: 00
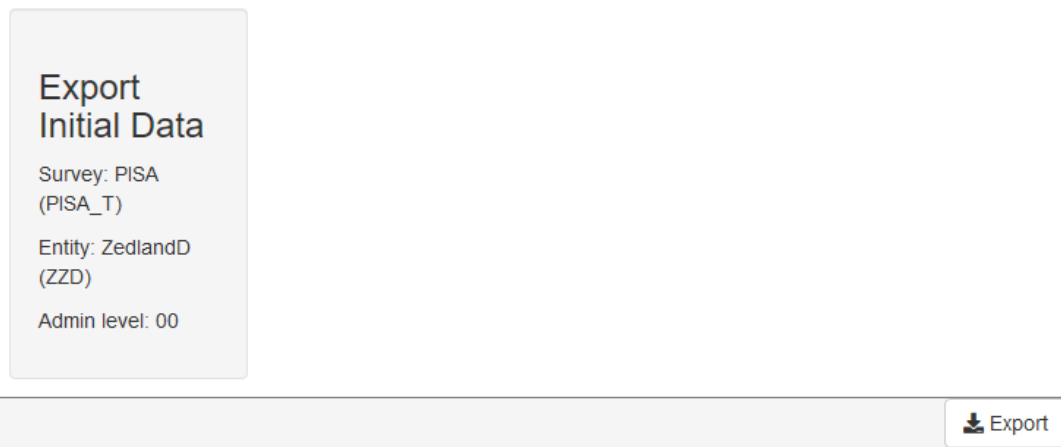
⬇ Export

Figure 51: *Export Initial Data* screen

5. Click **Export**. All initial data files will be combined into one zip file which will be available for download (Figure 52).

Opening Initial_Data_10_12_19_13_45.zip ✕

You have chosen to open:

🗔 **Initial_Data_10_12_19_13_45.zip**

which is: WinZip File (20.6 KB)
from: http://maple-uat.acer.edu.au

What should Firefox do with this file?

○ _O_pen with   WinZip (default)   ⌄

◉ _S_ave File

☐ Do this _a_utomatically for files like this from now on.

OK   Cancel
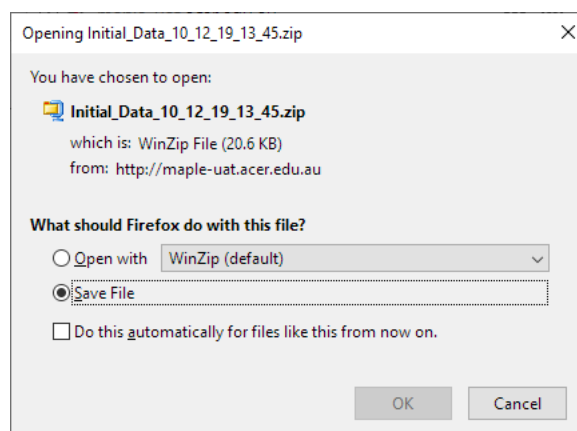
Figure 52: Initial data download pop-up

6. Select 'Save File' and save the zip file in an appropriate location and then unzip it.

> 📘 Keep the initial data files handy. You will need to be familiar with this data throughout the data management operations.

3.1.2 Understanding the LSS and checking it against School Tracking Form

Survey ID is a within-school sampling variable that distinguish the AMPL survey from other surveys using ACER Maple. It does not appear in the School Tracking Form.

Survey ID=033 for the AMPL.

CNT is your NC 3-letter code. Check that it corresponds to your country as indicated in Table 4.

Entity 6-digit code and **Combined option**. Different NCs selected different combinations of test design, grade level to be assessed, number of students to be sampled (TCS) from each class sampled for assessment, and number of languages of assessment (see Table 4):

- Each NC must export and check as many LSS files as the number of grade levels and languages they selected to assess in their country. Each LSS file will have different *Entity ID* (see Table 4).
- Each *Entity ID* is a 6-digit number based on the countries 3-digit ISO code, grade level assessed and language (if assessment is conducted in more than one language).
- Each *Combined option* is based on test design selected and TCS. If intact classes are assessed, combined option ends on 99.

Check that *Entity IDs* and corresponding *Combined option*s match the national options you selected.

Class option is '1' for all NC indicating that class is sampled in each school.

Table 4: LSS codes with respect to national options

Country	LSS variables				National options			
	CNT	Entity 6-digit code	Class option	Combined option	Grade	Language	Test design	TCS
India	QIN	035631	1	399	3	ENG	a	ALL
		035651	1	599	5	ENG	b	
		035652	1	599	5	HIN	b	
Kenya	KEN	040460	1	625	6	ENG	ab	25
Lesotho	LSO	042640	1	320	4	ENG	a	20
		042670	1	620	7	ENG	ab	20
Zambia	ZMB	089440	1	320	4	ENG	a	20
		089470	1	620	7	ENG	ab	20
Fictitious country	ZZA	098140	1	320	4	ENG	a	20
		098160	1	620	6	ENG	ab	20

Number of schools in the LSS, their identification, and their distribution:

1. Each LSS must contain ALL schools selected for you by ACER for each target grade and only these schools.
2. Check that ==School names== and their **National ID**s correspond to **Stratum ID**, and **School within stratum** assigned by ACER sampling team exactly the same way as had been agreed in the School Tracking Form for each target grade.
3. Check that the **AMPL School No**. values are different for different target grades even if the actual school is the same. Ensure that you and data administrators know which **AMPL School No**. values assigned to the schools they are responsible for.
4. Check that **Admin ID** is assigned to the schools the way you agreed with ACER sampling team and that you have as many values as the number of data administrators you intend to use.

==Replacement ID Original Stratum== ==Selection Number==

Table 5 and Table 6 contains examples of excerpts from two LSS files for ZZA (a fictitious country). Note that in this example NC is planning to have four data administrators, each one responsible for schools in each entity and stratum combination. Other arrangements are also possible. Any arrangements must be agreed with the ACER sampling team.

Table 5: LSS example for ZZA grade 4

1	Survey ID	CNT	Entity 6-digit code	Admin ID	Stratum ID	School within stratum	School Name	National ID	AMPL School No.	Class option	Combined Option
2	033	ZZA	098140	01	01	0001	School 123	ZZA123	1	1	320
3	033	ZZA	098140	01	01	0002	School 124	ZZA124	2	1	320
4	033	ZZA	098140	01	01	0003	School 125	ZZA125	3	1	320
5	033	ZZA	098140	01	01	0004	School 126	ZZA126	4	1	320
6	033	ZZA	098140	01	01	0005	School 127	ZZA127	5	1	320
7	033	ZZA	098140	02	02	0001	School 128	ZZA128	6	1	320
8	033	ZZA	098140	02	02	0002	School 129	ZZA129	7	1	320
9	033	ZZA	098140	02	02	0003	School 130	ZZA130	8	1	320
10	033	ZZA	098140	02	02	0004	School 131	ZZA131	9	1	320
11	033	ZZA	098140	02	02	0005	School 132	ZZA132	10	1	320

Table 6: LSS example for ZZA grade 6

1	Survey ID	CNT	Entity 6-digit code	Admin ID	Stratum ID	School within stratum	School Name	National ID	AMPL School No.	Class option	Combined Option
2	033	ZZA	098160	03	01	0001	School 123	ZZA123	451	1	620
3	033	ZZA	098160	03	01	0002	School 124	ZZA124	452	1	620
4	033	ZZA	098160	03	01	0003	School 125	ZZA125	453	1	620
5	033	ZZA	098160	03	01	0004	School 126	ZZA126	454	1	620
6	033	ZZA	098160	03	01	0005	School 127	ZZA127	455	1	620
7	033	ZZA	098160	04	02	0001	School 128	ZZA128	456	1	620
8	033	ZZA	098160	04	02	0002	School 129	ZZA129	457	1	620
9	033	ZZA	098160	04	02	0003	School 130	ZZA130	458	1	620
10	033	ZZA	098160	04	02	0004	School 131	ZZA131	459	1	620
11	033	ZZA	098160	04	02	0005	School 132	ZZA132	460	1	620

3.1.3 Comparing the QSA to the agreed national versions of the questionnaires.

All questionnaires require cultural and linguistic adaptations. However, some questions may require *structural adaptations*, meaning that the number of response categories and the meaning of these categories may change. These adaptations will be extracted by ACER questionnaire team into the Questionnaire Structural Adaptation (QSA) form and imported into ACER Maple to enable data entry as specified in the adaptations.

The questions that may require structural adaptations in the Student Questionnaire are:

ST03: *What is the main language that you speak at home?*

ST06: *What is the highest level of formal education completed by your mother or female guardian?*

ST08: *What is the highest level of formal education completed by your father or male guardian?* ST03

The questions that may require structural adaptations in the School Questionnaire are:

SC04: *What is the highest level of education you have completed?*

SC08: *What is the primary language of instruction at your school?*

Check in the QSA that:

- the response categories listed in the **National category label** column correspond to the categories in your agreed national versions of the questionnaires as indicated in Table 7; and
- in addition to questionnaire response categories check that QSA data contain auxiliary values for each question type. Auxiliary values foe QSA items are listed and their usage is explained in Table 8.

Table 7: QSA Question type ID for questionnaire items

Question type ID	Questionnaire items
1	ST03
2	ST06 and ST08
3	SC04
4	SC08

Table 8: Auxiliary values added to the questionnaire items in the QSA

QSA Question type ID	Questionnaire items	Usage
97	N/A	Item has not been printed properly
98	Invalid	More than one response is provided where only one is required
99	Missing	Response is not provided

Example of QSA for ZZA grade 6 (fictitious country) is provided in Table 9. The columns that require checking are highlighted in blue.

For example, ZZA data manager need to check that in their Student Questionnaire, question about language spoken at home (**Question type ID**=1), has response categories as follows: 01-English; 02-Kiswahili, 03-Other languages. In addition, he/she needs to check, that Auxiliary codes 97,98,99 are present in QSA for this question type. Similarly every question listed above must be checked.

The only difference for grade 4 QSA would be an entity ID.

Table 9: QSA Example (ZZA, grade 6)

1	Survey ID	Entity 6-digit code	Question type ID	Question type label	International category label	Data entry code	National category label	National category label (eng)	International code
2	033	098160	1	Language spoken at home	Language of assessment	01	English	English	eng
3	033	098160	1	-//-	Language 2	02	Kiswahili	Swahili	swh
4	033	098160	1	-//-	Other languages	03	Other languages	Other languages	qot
5	033	098160	1	-//-	N/A	97			qna
6	033	098160	1	-//-	Invalid	98			qin
7	033	098160	1	-//-	Missing	99			qms
8	033	098160	2	Parent education	ISCED level 6 or higher	01	Completed undergraduate or higher	Completed undergraduate or higher	600
9	033	098160	2	-//-	ISCED level 4 or 5	02	Completed middle level college (e.g. technical course, diploma course, certificate course)	Completed middle level college (e.g. technical course, diploma course, certificate course)	400
10	033	098160	2	-//-	ISCED level 3	03	Completed secondary school	Completed secondary school	398
11	033	098160	2	-//-	ISCED level 1	04	Completed primary school	Completed primary school	100
12	033	098160	2	-//-	Did not complete ISCED level 1	05	Did not complete primary school	Did not complete primary school	099
13	033	098160	2	-//-	N/A	97			997
14	033	098160	2	-//-	Invalid	98			998
15	033	098160	2	-//-	Missing	99			999
16	033	098160	3	Principal education	ISCED level 7 or 8	01	Completed higher degree (e.g. Master's degree, Post graduate degree)	Completed higher degree (e.g. Master's degree, Post graduate degree)	700
17	033	098160	3	-//-	ISCED level 6	02	Completed university level (e.g. Bachelor's degree)	Completed university level (e.g. Bachelor's degree)	600
18	033	098160	3	-//-	ISCED level 4 or 5	03	Completed middle level college (e.g. technical course, diploma course, certificate course)	Completed middle level college (e.g. technical course, diploma course, certificate course)	400
19	033	098160	3	-//-	ISCED level 3	04	Completed secondary school	Completed secondary school	398

1	Survey ID	Entity 6-digit code	Question type ID	Question type label	International category label	Data entry code	National category label	National category label (eng)	International code
20	033	098160	3	-//-	ISCED level 2 or below	05	Did not complete secondary school	Did not complete secondary school	200
21	033	098160	3	-//-	N/A	97			997
22	033	098160	3	-//-	Invalid	98			998
23	033	098160	3	-//-	Missing	99			999
24	033	098160	4	Language of instruction	Language of assessment	01	English	English	eng
25	033	098160	4	-//-	Language 2	02	Kiswahili	Swahili	swh
26	033	098160	4	-//-	Other languages	03	Other languages	Other languages	qot
27	033	098160	4	-//-	N/A	97			qna
28	033	098160	4	-//-	Invalid	98			qin
29	033	098160	4	-//-	Missing	99			qms

3.2   Field operation forms and ACER Maple functions

The **AMPL_DMR** folder that was despatched together with ACER Maple contains the following Excel files:

- List of Classes (LCL)
- Sampled Class form (SCL)
- List of Students (LST)
- Student Tracking Form (STF)
- School Questionnaire Tracking Form (SQTF)
- Student Assessment Labelling Form (SALF)
- School Participation Form (SPF)

Locate these forms and familiarise yourself with them prior to the data administrator training.

The **LCL, SCL**, **LST, STF,** and the **SQTF** templates are used by data administrators.

The SALF is filled with data by either data managers or data administrators and then used to label assessment materials.

The **SPF** is used by data managers to record school participation after the assessment.

Table 10 contains an overview of the data source(s) for each field operation form. It also explains how these forms relate to ACER Maple functions.

> The LCL and the LST *Information* worksheet will require linguistic adaptations which are explained in the *Note to NC*. Talk to your NPM if adaptations had not been done.

> **Note to the countries, where the word 'class' is used for grouping of students in the same grade level, taught by the same teacher**. Make sure that in the *Information* worksheet of the LCL and the LST the adaptations in row 6 are made and the *Note to NC* below row 6 is deleted (see examples in Table 15 and Table 17). Talk to your NPM if the changes had not been done.

> **Note to the countries, where the word 'class' is NOT used for grouping of students in the same grade level, taught by the same teacher.** Make sure that in the *Information* worksheet of the LCL and the LST the word **'class'** is explained in row 6 and the *Note to NC* below row 6 is deleted. Talk to your NPM if the changes had not been done.

Table 10: Overview of field operation forms and ACER Maple functions

Field operation form to be used	Data source	ACER Maple function
List of Classes (LCL)	Completed List of Students provided by schools.	Use **Import > Field data** to import List of Classes data either school-by-school or for multiple schools simultaneously.
Sampled Class (SCL)	After class sampling, ACER Maple generates a forms populated with sampled class data.	After class sampling, use **Export > Field data** to export sampled class data into the sampled class template.
List of Students (LST)	Completed List of Students provided by schools.	Use **Import > Field data** to import List of Students data either school-by-school or for multiple schools simultaneously.
Student Tracking Form (STF)	Before the assessment: After student sampling, ACER Maple generates student tracking forms populated with sampled students' data.	Before the assessment: After student sampling, use **Export > Field data** to export sampled students' data into the student tracking form template.
	During the assessment: TA adds student participation and updates student demographic data with help from SC.	After the assessment: Use **Update tracking data > Field Operation Forms** to update student participation and demographic data.
School Questionnaire Tracking Form (SQTF)	Before the assessment: ACER Maple populates this form with the list of school principals for schools in each domain. Completed by the data administrator for each domain on receipt of materials.	Use **Export> Candidate List** to populate the template with the data from ACER Maple.
	After the assessment: Completed by the data administrator for each domain on receipt of materials.	Use **Update tracking data > Field Operation Forms** to update school questionnaire receipt after the assessment.
Student Assessment Labelling Form (SALF)	After student sampling and before the assessment, ACER Maple generates student SALF populated with sampled students' data	Use **Export> Candidate List** to populate the template with the data from ACER Maple.
School Participation Form (SPF)	Before the assessment: Exported from ACER Maple by the data manager.	Use **Export > Institution list** to export list of schools eligible to participate.
	After the assessment: Completed by the data manager on receipt of materials.	Use **Update tracking data > Institution participation form** to import school participation data.

> The processes of collecting class and student lists from schools and using tracking forms by TA and SC are explained in the relevant field operation manuals. Please ask your NPM for an adaptad version of the manual required.

3.3   Codebook and format files for field operation forms

3.3.1   Exporting template codebook and format files

Codebook files describe the internal structure of ACER Maple templates and give information about the variables in them. Codebook files are exported in Excel format.

Format files contain only column headings. They are useful to check that column headings in the corresponding worksheet of the Excel template match the column headings in ACER Maple. Format files are exported in Excel format.

> ⚠️ The data manager login must be used for the following function.

To export template codebook and format files:

1. On the main screen select **Export > Template documentation** and then click **Activate**. The *Export template documentation* screen will appear (Figure 53).

Figure 53: *Export template documentation* screen-[update when the training version is ready]-

2. From the **Select templates** drop-down list select following templates: LCL, SCL, LST, STF, and SQTF.

3. In the **Export options** list de-select any export options that are not required. By default, both template codebook and template format options are selected.

4. Click **Export**. All codebook and/or format files will be combined into a single zip file which you will be prompted to download (Figure 54).
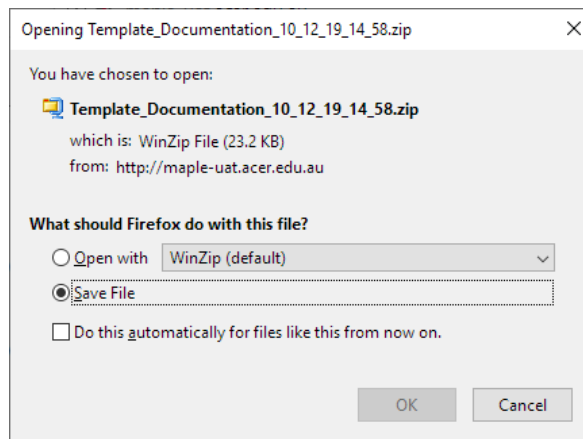
Figure 54: Template documentation zip file

5. Select **Save File** and click **OK** to save the zip file. Manually enter or navigate to an appropriate location to save the file.

6. Once the file has downloaded, open it and extract the files to an appropriate location.

7. Prepare sufficient number of copies for data administrators to use during training.

8. Proceed to section 3.3.2 to learn how to interpret codebooks.

3.3.2   Interpreting codebooks

Each Excel codebook file contains two worksheets:

1. a list of all variables in the template and information about them (e.g. formats);

2. value labels for selected variables.

The worksheet containing variables has 10 columns of data. The data in each column is explained in Table 11 (page 60). The provided examples are excerpts from the codebook of the standard List of Students (LST) template presented in Table 12.

Value labels are not required for every value of every variable, but only for those values whose meaning could not be provided by the variable labels or column headings. Table 13 shows value labels for some variables in the standard List of Students (LST) template.

Table 11: Codebook columns in the worksheet containing variables

Column	Column heading	Description
A	Column/Row headings	The column heading as it appears in the Excel template.
B	Variable type	There are four variable types: fixed-width string (e.g. Line No.), long string (e.g. Student Name), integer (e.g. Study programme), and numeric (e.g. AMPL School No.). The variable type determines how the validation rule is defined in the next five columns.
C	Variable min	These two columns define the range of values for any variables that can be defined with a range of values (e.g. for Month of Birth the possible range of values is from 01 to 12). If the validation rule is not defined with a range of values, such as for a long string variable, Min=Max=0.
D	Variable max	
E	Out-of-range values	Any valid values not included in the range are listed (if required). E.g. Gender has an additional value of 9 –'Missing' added to the range of 1-3. This column in the codebook is left blank if there is no out-of-range values.
F	Variable width	For fixed-width string variables this is the exact number of characters that the variable can have (e.g. Gender must have exactly one character). For all other variables this is the maximum number of characters that the variable can have (e.g. Student Name can have up to 60 characters, but does not need to use all of them).
G	Decimal places	For numeric variables this column lists the number of decimal places that are saved in the data. For all other variables It is 0.
H	Variable label	A short description of the variable.
I	Variable name	A short alphanumeric string. The variable name must be unique. It is used in a number of different places, particularly in SPSS and SAS control files when data is downloaded.
J	Table acronym	The acronym of the ACER Maple table (internal) which contains the data for this variable.

Table 12: LST template codebook – variables worksheet-[update after configured]-

	A	B	C	D	E	F	G	H	I	J
1	Column/Row headings	Variable type	Variable min	Variable max	Out-of-range values	Variable width	Decimal places	Variable label	Variable name	Table acronym
2	AMPL School No.	numeric	0	99999999		8	0	Institution tracking	srtrack	MPT2
3	Line No.	fixed-width string	00000	99998		5	0	Input line number	idinp	MPT2
4	Student Name	long string	0	0		180	0	Record name in TCD	tcname	TCD2
5	Gender	fixed-width string	1	3	9	1	0	Gender	mpin01	MPT2
6	Month of Birth	fixed-width string	01	12	[97;98;99]	2	0	Date of birth-month	mpin04	MPT2
7	Year of Birth	fixed-width string	1920	2599	[9997;9998;9999]	4	0	Date of birth-year	mpin05	MPT2
8	SEN	integer	0	6		1	0	SEN	mpin14	MPT2
9	Grade Level						0	Grade		MPT2
	Class Name	long string	0	0		100	0	Option 21	mpin21	TCD2
	Class ID						0			

Table 13: LST template codebook – value labels worksheet-[update after configured]-

	A	B	C	D	E
1	Column/Row headings	Variable name	Variable label	Value	Value label
2	Gender	Gender	mpin01	1	Female
3	Gender	Gender	mpin01	2	Male
4	Gender	Gender	mpin01	3	Other
5	Gender	Gender	mpin01	9	Missing
7	Month of Birth	mpin04	Date of birth-month	98	Invalid
8	Month of Birth	mpin04	Date of birth-month	99	Missing
10	Year of Birth	mpin05	Date of birth-year	9998	Invalid
11	Year of Birth	mpin05	Date of birth-year	9999	Missing
12	SEN	mpin14	SEN	0	Default, no SEN
13	SEN	mpin14	SEN	1	Functional disability
14	SEN	mpin14	SEN	2	Cogn., behav. or emot. disability
15	SEN	mpin14	SEN	3	Limited language proficiency

3.4   Keeping track of school participation

During the field operations stage of the AMPL, the data manager should ensure that school participation status is tracked. A code for each school should be recorded either:

- in the School Participation Form exported from ACER Maple;

  OR

- in a file where all other information about AMPL schools is recorded.

School participation should then be updated in ACER Maple **after** all STF data from all participating schools) have been updated, **and before** the data is submitted to ACER (see details in section 9.6). The advantage of recording participation codes in the School Participation Form is that this form can be imported later into ACER Maple without any additional work. If school participation information is recorded elsewhere, the data needs to be manually transferred into the School Participation Form before it can be imported into ACER Maple.

> ! The data manager login must be used for the following function.

To export the School Participation Form (SPF) listing all AMPL schools for your NC:

1. On the main screen select **Export > Institution list** and then click **Activate**. The *Export institution list* screen will appear (Figure 55).

Export institution list

Survey: UIS COVID-19 Impact on Learning in Six African Countries (COVID_MILO)

Entity: ZedlandA (ZZA)

Admin level: 00
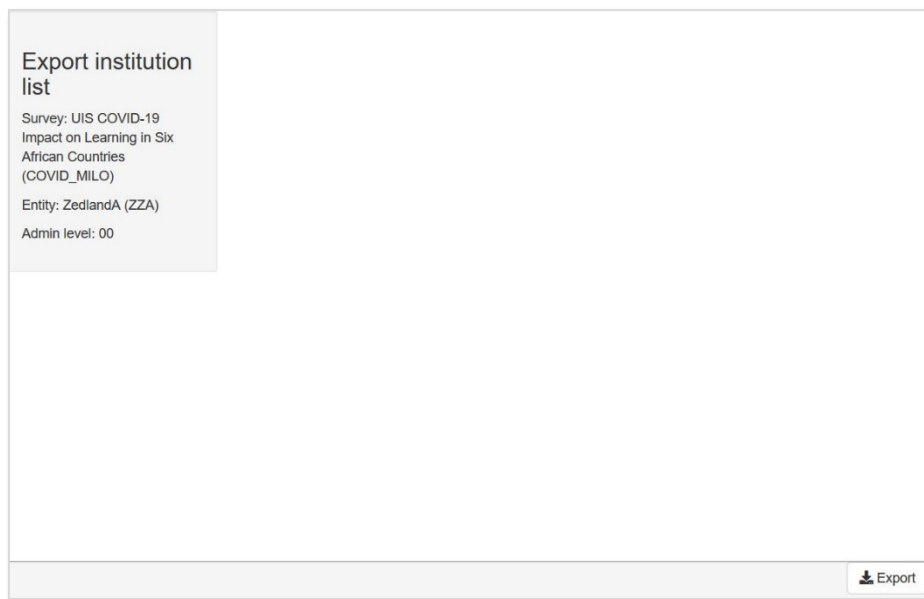
⬇ Export

Figure 55: *Export institution list* **screen**

2. Click **Export**. You will be prompted to save a zip file containing the School Participation Form.

3. Manually enter or navigate to an appropriate location to save the file and click **Save**.

4. Once the file has downloaded, open it and extract the School Participation Form to an appropriate location.

> 📘 Keep the the School Participation Form handy. You will need to provide a code for each school, including all replacements, as soon as you know the school's participation status. School participation codes can be found in section 9.6.1.

4 DATA ADMINISTRATOR TRAINING

4.1   Data administrator training agenda

Data managers are required to train data administrators before the assessment in how to use ACER Maple. For the purposes of training data administrators, data managers are advised to adapt materials in the *Data Management Training Package* (DMTP) zip file containing the *Data Management Training Presentation* and other training materials provided by ACER. However, not all topics included in this presentation will be required for data administrator training.

The topics that must be covered in data administrator training are outlined in Figure 56 and explained in detail in corresponding chapters of this manual, as well as in the *Data Management Training Presentation*. The following section explains how the data manager should prepare for data administrator training.
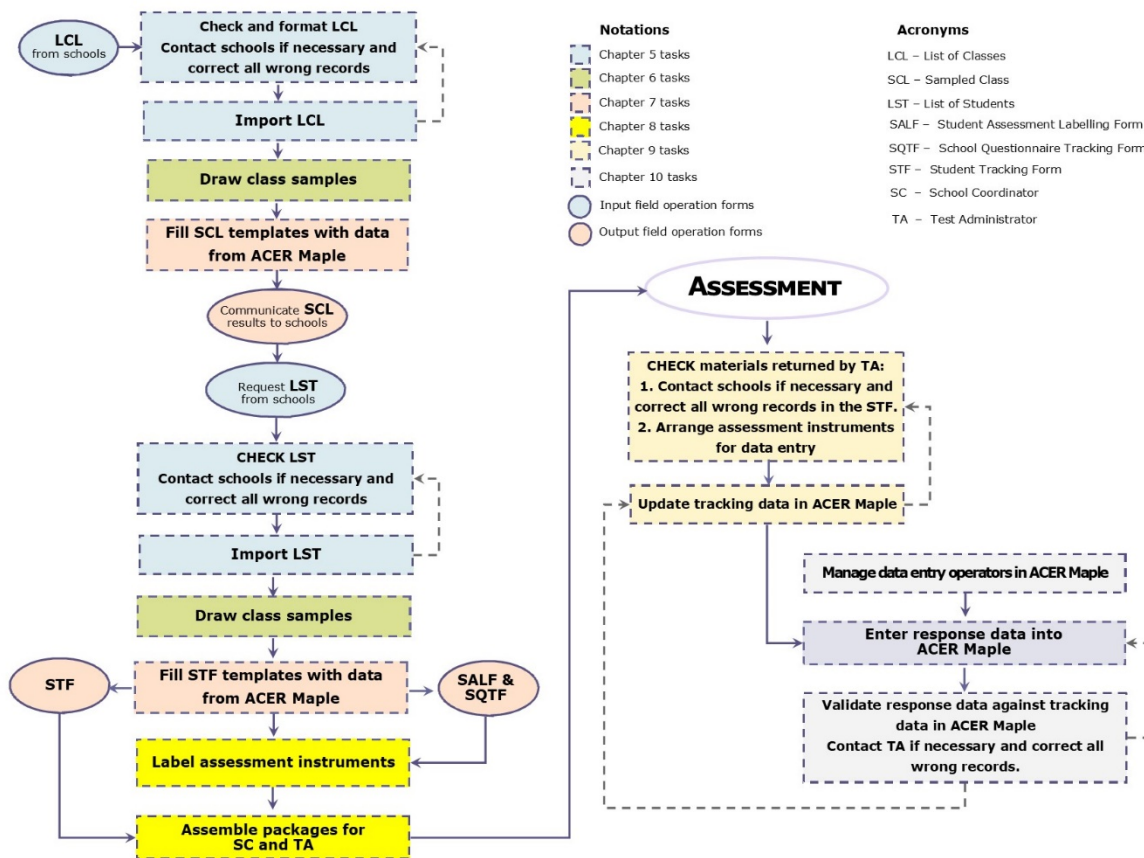
Figure 56: Data administrators' tasks for the AMPL

4.2   Preparation for data administrator training

Preparing the materials for data administrator training gives data managers an opportunity to better familiarise themselves with AMPL data management procedures and ACER Maple.

Note to National Centres assessing two grade levels

Data administrators reponsible for lower grade level data should be trained separately from the data administrators reponsible for the upper grade level data because corresponding materials for these sessions are different.

Table 14 lists the data manager's tasks in relation to data administrator training and provides references to relevant sections and/or chapters of this document.

For the purposes of data administrator training, a number of fictitious 'schools' have been included in the LSS and can be used to test some of the ACER Maple procedures before any real data is available. These 'schools' are found in stratum 99 of the LSS, for every value of Admin ID.

Each data administrator **must** be trained to work within their allocated domain (see section 1.2.1 for the definition of domain).

Table 14: Data manager tasks in relation to data administrator training

Preparation task	Reference
Ensure that training setup corresponds to the real working conditions of data administrators.	Section 4.3, Introduction, Chapters 1 and 2
Prepare necessary documentation	Chapter 3
Download DMTP provided by ACER.	DMTP
Prepare training field operation forms for schools from stratum 99.	Sections 4.4-4.6 and DMTP
Adapt DMTP exercise on checking and importing LST.	Chapter 5 and DMTP
Adapt DMTP exercise on student sampling from schools in stratum 99	Chapter 6 and DMTP
Adapt DMTP exercise on populating STF templates with sampling data.	Chapter 7 and DMTP
Adapt DMTP exercise on checking and updating STF 'after the assessment'.	Section 4.6, Chapter 9 and DMTP

Note to National Centres assessing grade levels different from 6 and using design a or design b

Sections 4.4-4.6 provide examples for grade 6 and design a+b. These examples must be modified if your NC assessing different grade levels with different designs.

4.3 Training setup

Data administrator training should be set up to correspond to the real working conditions of data administrators as much as possible. To achieve this, you should make sure that:

1. All data administrators attend the training

2. The required computing equipment is ready:

   ▸ ACER Maple is installed in a LAN environment as described in Chapter 2 with one of PCs for each data administrator plus one host PC.

   ▸ each PC meets the system requirements and PC setup (sections 2.2 and 2.3); and

   ▸ administrator logins are created for each data administrator as explained in section 2.8.3

3. LCL, SCL, LST, STF, SALF and SQTF templates are copied over to every data administrator PC.

4. Audio-visual equipment is ready to use. Some examples of this equipment might include:

   ▸ a projector for viewing the *Data Management Training Presentation*, ensuring that the screen is visible from every data administrator workstation; or

   ▸ a second monitor for each data administrator, so that they can watch the *Data Management Training Presentation* on one monitor and complete the training exercises using another monitor.

4.4 Prepare training List of Classes data

The List of Classes (LCL) template is despatched together with ACER Maple. It is designed as an Excel file with two worksheets:

- the *Information* worksheet, containing school information and instructions for School Coordinators; and

- the *List of Classes* worksheet, containing class data.

Both worksheets should be copied and populated with fictitious information by the data manager in preparation for data administrator training.

Table 15 shows an example of the *Information* worksheet prepared for training. This example can be used as a basis for creating your own *Information* worksheet of the LCL template used for training. Please note that:

- For **training** purposes, the ***AMPL School No*** value in row 5 **must** correspond to a 'school' in stratum 99 of the List of Sampled Schools (LSS) agreed between your NC and ACER.

- The total number of classes listed in row 4 should correspond to the number of classes listed in the *List of Classes* worksheet ('3' in this example).

- The DIRECTIONS in row 6 should be:

  ▸ As they are shown in Table 15 with the exception of grade level IF the word 'class' is used in your country for grouping of students in the same grade level, taught by the same teacher.

  ▸ IF the word 'class' is NOT used for grouping of students in the same grade level, taught by the same teacher, make sure that the word **'class'** is explained in row 6 and the *Note to NC* below row 6 is deleted. Talk to your NPM if the changes had not been implemented.

- The **grade level** in the DIRECTIONS in row 6 should correspond to the <u>grade level assessed in your country</u>.

Table 15: Example of LCL School information to be used training (as if 'returned from school')

1	School information					
2	**School name:**	Central school	**Telephone:**	4584563	**List prepared by:**	Mr SC ABC

3	National School ID.:	XT3Q5	Fax:	4584565	Date list prepared:	20/05/2023
4	Address:	Central avenue, 46	Email:	sc@schoolcentral	Total number of classes listed:	3
5	AMPL School No.:	1001				
6	DIRECTIONS FOR the *List of Classes* worksheet: Please list alphabetically by *Class name* ALL grade 6 classes in your school and the number of students in each class					

Table 16 shows an example of error-free class data in Excel format prepared for training. The data in this table can be used as the basis for creating your own LCL training data. You will need to create at least two lists of class data for training. One containing errors that data administrators should correct during the training and one that is error-free, like the example in Table 16.

When creating **error-free** LCL data for training, adhere to the following rules:

- **AMPL School No.** 'returned from school' should be empty. It will be populated with the AMPL School No value from the *Information* worksheet by the data administrator during training.
- **Line No.** 'returned from school' should be empty. It will be populated with sequential 5-digit string (00001, 00002,…) by the data administrator during training.
- **Grade Level** 'returned from school' should be empty. It will be populated with the grade level value from the *Information* worksheet by the data administrator during training.
- **Class name** should be listed in alphabetical order and if the class name contains the grade level like in example in Table 16, it should correspond to the grade level value from the *Information* worksheet.
- **No. of Students** should be close to the expected number of students in the class in your country.
- **Comments** can be left empty.

Table 16: Example of LCL data in Excel format to be used training (as if 'returned from school')

1	AMPL School No	Line No.	Grade Level	Class Name	No. of Students	Comments
2				6A	30	
3				6B	25	
4				6C	32	

> **Note to countries assessing more than one grade level.** Each grade level will need a separate LCL file for import.

4.5   Prepare training List of Students data

After an error-free LCL for the fictitious school has been prepared and populated with 'AMPL School No' and 'Line No' (see sections 5.2), data administrators can proceed to import it into ACER Maple (section 5.4). After the LCL has been successfully imported a class for assessment can be drawn (Chapter 6). After sampling the SCL template for the fictitious school can be populated with sampling data (Chapter 7). In real-life situation, the School Coordinator is informed about which class will be

participated in the assessment and asked to send the list of students enrolled in the sampled class. For training, pretend that this had been done and the list of students is received.

The List of Students (LST) template is despatched together with ACER Maple. It is designed as an Excel file with two worksheets:

- the *Information* worksheet, containing school information and instructions for School Coordinators; and
- the *List of Students* worksheet, containing student data.

Both worksheets should be copied and populated with fictitious information by the data manager in preparation for data administrator training.

Table 17 shows an example of the *Information* worksheet prepared for training. This example can be used as a basis for creating your own *Information* worksheet of the LST template used for training. When filling the *Information* worksheet in the LST please adhere to the following rules:

- For **training** purposes, the *AMPL School No* value in row 5 **must** correspond to a 'school' in stratum 99 of the List of Sampled Schools (LSS) agreed between your NC and ACER.
- The DIRECTIONS in row 6 should be:
  - ▶ As they are shown in Table 17 with the exception of grade level IF the word '**class**' is used in your country for grouping of students in the same grade level, taught by the same teacher.
  - ▶ IF the word '**class**' is NOT used in your country for grouping of students in the same grade level, taught by the same teacher, make sure that the word **'class'** is explained in row 6 and the *Note to NC* below row 6 is deleted. Talk to your NPM if the changes had not been implemented.
- **Grade Level** under **Sampled class information** should be populated with the grade level assessed in your country.
- **Class Name** and **Class ID** under **Sampled class information** should be populated with the corresponding values exported after class sampling into the SCL template.
- **Do not change instructions under Special Educational Needs (SEN) Codes** in the *Information* worksheet**.**

Table 17: Example of LST School information to be used training (as if 'returned from school')

1	School information					
2	**School name:**	Central school	**Telephone:**	4584563	**List prepared by:**	Mr SC ABC
3	**National School No.:**	XT3Q5	**Fax:**	4584565	**Date list prepared:**	20/05/2023
4	**Address:**	Central avenue, 46	**Email:**	sc@schoolcentral	**Total number of students listed:**	30
5	**AMPL School No.:**	1001				
6	**DIRECTIONS FOR the List of Students worksheet**: Please list ALL students in your school in sampled class (see Sampled class information below) and provide their demographic data. Use the list of codes in the Special Educational Needs (SEN) to fill the corresponding column in the List of Students worksheet. After the List of Students worksheet is filled with student data, fill out the three boxes above (i.e. 'List provided by', 'Date list prepared', and 'Total number of students listed').					
7						
8	**Sampled class information**				**Special Educational Needs (SEN) Codes:**	
9	**Grade Level**	**Class Name**	**Class ID**		**Code**	**Description**
11	6	<>	<>		0	No special educational needs

Table 18 shows an example of error-free student data in Excel format prepared for training. The data in this table can be used as the basis for creating your own LST training data. You will need to create at least two lists of student data for training. One containing errors that data administrators should correct during the training and one that is error-free, like the example in Table 18.

When creating **error-free** LST data for training, adhere to the following rules:

- **AMPL School No.** 'returned from school' should be empty. It will be populated with the AMPL School No value from the *Information* worksheet <u>by the data administrator during training</u>.
- **Line No.** 'returned from school' should be empty. It will be populated with sequential 5-digit string (00001, 00002,…) <u>by the data administrator during training</u>.
- **Student name** is usually listed in alphabetical order. Provide the names used in your country
- **Gender**: if the names in your language differ by gender, make sure that 1 is assigned to girls and 2 is assigned to boys.
- **Month of Birth** should be a random 2-digit string (between 01 and 12) as in the example in Table 18.
- **Year of Birth**: an appropriate value should be selected from the range of years within which the students from the grade level being assessed in your country were born.
- **SEN**: most of the students should have '0' (no SEN), and a small number of students should have '1' (Functional disability), '2' (Cognitive, behavioural or emotional disability), or '3' (Limited language experience).
- **Grade Level**: replace 7 with the grade level being assessed in your country.
- **Class name** 'returned from school' should be empty. It will be populated with the class name from the *Information* worksheet <u>by the data administrator during training</u>.
- **Class ID** 'returned from school' should be empty. It will be populated with the class name from the *Information* worksheet <u>by the data administrator during training.</u>

For some 'schools' please create an LST containing *errors* and ensure that data administrators are trained to check LST data when it is received from schools. For example, include a *Month of Birth* value between '1' and '9' (i.e. without a leading zero), or/and *Gender* value of '0'. Read more about LST checks and correct formatting of LST variables in Chapter 5.

Table 18: Example of LST data in Excel format to be used in training (as if 'returned from school')

1		xxxxx	<Name> <Surname>	F=1; M=2	MM	YYYY		Class		
2	AMPL School No.	Line No.	Student Name	Gender	Month of Birth	Year of Birth	SEN	Grade Level	Class Name	Class ID
3	1001	00001	Xab Yac	1	01	2010	0	6	6C	3
4	1001	00002	Xac Yad	1	11	2011	0	6	6C	3
5	1001	00003	Xaf Yag	2	09	2010	0	6	6C	3
6	1001	00004	Xad Yag	1	08	2010	0	6	6C	3
7	1001	00005	Xaj Yak	2	05	2010	1	6	6C	3
8	1001	00006	Xab Yac	1	03	2010	0	6	6C	3
10	1001	00007	Xb Yacd	2	12	2010	0	6	6C	3
11	1001	00008	Xab Yah	2	11	2010	0	6	6C	3
12	1001	00009	Xak Yalk	1	03	2010	1	6	6C	3
13	1001	00010	Xkl Yvb	2	05	2010	0	6	6C	3
14	1001	00011	Xab Yfg	1	06	2010	0	6	6C	3
15	1001	00012	Xab Ykm	2	02	2010	0	6	6C	3
16	1001	00013	Xed Ygbn	2	04	2009	0	6	6C	3
17	1001	00014	Xsd Ymnv	1	10	2010	0	6	6C	3
18	1001	00015	Xcv Ywdj	2	07	2010	0	6	6C	3
19	1001	00016	Xth Ysdf	1	04	2010	2	6	6C	3
20	1001	00017	Xwe Ywsc	1	08	2010	0	6	6C	3
21	1001	00018	Xab Yuhj	2	03	2010	0	6	6C	3
22	1001	00019	Xerb Yjkl	1	01	2010	3	6	6C	3

4.6   Prepare updated STF

After an error-free LST for the fictitious school has been prepared and populated with additional information by data administrators (section 5.3), data administrators can proceed to import it into ACER Maple (section 5.4). After the LST has been successfully imported the student sample can be drawn (Chapter 6). After sampling the STF template for the fictitious school can be populated with sampling data (Chapter 7). The STF populated with sampling data will then need to have the SEN, Test Booklet No., Participation, and two Attendance (T and Q) columns completed manually as if by a Test Administrator. Refer to the Test Administrator Manual, if required.

Table 19 shows an example Student Tracking Form in Excel format containing training data ready to be updated in ACER Maple. The data in this table can be used as a basis for creating your own STF training data. Any STF training data should contain a AMPL School No value that corresponds to a 'school' in stratum 99.

For some fictitious schools please create an STF with errors and ensure that data administrators are trained to check STF data when it is returned by Test Administrators.

Table 19: Example of STF data in Excel format ready to be updated in ACER Maple during training

1	School Name	AMPL School No.		School Co-ordinator			Test Administrator			Session Date 1 (DD/MM)		Session date 2 (DD/MM)
2	*Central school*	*1001*		*Mr SC ABC*			*Ms TA XYZ*			*30/05*		*31/05*
3		**LST**		**F=1; M=2**	**MM**	**YYYY**		**Attendance**			**Class**	
4	Student Name	Line No.	AMPL Participant ID	Test Form	Gender	Month of Birth	Year of Birth	SEN	Test	StQ	Participation	Grade Level	Class Name	Comments

#	Student Name	Line No.	AMPL Participant ID	Test Form	Gender	Month of Birth	Year of Birth	SEN	Test	StQ	Participation	Grade Level	Class Name	Comments
5	Xab Yac	00001	96100106	5	1	01	2010	0	1	1	1	6	6C	
6	Xac Yad	00002	96100104	6	1	11	2011	0	0	1	0	6	6C	
7	Xaf Yag	00003	96100105	7	2	09	2010	0	1	0	0	6	6C	
8	Xad Yaf	00004	96100101	8	1	08	2010	0	0	0	1	6	6C	
9	Xaj Yak	00005	96100103	3	2	05	2010	1	1	1	0	6	6C	
10	Xab Yac	00006	96100108	4	1	03	2010	0	0	1	1	6	6C	
11	Xb Yacd	00007	96100102	5	2	12	2010	0	1	0	1	6	6C	
12	Xab Yah	00008	96100109	6	2	11	2010	0	1	1	1	6	6C	
13	Xak Yalk	00009	96100107	7	1	03	2010	1	0	0	0	6	6C	
14	Xkl Yvb	00010	96100110	8	2	05	2010	0	0	0	0	6	6C	
15	Xab Yfg	00011	96100115	3	1	06	2010	0	0	0	0	6	6C	
16	Xab Ykm	00012	96100120	4	2	02	2010	0	0	0	0	6	6C	
16	Xed Ygbn	00013	96100111	5	2	04	2009	0	0	0	0	6	6C	
18	Xsd Ymnv	00014	96100116	6	1	10	2010	0	0	0	0	6	6C	
19	Xcv Ywdj	00015	96100112	7	2	07	2010	0	0	0	0	6	6C	
20	Xth Ysdf	00016	96100117	8	1	04	2010	2	0	0	0	6	6C	
21	Xwe Ywsc	00017	96100113	3	1	08	2010	0	0	0	0	6	6C	
22	Xab Yuhj	00018	96100114	4	2	03	2010	0	0	0	0	6	6C	

5 PREPARING AND IMPORTING DATA FOR SAMPLING

5.1   Class and student sampling logistics

The logistics of sampling are illustrated in Figure 57, outlined below and explained in detail in relevant sections of this manual:

1. After data administrators have been trained, they will start checking class lists received from schools and formatting them into LCL files (sections 5.2), then importing the LCL data into ACER Maple (section 5.4).

2. After data from the LCL have been successfully imported into the ACER Maple database, class sampling is undertaken, which results in the one class being sampled (chapter 6) and SCL form populated with the sampled class data (chapter 7).

3. After that the SC must be contacted and asked for the student lists from the sampled class. After List of Students is received from schools, data administrators check and format the student lists received from schools into the LST files, then import the LST data into ACER Maple (sections 5.3 and 5.4).

4. Each time the data is imported into ACER Maple, the software will check the imported data for inconsistencies. Detected inconsistencies will be listed in the *Import Field Data Validity Report*. Some of these inconsistencies may be errors that must be corrected before student sampling can proceed, while others may be warnings of missing data that can be completed later by Test Administrators on the tracking forms (section 5.5).

> ! Data will only be transferred into the ACER Maple database when all errors have been corrected.
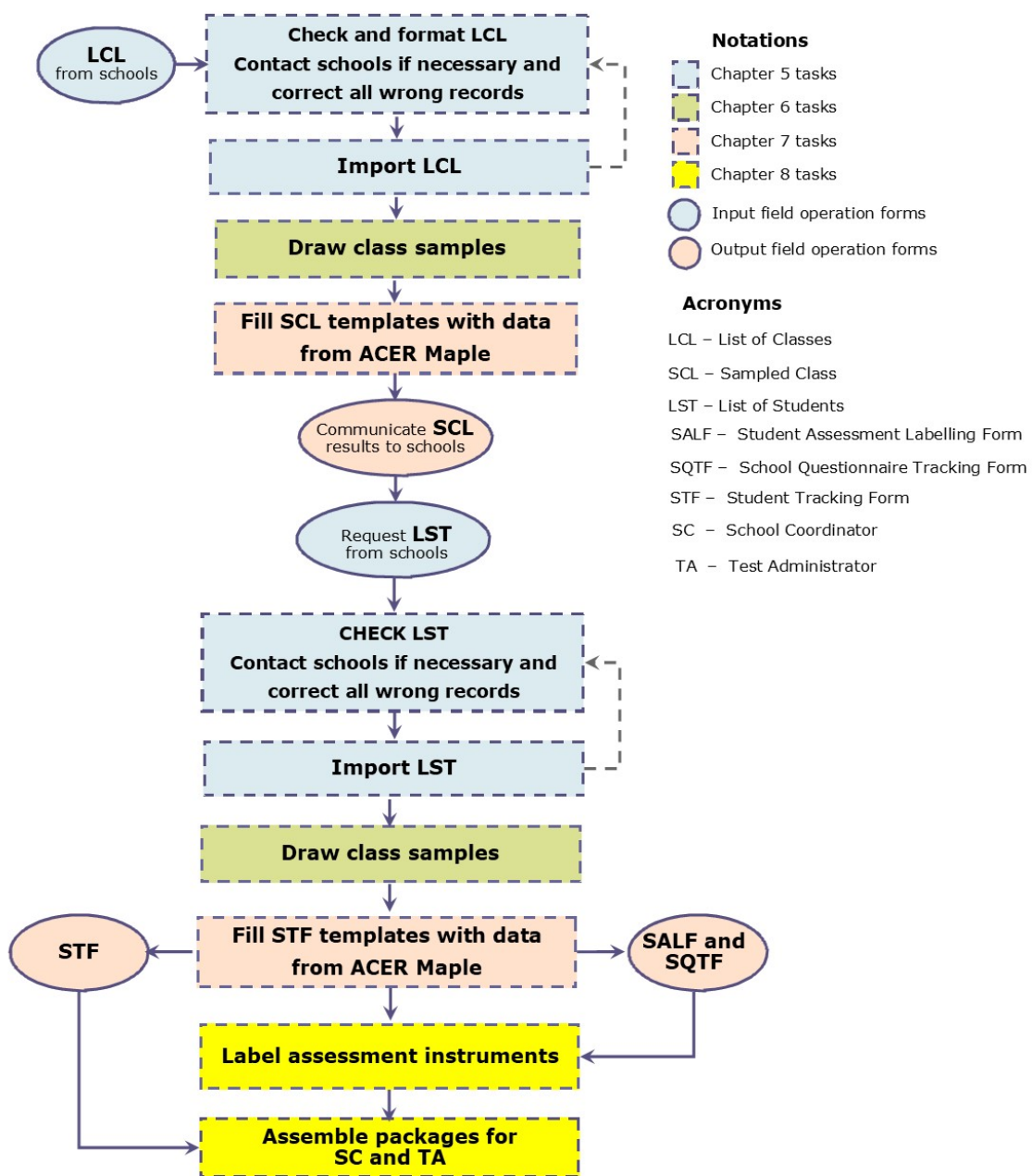
Figure 57: Sampling logistics

5.2   Preparing LCL data for import

The List of Classes (LCL) is crucial for sampling in the AMPL project because only students in sampled class(es) are eligible for assessment. The data stored in these lists are used in student tracking forms and to validate sampling data.

> To make sampling efficient, the data for all LCLs must be checked and corrected **<u>before</u>** being imported into ACER Maple.

> It is important for the data manager to export the LCL codebook (see section 3.3) and make it available to all data administrators, before the data administrators begin preparing the LCL data for import.

It is preferable for the LCL data to be prepared and imported one school at a time, as soon as it is received. The process for preparing a file for importing starts with establishing a file naming convention, as described in section 5.2.2. The remaining steps for preparing the file are outlined in section 5.3.2, and explained in detail in sections 5.2.3 - 5.2.11.

5.2.1   File naming conventions

Before any LCLs start arriving from schools, the data manager must establish a file naming convention and ensure that all data administrators adhere to it.

> All data administrators within your NC must use the same file naming convention.

- Each LCL file should be saved in Excel format in a designated location.
- Each LCL file must have in the file name 'LCL', a AMPL school number, any other information that identifies the school (e.g. the school name), and the date that list was prepared (e.g. LCL_121_Central school_AsReceived210502).
  - ▸ If an LCL has been received electronically, it should be saved according to the established file naming convention before any further preparation of the file begins.
  - ▸ If an LCL has been received in hard copy, it must be:
  1. checked, in hard copy, as explained in sections 5.2.3 - 5.2.5;
  2. corrected (if required), in hard copy, as explained in section 5.2.6; and then
  3. keyed into an LCL Excel template, then saved according to the established file naming convention before any further preparation continues (5.2.7-5.2.11).

5.2.2   List of Classes data preparation outline

The following 9 steps outlines how to prepare the List of Classes data:

1. Check grade level(s) and class names (section 5.2.3).
2. Check the number of classes in the *List of Classes* worksheet against the *Information* worksheet (section 5.2.4).
3. Check the number of students in the *List of Classes* worksheet (section 5.2.5).
4. Contact school if required (section 5.2.6).

5. Sort the LCL data (section 5.2.7).

6. Add the appropriate value in the 'AMPL School No.' (section 5.2.8).

7. Add appropriate values in the 'Line No.' column (section 5.2.9).

8. Ensure that the data adheres to the validation rules for each column (section 5.2.10).

9. Save the file (section 5.2.11).

5.2.3 Check grade level and class names

Check that the number in the **Grade Level** column matches the grade level assessed in your country (refer to Table 20).

> 🌍   **If in your NC two grade levels are assessed**, make sure that each list contains only one grade level. E.g., grade 4 classes must be listed separately from grade 6 classes.

Table 20: Grade levels assessed by AMPL countries

Country	Grade level assessed
Bhutan	6
India	3 and 5
Kenya	6
Lesotho	4 and 6
Zambia	3 and 7

In the **Class Name** column

- If grade level is not included in the class name, or class name is not provided[10], go to section 5.3.4.
- If grade level is included in the class name (e.g. 6a), highlight any class names with grade level that does not match the number in the **Grade Level** column or the grade level assessed in your country.

5.2.4 Check the number of classes

The number of classes in the *List of Classes* worksheet <u>must be the same</u> as the number provided in the *Information* worksheet.

Make a note if this is not the case.

5.2.5 Check the number of students

The number of students in the *List of Classes* worksheet for each class must be a reasonable number for your country. If it is too small or too large from your point of view, make a note

5.2.6 Contact school if required

After completing checks described in sections 5.2.3 - 5.2.5:

- if there are no highlighted cases or additional notes that were made during checking, go to section 5.2.7.

---

[10] Class names and students name are optional. They are provided for convenience of administration.

OTHERWISE

- contact the school to verify the data for any highlighted cases or additional notes that were made during checking.

Possible queries for the school and the actions required to correct the data are listed in Table 21.

Table 21: Possible queries regarding LCL checks, and actions required

Possible query	Actions required
Query any class names with incorrect grade levels	- If any classes are in the correct grade level, but there was an error in the class name, correct the class name in the LCL. OR - If any classes listed are in the wrong grade level, ask the School Coordinator to send a corrected list and destroy the incorrect one.
Query any suspicious or missing student numbers	- If the School Coordinator provides updated data, update the records in the LCL. OR - If the data is not available, enter missing values as indicated in the codebook and ask the School Coordinator to provide the data later for sampled class(es)
Query any instance where the number of classes in the *List of Classes* worksheet is not the same as the number provided in the *Information* worksheet	- If the number provided in the *Information* worksheet is incorrect, correct the number in the worksheet. OR - If the number of classes in the *List of Classes* worksheet is incorrect, ask the School Coordinator to send a corrected list and destroy the incorrect one.

After enquiries are made:

- If all corrections have been made in the existing LCL, save a new version of the LCL with "_Updated" added to the end of the file name. Ensure that the new file is saved in a suitable location.
- If the School Coordinator is required to send an updated List of Classes, delete the existing one. When the updated LCL has been received, it will need to be checked again.

5.2.7   Sort LCL data

If an "_Updated" LCL has been saved, it will need to be checked to ensure that the listed records are ordered correctly before ACER Maple can import it. Open the updated LCL in Microsoft® Excel to check:

- If the records on the LCL are ordered alphabetically according to class name (e.g. 6a is listed first, then 6b,…).

OTHERWISE

- Sort the LCL data alphabetically by Class Name as follows:

1. If the file has opened in Microsoft® Excel in Protected View, click the **Enable Editing** button at the top of the screen.

2. Highlight row 1 and ALL class records in the List of Classes worksheet.

3. Click **DATA**. The DATA ribbon will be displayed at the top of the Excel screen.

4. Click **Sort**. The *Sort* window will appear (Figure 60).

5. Click 'My data has h̲eaders' in the top right-hand corner of the *Sort* window (see Figure 60).

6.   In the *Sort by* drop-down list, click Class Name.

7.   Click **OK**. Microsoft® Excel will sort the data.

Figure 58: Sorting LCL –[add a screenshot]-

8.   Check that the LCL has been sorted as specified:

▸   If yes, save a copy of the file with extension "_Sorted"

▸   Otherwise, close the file without saving, reopen it, and repeat steps 1 to 7 to sort again.

5.2.8   Add the value in the 'AMPL School No.' column

In the 'AMPL School No.' column, copy over the value from the 'AMPL School No' cell in the *Information* worksheet. Make sure that the number is the same for all records in the school.

5.2.9   Add values in the 'Line No.' column

To add 'Line No.' values in the 'Line No.' column:

•   In the first row, enter '00001. Remember to use a single quotation mark to include leading zeroes.

•   In the second row, enter '00002.

•   Select the two cells, then position the cursor at the bottom right of the selection, and then click to expand the black square down to the row of the last student in the list (Figure 61). This will populate the line numbers "00001, 00002, 00003, …" for the school.
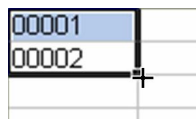
Figure 59: Populating LCL 'Line No.' column

5.2.10   Ensure the data matches the validation rules in each column

Compare the prepared LCL data against the exported codebook and format files for the LCL and verify that the data matches the validation rules in each column, and the structure of the data. See section 3.3 for instructions on exporting codebook and format files and how to interpret codebooks.

As an example of a validation check consider the following: The 'Month of Birth' column requires a 2-digit number (as specified in the validation rule for this column in the codebook). This means that if March is entered as '3' or 'March', it must be changed to '03' to avoid an error when importing the data into ACER Maple. To include a leading 0, key in a single quotation mark (') in front of '03'.

> Note that a single quotation mark (') is necessary to include leading zeros in columns 'Line No.' and 'Month of Birth'.

To ensure correct structure

•   Open LCL format

•   Make sure that all columns are in the right order

•   Copy the first row from the format and paste it in row 2 of the LCL data worksheet.

Table 22 shows LCL data ready to be imported into ACER Maple.

Table 22: Example LCL data in Excel format ready to be imported into ACER Maple

1	AMPLSchool No.	Line No.	Grade Level	Class name	No. of Students	Comments
2	1001	00001	6	6A	30	
3	1001	00002	6	6B	25	
4	1001	00003	6	6C	32	
5						

> **Note to countries assessing more than one grade level.** Each grade level will need a separate LCL file for import.

5.2.11 Save the file

Save a new version of the LCL with "_For_Import" added to the end of the file name. Ensure that the new file is saved in a suitable location.

5.3 Preparing LST data for import

The List of Students (LST) is crucial for student sampling. The data stored in these lists are used in student tracking forms and to validate sampling data.

> To make sampling efficient, the data for all LSTs must be checked and corrected **before** being imported into ACER Maple.

> It is important for the data manager to export the LST codebook (see section 3.3) and make it available to all data administrators, before the data administrators need to begin preparing the LST data for import.

It is preferable for the LST data to be prepared and imported one school at a time, as soon as it is received. The process for preparing a file for importing starts with establishing a file naming convention, as described in section 5.3.1. The remaining steps for preparing the file are outlined in section 5.3.2, and explained in detail in sections 5.3.3 - 5.3.11.

5.3.1 File naming conventions

Before any LSTs start arriving from schools, the data manager must establish a file naming convention and ensure that all data administrators adhere to it.

- Each LST file should be saved in Excel format in a designated location.
- Each LST file must have in the file name 'LST', a AMPL school number, any other information that identifies the school (e.g. the school name), and the date that list was prepared (e.g. LST_121_Central school_AsReceived210502).

> All data administrators within your NC must use the same file naming convention.

- If an LST has been received electronically, it should be saved according to the established file naming convention before any further preparation of the file begins (section 5.3.2).

- If an LST has been received in hard copy, it must be:

    1. checked, in hard copy, as explained in sections 5.3.3- 5.3.5;

    2. corrected (if required), in hard copy, as explained in section 5.3.6; and then

    3. keyed into an LST Excel template, then saved according to the established file naming convention before any further preparation continues (5.3.7-5.3.11).

5.3.2   List of Students data preparation outline

To prepare the List of Students data:

1. Check class names (section 5.3.3).

2. Check gender and age distributions (section 5.3.4).

3. Check the number of students in the *List of Students* worksheet against the *Information* worksheet (section 5.3.5).

4. Contact school if required (section 5.3.6).

5. Sort the LST data (section 5.3.7).

6. Add the appropriate value in the 'AMPL School No.' (section 5.3.8).

7. Add appropriate values in the 'Line No.' column (section 5.3.9).

8. Ensure that the data adheres to the validation rules for each column (section 5.3.10).

9. Save the file (section 5.3.11).

5.3.3   Check class names

- If grade level is not included in the class name, or class name is not provided[11], go to section 5.3.4.
- If grade level is included in the class name (e.g. 6a):

    1. check that the grade level indicated in the class name corresponds to the grade level assessed in your country (refer to Table 20 on page 76).

    2. highlight any class names with an incorrect grade level.

5.3.4   Check the gender and age distributions

The gender and age distributions must match the school's demographic background (e.g. a single gender school cannot have students of both genders, or a student born in 2015 cannot be in grade 6).

Highlight any records in the List of Students that have incorrect, suspicious or missing demographics data. Some examples of such records are:

- a student who is the only female in the List of Students;
- year of birth that is outside the usual range for students from the grade level being assessed
- any student with missing gender or date of birth data.

5.3.5   Check the number of students

The number of students in the *List of Students* worksheet <u>must be the same</u> as the number provided in the *Information* worksheet.

---

[11] Class names and students name are optional. They are provided for convenience of administration.

Make a note if this is not the case.

5.3.6   Contact school if required

After completing checks described in sections 5.3.3- 5.3.5:

- if there are no highlighted cases or additional notes that were made during checking, go to section 5.3.7.

   OTHERWISE

- contact the school to verify the data for any highlighted cases or additional notes that were made during checking.

Possible queries for the school and the actions required to correct the data are listed in Table 23.

Table 23: Possible queries regarding LST checks and actions required

Possible query	Actions required
Query any class names with incorrect grade levels	• If any students are in the correct grade level, but there was an error in the class name, correct the class name in the LST. OR • If any students listed are in the wrong grade level, ask the School Coordinator to send a corrected list and destroy the incorrect one.
Query any suspicious or missing demographics data[12]	• If the School Coordinator provides updated data, update the records in the LST. OR • If the data is not available, enter missing values as indicated in the codebook and ask the School Coordinator to provide the data later in the STF for sampled students
Query any instance where the number of students in the *List of Students* worksheet is not the same as the number provided in the *Information* worksheet	• If the number provided in the *Information* worksheet is incorrect, correct the number in the worksheet. OR • If the number of students in the *List of Students* worksheet is incorrect, ask the School Coordinator to send a corrected list and destroy the incorrect one.

After enquiries are made:

- If all corrections have been made in the existing LST, save a new version of the LST with "_Updated" added to the end of the file name. Ensure that the new file is saved in a suitable location.
- If the School Coordinator is required to send an updated List of Students, delete the existing one. When the updated LST has been received, it will need to be checked again.

5.3.7   Sort LST data

If an "_Updated" LST has been saved, it will need to be checked to ensure that the listed records are ordered correctly before ACER Maple can import it. Open the updated LST in Microsoft® Excel to check:

---

[12] Date of birth and gender **must** be entered into the Excel spreadsheet. In rare cases when actual date of birth or gender are not available at the time of sampling, missing values must be entered. See Appendix 3 if 'blind' sampling is required.

- If the records on the LST are ordered alphabetically according to class name (e.g. all students from 6a are listed first, then all students from 6b,…) AND student name <u>within each class</u>, go to section 5.3.8.

     OTHERWISE

- Sort the LST data alphabetically by Class Name and Student name (within Class name) as follows:

    1. If the file has opened in Microsoft® Excel in Protected View, click the **Enable Editing** button at the top of the screen.

    2. Highlight row 2 and ALL student records in the List of Students worksheet.

    3. Click **DATA**. The DATA ribbon will be displayed at the top of the Excel screen.

    4. Click **Sort**. The *Sort* window will appear (Figure 60).

    5. Click 'My data has <u>h</u>eaders' in the top right-hand corner of the *Sort* window (see Figure 60).

    6. In the *Sort by* drop-down list, click Class Name.

    7. Click **Add Level.** A new '*Then by'* drop-down list will appear.

    8. In the '*Then by'* drop-down list, click Student Name.

    9. Click **OK**. Microsoft® Excel will sort the data.
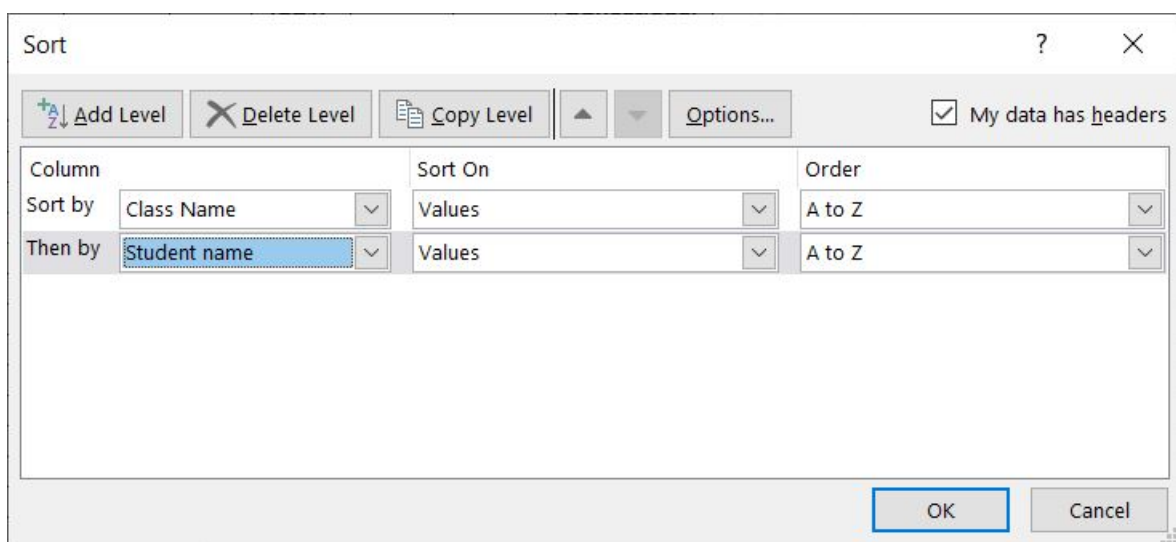
Figure 60: Sorting LST

10. Check that the LST has been sorted as specified:

   ▸ If yes, save a copy of the file with extension "_Sorted"
   ▸ Otherwise, close the file without saving, reopen it, and repeat steps 1 to 10 to sort again.

5.3.8   Add the value in the 'AMPL School No.' column

In the 'AMPL School No.' column, copy over the value from the 'AMPL School No' cell in the *Information* worksheet. Make sure that the number is the same for all records in the school.

5.3.9   Add values in the 'Line No.' column

To add 'Line No.' values in the 'Line No.' column:

- In the first row, enter '00001. Remember to use a single quotation mark to include leading zeroes.
- In the second row, enter '00002.

- Select the two cells, then position the cursor at the bottom right of the selection, and then click to expand the black square down to the row of the last student in the list (Figure 61). This will populate the line numbers "00001, 00002, 00003, …" for the school.
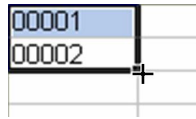
Figure 61: Populating LST 'Line No.' column

5.3.10 Ensure the data matches the validation rules in each column

Compare the prepared LST data against the exported codebook and format files for the LST and verify that the data matches the validation rules in each column, and the structure of the data. See section 3.3 for instructions on exporting codebook and format files and how to interpret codebooks.

As an example of a validation check consider the following: The 'Month of Birth' column requires a 2-digit number (as specified in the validation rule for this column in the codebook). This means that if March is entered as '3' or 'March', it must be changed to '03' to avoid an error when importing the data into ACER Maple. To include a leading 0, key in a single quotation mark (') in front of '03'.

> Note that a single quotation mark (') is necessary to include leading zeros in columns 'Line No.' and 'Month of Birth'.

To ensure correct structure
- Open LST format.
- Make sure that all columns are in the right order.
- Copy the first row from the format and paste it in row 2 of the LST data worksheet.

Table 24 shows LST data ready to be imported into ACER Maple.

Table 24: Example LST data in Excel format ready to be imported into ACER Maple

1		xxxxx	\<Name\> \<Surname\>	F=1; M=2	MM	YYYY		Class		
2	AMPL School No.	Line No.	Student Name	Gender	Month of Birth	Year of Birth	SEN	Grade Level	Class Name	Class ID
3	1001	00001	Xab Yac	1	01	2010	0	6	6C	3
4	1001	00002	Xac Yad	1	11	2011	0	6	6C	3
5	1001	00003	Xaf Yag	2	09	2010	0	6	6C	3
6	1001	00004	Xad Yag	1	08	2010	0	6	6C	3
7	1001	00005	Xaj Yak	2	05	2010	1	6	6C	3
8	1001	00006	Xab Yac	1	03	2010	0	6	6C	3
10	1001	00007	Xb Yacd	2	12	2010	0	6	6C	3
11	1001	00008	Xab Yah	2	11	2010	0	6	6C	3
12	1001	00009	Xak Yalk	1	03	2010	1	6	6C	3
13	1001	00010	Xkl Yvb	2	05	2010	0	6	6C	3
14	1001	00011	Xab Yfg	1	06	2010	0	6	6C	3
15	1001	00012	Xab Ykm	2	02	2010	0	6	6C	3
16	1001	00013	Xed Ygbn	2	04	2009	0	6	6C	3
17	1001	00014	Xsd Ymnv	1	10	2010	0	6	6C	3
18	1001	00015	Xcv Ywdj	2	07	2010	0	6	6C	3
19	1001	00016	Xth Ysdf	1	04	2010	2	6	6C	3
20	1001	00017	Xwe Ywsc	1	08	2010	0	6	6C	3
21	1001	00018	Xab Yuhj	2	03	2010	0	6	6C	3
22	1001	00019	Xerb Yjkl	1	01	2010	3	6	6C	3

5.3.11 Save the file

Save a new version of the LST with "_For_Import" added to the end of the file name. Ensure that the new file is saved in a suitable location.

5.4   Importing Data for Sampling

> ⚠️ A data administrator login must be used for the following function.

To import LCL or LST data into ACER Maple:

1. On the main screen select **Import > Field data** and then click **Activate**. The *Import field data* screen will appear (Figure 62).

2. In the **Available Templates** drop-down list on the left-hand side of the screen select:

    ▸ LCL if you are importing List of Classes;

    ▸ LCL if you are importing List of Classes.

3. In the **Selected Template Preview** use the horizontal scrollbar at the bottom of the previewed list to view all the columns in the template.

4. In the **Options** list ensure that 'Append to existing data' is selected.

Figure 62: *Import field data* screen-[<mark>Update the screen</mark>]-

5. Click **Browse…** and manually enter or navigate to the location of the Excel file containing the LST data to be imported.

> ⚠️ The Excel file selected for import **must** match the template selected in the **Available Templates** drop-down list.

The Excel file will be uploaded into ACER Maple and its file name will appear in a tab beside the **Browse**… button.

In the **Uploaded File Preview** a preview of the uploaded file will appear (Figure 63). Only the first 15 rows of data will be displayed. The total number of rows and columns in the uploaded file will be displayed beneath the preview.

Figure 63: Uploaded File Preview for a List of Students (LST) -[Update the screen]-

6.   Click **Import**. ACER Maple then performs a number of validity checks on the data in the selected Excel file.

The possible outcomes and required actions are described in Table 25 for the LCL and Table 26 for the LST.

Table 25: Possible outcomes when importing List of Classes data

Outcome	Next steps
LCL data has been validated, with no discrepancies, and is ready to be imported into the ACER Maple database. Pop-up message appears saying the data has been validated with no errors or warnings.	1. Click **Continue**. 2. Another pop-up message will appear listing the number of records updated. Click **Dismiss**. 3. Import LCL data from another Excel file.
LCL data contains some discrepancies that should be checked before importing (warnings). Pop-up message appears warning that there are discrepancies, but the data can be imported, and prompts you to save or download the report. *Import Field Data Validity Report* is available for download.	1. Click **Download Validity Report**, save the file in an appropriate location and open it. 2. Refer to section 5.5 to check the records that appear in the report. 3. If any corrections are required, click **Cancel** to dismiss the pop-up message, make the required corrections in the Excel file and attempt to import the LCL data again. 4. If corrections are not required, click **Continue** to import the data. Another pop-up message will appear listing the number of records that have been imported. Click **Dismiss**. 5. Explanations must be entered in ACER Maple before data can be submitted.
LCL data contains some discrepancies that prevent the data from being importing (errors). Pop-up message appears warning that there are discrepancies, the data cannot be imported, and prompts you to save or download the report. *Import Field Data Validity Report* is available for download.	1. Click **Download Validity Report**, save the file in an appropriate location. Click Cancel to close the pop-up message. 2. Manually enter or navigate to the location of the saved report and open it. 3. Refer to section 5.5 to check the records that appear in the report. 4. Make the required corrections in the Excel file and attempt to import the LCL data again.

Table 26: Possible outcomes when importing List of Student data

Outcome	Next steps
LST data has been validated, with no discrepancies, and is ready to be imported into the ACER Maple database. Pop-up message appears saying the data has been validated with no errors or warnings.	1. Click **Continue**. 2. Another pop-up message will appear listing the number of records updated. Click **Dismiss**. 3. Import LST data from another Excel file. OR Proceed to sample students for the imported/updated schools (Chapter 6).
LST data contains some discrepancies that should be checked before importing (warnings). Pop-up message appears warning that there are discrepancies but the data can be imported, and prompts you to save or download the report. *Import Field Data Validity Report* is available for download.	1. Click **Download Validity Report**, save the file in an appropriate location and open it. 2. Refer to section 5.5 to check the records that appear in the report. 3. If any corrections are required, click **Cancel** to dismiss the pop-up message, make the required corrections in the Excel file and attempt to import the LST data again. 4. If corrections are not required, click **Continue** to import the data. Another pop-up message will appear listing the number of records that have been imported. Click **Dismiss**. 5. Explanations must be entered in ACER Maple before data can be submitted.
LST data contains some discrepancies that prevent the data from being importing (errors). Pop-up message appears warning that there are discrepancies, the data cannot be imported, and prompts you to save or download the report. *Import Field Data Validity Report* is available for download.	1. Click **Download Validity Report**, save the file in an appropriate location. Click Cancel to close the pop-up message. 2. Manually enter or navigate to the location of the saved report and open it. 3. Refer to section 5.5 to check the records that appear in the report. 4. Make the required corrections in the Excel file and attempt to import the LST data again.

5.5   Import Field Data Validity Report

If you attempt to import List of Student data that contains errors and/or missing data, ACER Maple will produce an *Import Field Data Validity Report* (in Excel format) that contains information about these issues. Before you try to resolve them, make sure you have your *List of Sampled Schools* (LSS) handy.

> The *Import Field Data Validity Report* can contain multiple worksheets. Make sure you have checked the records in **all** worksheets in the report.

5.5.1   Errors in List of Classes data

Table 27 (page 90) lists errors that may appear in particular Error worksheets of the *Import Field Data Validity Report* when an LCL is imported. Table 27 also explains how these errors can be resolved. Most of the actions require updating the List of Classes Excel file.

A file import error may also occur if the file you are attempting to import is not an Excel spreadsheet, or if no file was selected to import. In either case, locate the correct file and then attempt to import the LCL data again.

After all corrections have been made in the LCL Excel file, attempt to import the List of Classes data again. As long as errors exist within the LCL file for a particular school, you will not be able to import the LCL data. Class sampling for this school cannot proceed until the LCL has been imported successfully.

If the situation arises where a school is not responding to queries, and you need to proceed with sampling before all errors have been corrected, you can replace any incorrect data with the appropriate missing code(s) (refer to the LCL codebook to find the correct missing codes for each variable). You can then proceed with sampling, and the missing codes will appear in the populated SCL Excel files as blank cells. You must then ensure that the SC updates the blank cells with the correct information before you proceed with student sampling. The updated data should be entered into ACER Maple using **Update tracking data > Field Operation Forms** (see Chapter 9) after the assessment.

5.5.2   Warnings in List of Classes data

Table 28 (page 91) lists discrepancies that may appear in Warning worksheets of the *Import Field Data Validity Report* when an LCL is imported and explains how they can be resolved.

All discrepancies in Warning worksheets are related to missing codes in the data. It is always preferable to have non-missing data for number of students in each class before LCL data is imported. However, as described above, a situation may arise where a school is not responding to queries, therefore the missing codes are allowed. Sampling can then proceed, and the missing codes will appear in the populated SCL Excel files as blank cells. The SC must update the blank cells with the correct information before you proceed with student sampling.

Table 27: Import Field Data Validity Report for class lists: Errors worksheets – Possible warnings and their resolutions

Description	Error message in report	How to resolve	Action required
Incorrect columns worksheet			
Excel file corresponds to a different template. OR Excel file is missing one or more columns. OR Excel file has one or more extra columns. OR Excel file has one or more columns with incorrect names.	*Incorrect columns: Missing – <Column Name>, Extra – <Column Name>*	• Check that you are selecting the correct List of Students Excel file to import and the correct template in ACER Maple.	• Select the correct LCL Excel file to import or select the correct template in ACER Maple. OR • Add all missing columns OR • Delete all extra columns OR • Correct column names.
Import duplication worksheet			
Data has already been imported for the same AMPL School No.	*Data for [AMPL School No.] 'X' already imported*	• Check the AMPL School Numbers in the LCL Excel file.	• Correct AMPL School No. in the LCL Excel file. OR • If the current AMPL School No. is correct, contact Clare Ozolins at Clare.Ozolins@acer.org to discuss your options.
One or more rows contain a AMPL School No. and Line No. combination that has already been imported.	*Data for [AMPL School No.] and [Line No.] already exists*	• Check both AMPL School No. and Line No. in the LCL Excel file.	• Correct AMPL School No. and/or Line No. in the LCL Excel file.
Record duplication worksheet			
One or more rows contain a AMPL School No. and Line No. combination that has already been imported.	*Confidential data for [AMPL School No.] and [Line No.] already exists*	• Check both AMPL School No. and Line No. in the LCL Excel file.	• Correct AMPL School No. and/or Line No. in the LCL Excel file.

Description	Error message in report	How to resolve	Action required
Key violations worksheet			
There are one or more illegitimate AMPL School Numbers.	*[AMPL School No.] is illegitimate*	• Check the LSS– only the AMPL School Numbers provided there are legitimate.	• Correct all AMPL School No. in the LCL Excel file.
There are one or more missing values or empty cells for AMPL School Numbers.	*[AMPL School No.] is missing*	• Check AMPL School No. for the specified rows in the LCL Excel file.	• Add correct AMPL School No. from the LSS to the LCL Excel file.
Input line numbers are not sequential within a school. OR There are duplicate input line numbers within a school.	*[Line No.] is not sequential*	• Check Line No. for the specified rows in the LCL Excel file.	• Correct all Line No. in the LCL Excel file.
Input line numbers do not begin at 00001 for a school.	*[Line No.] does not begin at 00001*	• Check Line No. for the specified rows in the LCL Excel file.	• Correct all Line No. in the LCL Excel file.
Validation rules worksheet			
One or more records contain one or more values that violate variable validation rules.	Description of validation rule violation(s)	• Check the specified values against the List of Classes codebook for the specified rows in the LCL Excel file.	• Correct all invalid values in the LCL Excel file.

Table 28: Import Field Data Validity Report for class lists: Warning worksheets – Possible warnings and their resolutions

Description	Warning message in report	How to resolve	Action required
LCL missing value(s) worksheet			
There are one or more missing values in a specific column.	*Missing value(s) in <Column Name>*	• Check the values in that column in the LCL Excel file. • Contact the school to get the information.	• Update the LCL Excel file if it has not been imported yet. OTHERWISE • Make updates in the SCL form after sampling.

5.5.3   Errors in List of Students data

Table 29 (page 93) lists errors that may appear in particular Error worksheets of the *Import Field Data Validity Report* when an LST is imported. Table 29 also explains how these errors can be resolved. Most of the actions require updating the List of Students Excel file.

A file import error may also occur if the file you are attempting to import is not an Excel spreadsheet, or if no file was selected to import. In either case, locate the correct file and then attempt to import the LST data again.

After all corrections have been made in the LST Excel file, attempt to import the List of Students data again. As long as errors exist within the LST for a particular school, you will not be able to import the LST data. Student sampling for this school cannot proceed until the LST has been imported successfully.

If the situation arises where a school is not responding to queries, and you need to proceed with sampling before all errors have been corrected, you can replace any incorrect data with the appropriate missing code(s) (refer to the LST codebook to find the correct missing codes for each variable). You can then proceed with sampling, and the missing codes will appear in the populated STF Excel files as blank cells. You must then ensure that the SC/TA updates the blank cells with the correct information on or before the day of assessment. The updated data should be entered into ACER Maple using **Update tracking data > Field Operation Forms** (see Chapter 9) after the assessment.

5.5.4   Warnings in List of Students data

Table 30 (page 94) lists discrepancies that may appear in Warning worksheets of the *Import Field Data Validity Report* when an LST is imported, and explains how they can be resolved.

All discrepancies in Warning worksheets are related to missing codes in the data. It is always preferable to have non-missing data for gender or date of birth before LST data is imported. However, as described above, a situation may arise where a school is not responding to queries, therefore the missing codes are allowed. Sampling can then proceed, and the missing codes will appear in the populated STF Excel files as blank cells. The SC/TA must update the blank cells with the correct information on or before the day of assessment.

Table 29: Import Field Data Validity Report for List of Students: Error worksheets – Possible errors and their resolutions (all sampling options)

Description	Error message in report	How to resolve	Action required
Incorrect columns worksheet			
Excel file corresponds to a different template. OR Excel file is missing one or more columns. OR Excel file has one or more extra columns. OR Excel file has one or more columns with incorrect names.	*Incorrect columns: Missing – <Column Name>, Extra – <Column Name>*	• Check that you are selecting the correct List of Students Excel file to import and the correct template in ACER Maple.	• Select the correct LST Excel file to import or select the correct template in ACER Maple. OR • Add all missing columns OR • Delete all extra columns OR • Correct column names.
Import duplication worksheet			
Data has already been imported for the same AMPL School No.	*Data for [AMPL School No.] 'X' already imported*	• Check the AMPL School Numbers in the LST Excel file.	• Correct AMPL School No. in the LST Excel file. OR • If the current AMPL School No. is correct, contact Clare Ozolins at Clare.Ozolins@acer.org to discuss your options.
One or more rows contain a AMPL School No. and Line No. combination that has already been imported.	*Data for [AMPL School No.] **and** [Line No.] already exists*	• Check both AMPL School No. and Line No. in the LST Excel file.	• Correct AMPL School No. and/or Line No. in the LST Excel file.
Record duplication worksheet			
One or more rows contain a AMPL School No. and Line No. combination that has already been imported.	*Confidential data for [AMPL School No.] **and** [Line No.] already exists*	• Check both AMPL School No. and Line No. in the LST Excel file.	• Correct AMPL School No. and/or Line No. in the LST Excel file.

Description	Error message in report	How to resolve	Action required
Key violations worksheet			
There are one or more illegitimate AMPL School Numbers.	*[AMPL School No.] is illegitimate*	• Check the LSS– only the AMPL School Numbers provided there are legitimate.	• Correct all AMPL School No. in the LST Excel file.
There are one or more missing values or empty cells for AMPL School Numbers.	*[AMPL School No.] is missing*	• Check AMPL School No. for the specified rows in the LST Excel file.	• Add correct AMPL School No. from the LSS to the LST Excel file.
Input line numbers are not sequential within a school. OR There are duplicate input line numbers within a school.	*[Line No.] is not sequential*	• Check Line No. for the specified rows in the LST Excel file.	• Correct all Line No. in the LST Excel file.
Input line numbers do not begin at 00001 for a school.	*[Line No.] does not begin at 00001*	• Check Line No. for the specified rows in the LST Excel file.	• Correct all Line No. in the LST Excel file.
Validation rules worksheet			
One or more records contain one or more values that violate variable validation rules.	Description of validation rule violation(s)	• Check the specified values against the List of Students codebook for the specified rows in the LST Excel file.	• Correct all invalid values in the LST Excel file.

Table 30: Import Field Data Validity Report for student lists: Warning worksheets – Possible warnings and their resolutions

Description	Warning message in report	How to resolve	Action required
<LST> missing value(s) worksheet			
There are one or more missing values in a specific column.	*Missing value(s) in <Column Name>*	• Check the values in that column in the LST Excel file. • Contact the school to get the information.	• Update the LST Excel file if it has not been imported yet. OTHERWISE • Make updates in the tracking form after sampling.

5.6   Caution against Re-Importing List of Student Data

If students have not yet been sampled in a school, you can re-import the LST data using **Import > Field data** (as described in this section).

If students have already been sampled in a school and you need to update demographic data for any students, you **should not** re-import the LST data into ACER Maple using **Import > Field data**. Updates to demographic data for students that have already been sampled should be made using **Update tracking data > Field Operation Forms** (see Chapter 9) after the assessment.

If students have already been sampled in a school, the LST data should **only** be re-imported if the initial list was **seriously compromised**. For example:

- data for one school was uploaded for another school by accident; or
- a school sent an incomplete list of students (e.g. only students from one campus).

> **Do not** re-import LST data for a school which has already sampled students **unless** there is time to:
> 1. re-sample students; **and**
> 2. send the updated tracking forms to the school; **and**
> 3. you have agreed with ACER that you are permitted to do this.
>
> If the above three conditions are met, ensure that you **delete** all tracking forms produced from the incorrect List of Students **before** re-importing the list. You must also make sure that the School Coordinator has deleted the previously received tracking forms.
>
> If you found that students have been sampled from a seriously compromised List of Student **but** do not have time to re-sample and to send correct tracking forms to the school, contact Clare Ozolins at Clare.Ozolins@acer.org. Explain what was wrong with the initial List of Student and include the correct List of Students with your e-mail.

To re-import any LST data for a school which has already been imported into ACER Maple:

1. On the main screen select **Import** and then click **Activate**. The *Import field data* screen will appear (Figure 64).

Figure 64: *Import field data* **screen**

2. In the **Available Templates** drop-down list select the relevant template.

3. Click **Browse…** and manually enter or navigate to the location of the Excel file containing the LST data to be imported.

> ⚠️ The Excel file selected for re-importing **must** match the template selected in the **Available Templates** drop-down list.

4. In the **Options** list select 'Replace specific records'.

5. Click **Import**. ACER Maple will attempt to import the LST data from the selected Excel file, replacing the previously imported LST data for this school.

6. ACER Maple then performs a number of validity checks on the data in the selected Excel file. The possible outcomes and required actions are described in Table 31 on the following page.

Some warnings may not require any corrections in the data. It is also possible that after corrections have been made, some errors still remain. In this case, when you try to re-import the List of Student data, the validity report will be produced again.

Table 31: Scenarios when re-importing List of Student data for a school

Scenario	Message	Next steps
Students have not been sampled for this school, no errors or warnings.	*Data have been validated. No errors. No warnings.* *Please click **Continue**.*	• Click **Continue**.
Students have not been sampled for this school, errors or warnings.	*Data contains errors and cannot be imported into the ACER Maple database.* *Please download the validity report.*	1. Click **Download Validity Report**. 2. Follow the instructions in the relevant sub-sections of section 5.5 to address the errors and/or warnings in the *Import Field Data Validity Report*.
Students **have been sampled** for this school.	***AMPL School No. 'X'** has been already sampled.* *Have you discussed the issue with sampling contractor?* If **Yes**: *All data for **AMPL School No. 'X'** will be replaced.* *Have you backed up your data?*	• **Only** click **OK** if: ▸ you are sure there is **enough time** to re-sample students and send the updated tracking forms to the school; ▸ the old tracking forms are **deleted** by you and by the School Coordinator before you produce new tracking forms; and ▸ you have permission from ACER to do so. To obtain permission from ACER contact Clare Ozolins at Clare.Ozolins@acer.org, explaining what was wrong with the initial LST and attaching the correct LST to the message. OTHERWISE • If you do not have time to re-sample and to send the correct tracking forms to the school, or do not have permission from ACER, click **Cancel.**

6 SAMPLING

> A data administrator login must be used for the following function.

After an LST has been successfully imported into ACER Maple, the students for that school can be sampled.

To sample the students for a school, and allocate each student the appropriate instruments:

1. On the main screen select **Sample and allocate instruments > Sample and allocate** and then click **Activate**. The *Sample and allocate instruments* screen will appear (Figure 65).

Figure 65: *Sample and allocate instruments* screen-[replace]-

2. In the **Select Population Type** box select: '

   1. classes'.

   2. students'.

3. In the **Select Combined Option** box select the available option. The option will be:

   1'- if you are sampling classes; or

   <xxx>- a three-digit number designated to each entity on the LSS in the *Student combined option* column, if you are sampling students.

   You have to select the option even if there is only one.

4. In the **Select School Type** list keep '**Main**' selected (unless you need to sample a replacement school).

> **Do not select 'Already sampled' unless this has been agreed with ACER sampling team.**

5. Click **List Available Institutions to Sample**. In the **Available for Sampling** box the AMPL School Number of all schools which are available for sampling will be listed (Figure 66).

Figure 66: Schools available for sampling listed in the Available for Sampling box

6. In the **Available for Sampling** box select the AMPL School Numbers of all schools to be sampled. Use Shift and/or Ctrl to select multiple schools as required (Figure 67).

Figure 67: Selecting multiple schools in the Available for Sampling box

7. Click [→] to move these schools into the **Selected for Sampling** box (Figure 68)[13], the **Sample** button will appear.

Figure 68: Multiple schools moved to the Selected for Sampling box

8. Click **Sample**. ACER Maple will draw the sample and allocate instruments to the sampled students for the selected combined option in the selected schools.

During the sampling and instrument allocation process ACER Maple will perform some validity checks of the data. The possible outcomes and required actions are described in Table 32.

---

[13] To remove schools from the **Selected for Sampling** field select the MILO School Numbers in this field and then click [←] .

Table 32: Scenarios when using the *Sample and allocate* function

Outcome	Next steps
• Sampling and allocation successful, no discrepancies found. • Messages: '*The selected Institutions have been sampled*' AND '*Instruments have been allocated to the selected population in all selected institutions*'	1. Click **OK** for each message. 2. Proceed to populate tracking forms with data for these schools (Chapter 7). OR Complete sampling and allocation of instruments for another set of schools.
• Sampling successful but the data contains some discrepancies that should be checked (warnings). • Message: '*No allocation in background/initial data for this case*' The *Sampling Validity Report* is available for download.	1. Download the *Sampling Validity Report*. 2. Contact ACER Helpdesk at maplehelpdesk@acer.org; include your 3-letter NC code, a short description of the problem in the subject line. Attach report.

7 POPULATING SCL AND STF TEMPLATES WITH SAMPLING DATA

7.1   Populating SCL and STF templates with data from ACER Maple

> ⚠️ A data administrator login must be used for the following function.

After sampling the STF Excel templates need to be populated with sampled students' data.

To populate the STF templates with data:

1. On the main screen select **Export > Field data** and then click **Activate**. The *Export field data* screen will appear (Figure 69).

Figure 69: *Export field data* **screen**

2. In the **Select Population Type** box select:

    '**1. classes**', if populating SCL; or

    '**2. students**', if populating STF

3. In the **Select Combined Option** the select:

    1, if populating SCL; or

    <xxx>- a three-digit number designated to each entity on the LSS in the *Student combined option* column, if populating STF.

You have to select the option even if there is only one.

4. In the **Select Sampling Level** box select ‘Main Sample’.

5. Click **List Available Institutions to Export**.

6. In the **Available for Export** box the AMPL School Numbers of all schools whose STF is available to populate with data will be listed (Figure 70).

Figure 70: Schools available to populate tracking forms with data are listed in the Available for Export box-[update screenshot]-

7. In the **Available for Export** box select the AMPL School Numbers of all schools whose populated STF you wish to generate. Use Shift and/or Ctrl to select multiple schools as required (Figure 71).

Figure 71: Selecting multiple schools in the Available for Export box-[update screenshot]

8. Click ➔ to move these schools into the **Selected for Export** box (Figure 72). To remove schools from the **Selected for Export** box select their AMPL School Numbers and then click ←

Once schools have been added to the **Selected for Export** box the **Select excel template(s)** button will appear.
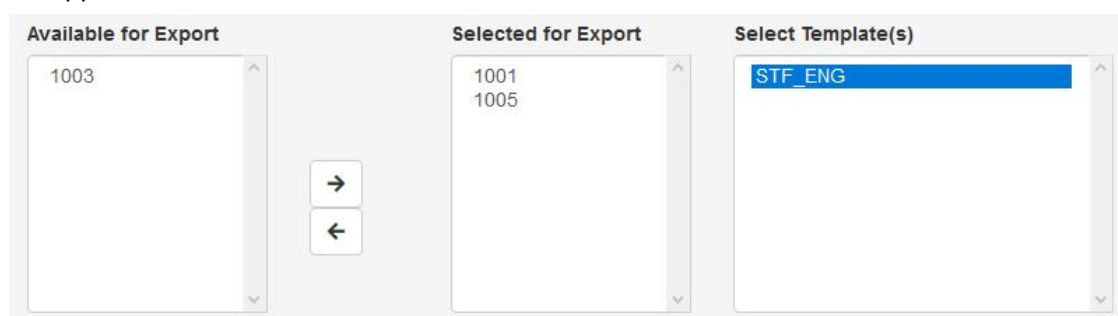
Figure 72: Multiple schools moved to the Selected for Export box[update screenshot]

9. In the **Select Template(s)** box select the template displayed on your screen.

> ⚠ A template must be selected in the **Select Template(s)** box although only one template is listed in this box for the AMPL NCs

10. Click **Select excel template(s)**. A pop-up window will appear asking you to select the corresponding Excel file template (Figure 73).

Figure 73: Pop-up to select the Excel file template [update when the training version is ready]-

11. Click **Browse** and manually enter or navigate to the location of the STF Excel template which matches the template selected in the **Select Template(s)** box.

> ⚠ The Excel template selected in the folder **must** match the template selected in the **Select Template(s)** box. If this is not the case, it will cause an error and the export will be terminated. See section 7.2 for details

The STF Excel template will be uploaded into ACER Maple and its file name will appear in a tab beside the **Browse** button (Figure 74).
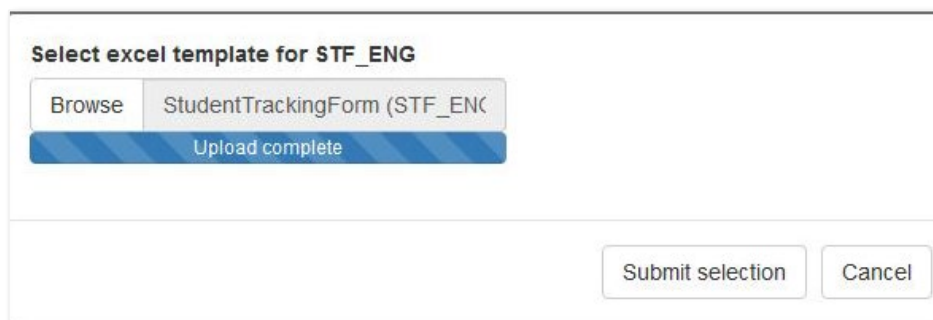
Figure 74: Tracking form Excel template uploaded into ACER Maple[update when the training version is ready]-

12. Click **Submit selection**. The **Export** button will appear at the bottom of the screen.

13. Click **Export**. ACER Maple will generate STFs populated with data for the selected sampled population, combined option, sampling level, schools and tracking form template. These populated tracking forms will be combined into one zip file which will be available for download (Figure 75).
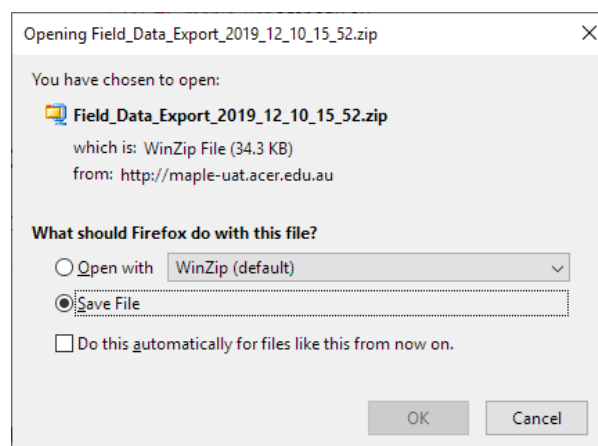
Figure 75: Downloaded zip file containing populated tracking forms

14. Select '**Save File**'(Figure 75).

15. Click **OK** and save the zip file in an appropriate location.

16. After the file has downloaded, unzip it.

> Each of the tracking forms will have the following file name: STF_<AMPL School No.>_<Date>.
>
> For example, the STF for school 1001 produced on the 30 May 2023 will have the file name STF_1001_2023_05_30. **Keep these names** for all tracking forms that have been produced by following steps 1- 16 in this section.

17. Populate row 2 of each of the tracking forms as follows:
    ‣ Copy the AMPL School No from the file name (1001 in the example).
    ‣ Open the file.
    ‣ Paste the AMPL School No in row 2 column D of the *Student Tracking Form* worksheet of the STF workbook.
    ‣ Copy the school name from the School Tracking Form provided to you by ACER and paste it under School Name in row 2 of the *Student Tracking Form* worksheet in the STF Excel file.
    ‣ Use your records to complete the School Coordinator and Test Administrator names.
    ‣ Provide dates for Day 1 and Day 2 of the assessment if they have already been agreed with the school.

    An example of an STF form ready for assessment administration is provided in Table 33, page 105.

18. Save the form using the following file name:
    STF_<LNG>_<AMPL School No.>_<Date>_<SchoolName>_TAReady. For example, the form provided in Table 33 can be saved as STF_ENG_1001_2023_05_30_CentralSchool_TAReady.

19. Send this form electronically to School Coordinator to check, or print it and send it by post.

> It is recommended that all tracking forms are sent in electronic format to the School Coordinator. If possible the Test Administrator can then use the electronic version during the assessment, as well as for updating data on the tracking forms. The forms, once they have been updated after the assessment, can then be returned in electronic format and no additional manual data entry will be required.

20. Print another copy of the form to include in the package for Test Administrator.

21. You are ready now to produce labels and package the field operation materials for the School Coordinator and Test Administrator (see Chapter 8)

Table 33: Example STF ready to be sent to Test Administrator and School coordinator for field operations.

	School Name	AMPL School No.		School Co-ordinator			Test Administrator		Session Date 1 (DD/MM)		Session date 2 (DD/MM)
1	School Name	AMPL School No.		School Co-ordinator			Test Administrator		Session Date 1 (DD/MM)		Session date 2 (DD/MM)
2	Central school	1001		Mr SC ABC			Ms TA XYZ		30/05		31/05
3		LST		F=1; M=2	MM	YYYY		Attendance		Class		
4	Student Name	Line No.	AMPL Participant ID	Test Form	Gender	Month of Birth	Year of Birth	SEN	Test	StQ	Participation	Grade Level	Class Name	Comments

	Student Name	Line No.	AMPL Participant ID	Test Form	Gender	Month of Birth	Year of Birth	SEN	Test	StQ	Participation	Grade Level	Class Name	Comments
5	Xab Yac	00001	96100106	5	1	01	2010	0	1	1	1	6	6C	
6	Xac Yad	00002	96100104	6	1	11	2011	0	0	1	0	6	6C	
7	Xaf Yag	00003	96100105	7	2	09	2010	0	1	0	0	6	6C	
8	Xad Yaf	00004	96100101	8	1	08	2010	0	0	0	1	6	6C	
9	Xaj Yak	00005	96100103	3	2	05	2010	1	1	1	0	6	6C	
10	Xab Yac	00006	96100108	4	1	03	2010	0	0	1	1	6	6C	
11	Xb Yacd	00007	96100102	5	2	12	2010	0	1	0	1	6	6C	
12	Xab Yah	00008	96100109	6	2	11	2010	0	1	1	1	6	6C	
13	Xak Yalk	00009	96100107	7	1	03	2010	1	0	0	0	6	6C	
14	Xkl Yvb	00010	96100110	8	2	05	2010	0	0	0	0	6	6C	
15	Xab Yfg	00011	96100115	3	1	06	2010	0	0	0	0	6	6C	
16	Xab Ykm	00012	96100120	4	2	02	2010	0	0	0	0	6	6C	
16	Xed Ygbn	00013	96100111	5	2	04	2009	0	0	0	0	6	6C	
18	Xsd Ymnv	00014	96100116	6	1	10	2010	0	0	0	0	6	6C	
19	Xcv Ywdj	00015	96100112	7	2	07	2010	0	0	0	0	6	6C	
20	Xth Ysdf	00016	96100117	8	1	04	2010	2	0	0	0	6	6C	
21	Xwe Ywsc	00017	96100113	3	1	08	2010	0	0	0	0	6	6C	
22	Xab Yuhj	00018	96100114	4	2	03	2010	0	0	0	0	6	6C	

7.2   Export Field Data Checks

When the **Export > Field data** function is used, ACER Maple checks that the tracking form template selected in ACER Maple matches the selected tracking form Excel template. Table 34 on the following page gives detailed information about the types of inconsistencies that may appear.

<Template selected on screen> in Table 34 refers to the template selected on the *Export field data* screen. Error messages appear in pop-up windows with the title: '*Problem with excel template for exporting <Template selected on screen>*'. For example, if the STF_ENG template was selected the title will be: '*Problem with excel template for exporting STF_ENG*'.

'*Row X*' in Table 34 refers to the row in the original unmodified template containing the heading titles (before any national adaptations were made). For example, in the STF_ENG template this is row 4. Therefore the message will display: '*Make sure that the column headers are in row number 4*'.

After all corrections have been made, attempt to generate the populated STF again.

Table 34: Messages when generating tracking forms populated with data

Description	Pop-up error message	How to resolve	Action required
Excel file is missing one or more columns. OR Excel file has one or more extra columns. OR Excel file has one or more columns with incorrect names. OR Excel file corresponds to a different template.	*Column headings in Excel file must correspond to the column names in <Template selected on screen>* *Make sure that the column headers are in the row number X*	• Check that you are selecting the correct Excel file to export and the correct template in ACER Maple. OTHERWISE • Carefully check all adaptations you made in the template of the Excel file and in ACER Maple when you modified the corresponding ACER Maple template.	• Select the correct Excel file to import or select the correct template in ACER Maple. OR • Add the missing columns or modify the template in ACER Maple as required. OR • Delete any extra columns or modify the template in ACER Maple as required. OR • Correct the column names or modify the template in ACER Maple as required. • Make sure that the column headings are in the correct row.
Excel file does not have any column headings in the row where the column headings are expected by ACER Maple.	*Column headings in the selected file are expected to be in row X* *This row in the selected excel file does not hold any data (empty cells)*	• Check that you are selecting the correct Excel file to export and the correct template in ACER Maple. OTHERWISE • Correct the template.	• Select the correct Excel file to import or select the correct template in ACER Maple. OR • Make sure that the column headings are in the correct row.
Some other file (not an Excel file) was selected by mistake to be populated with data.	*Please select an excel file (.xls, .xlsx) to upload*	• Select the correct file.	• Select the correct file.

8 LABELING AND PACKAGING ASSESSMENT MATERIALS

8.1   Using Mail Merge Function in Microsoft Word

The Mail Merge function in Microsoft® Word allows users to create documents or labels by populating them with data from a Microsoft® Excel worksheet.

The Mail Merge procedure for the AMPL is designed to produce the labels that will be attached to the cover of each of the assessment instruments.

- <u>Two</u> labels must be printed for <u>each student</u>:
  - ‣ One label for each test form assigned to students on the STF; and
  - ‣ One label for the Student Questionnaire.
- <u>One</u> label should be printed for <u>each School Questionnaire</u>. It is convenient to create a separate folder for labels, called *Labels* in the rest of this chapter.

To create labels, you will need to use the following functions:

1. The **Export List of Candidates** function in <u>ACER Maple</u> exports excel worksheets containing student and principal data required for labels. This function exports the list of all candidates that were sampled in the relevant administrative domain, i.e. in all schools associated with a given Admin ID account (section 8.2).

2. The **Mail Merge** function to create labels in a <u>Microsoft® Word</u> document (section 8.3).

The Word document can then be printed on the adhesive labels which will be attached to the printed assessment instruments.

8.2   Exporting labelling forms

After student tracking forms have been populated with sampled students' data, lists of student candidates can be exported and used to produce the required labels for each survey instrument.

> ⚠ A data manager or data administrator login must be used for the following function. Data manager can export data for all sampled candidates in the entity and data administrator can export data for all sampled candidates in their administrative domain

To export the required excel files from ACER Maple:

1. On the main screen select **Export > List of Candidates** and then click **Activate**. The *Export list of candidates* screen will appear (Figure 76).

Export list of candidates

Survey: South East Asia Primary Learning Metrics (SEAPLM)

Entity: ZedlandA (ZZA)

Admin level: 00

Export options:
◉ Data

File type:
◉ .xlsx

Select templates:

Click the bar to access the menu.

Type to search.

Summary	SCL			
	Template	Population type	Institutions with sampled records	Sampled records
1	Student Candidate List (SCL)	Students (2)	4	240

Showing 1 to 1 of 1 entries

Note: "*" indicates the template is for institutional level population type

Figure 76: Export list of candidates screen

2. Click the **Select Templates** field at the top of the screen. A drop-down list will appear.

3. Select the following templates:

   - AMPL Student Labelling Form (AMPL_SALF)

   - AMPL School Questionnaire Tracking Form (AMPL_SQTF)

4. Once template(s) have been selected, the **Export** button will appear at the right bottom corner of the *Export list of candidates* screen (Figure 77).

⬇ Export

Figure 77: The Export button at the bottom of the screen

5. Click **Export**. All selected files will be combined into one zip file which will be available for download (**Figure 78**).

Opening Candidates_Export_2021_09_02_19_29.zip   ✕

You have chosen to open:

🗔 **Candidates_Export_2021_09_02_19_29.zip**

which is: WinZip File (23.1 KB)

from: http://127.0.0.1

What should Firefox do with this file?

○ Open with   WinZip (default)   ⌄

◉ Save File

☐ Do this automatically for files like this from now on.

OK   Cancel

Figure 78: Save list of candidates

6. Select 'Save File' and click **OK** to save the zip file. Manually enter or navigate to an appropriate location to save the file.

7. After the zip file has been downloaded, unzip the Excel files into your *Labels* folder.

8. Open the exported AMPL_SALF data file saved in your *Labels* folder (see example in Table 35). Columns A-G contain information that will be mail-merged into labels.

Column G specifies to which test form the label must be assigned.

For example:

- the label with the student ID=286100103 should be assigned to Form 5 (highlighted in red in Table 35); while

- the label with the student ID=286100108 should be assigned to Booklet 6 (highlighted in green in Table 35),

Table 35: Example of SALF data in Excel format to be used for labelling student test booklets and questionnaires

	A	B	C	D	E	F	G
2	School Name	AMPL School No.	Grade Level	Class Name	Student Name	AMPL Participant ID	Test Form
3	Central school	1001	6	6C	Xab Yac	286100103	5
4	Central school	1001	6	6C	Xac Yad	286100108	6
5	Central school	1001	6	6C	Xaf Yag	286100101	7
6	Central school	1001	6	6C	Xad Yag	286100102	8
7	Central school	1001	6	6C	Xaj Yak	286100112	3
8	Central school	1001	6	6C	Xab Yac	286100104	4
10	Central school	1001	6	6C	Xb Yacd	286100113	5
11	Central school	1001	6	6C	Xab Yah	286100107	6
12	Central school	1001	6	6C	Xak Yalk	286100115	7
13	Central school	1001	6	6C	Xkl Yvb	286100109	8
14	Central school	1001	6	6C	Xab Yfg	286100108	3
15	Central school	1001	6	6C	Xab Ykm	286100116	4
16	Central school	1001	6	6C	Xed Ygbn	286100117	5
17	Central school	1001	6	6C	Xsd Ymnv	286100110	6
18	Central school	1001	6	6C	Xcv Ywdj	286100119	7
19	Central school	1001	6	6C	Xth Ysdf	286100120	8
20	Central school	1001	6	6C	Xwe Ywsc	286100111	3
21	Central school	1001	6	6C	Xab Yuhj	286100106	4
22	Central school	1001	6	6C	Xerb Yjkl	286100118	5

9. Open the exported AMPL_SQTF data file saved in your *Labels* folder (see example in Table 35):

   ‣ Columns A-C contain information that will be mail-merged into labels.

   ‣ Columns D and E will be filled after School Questionnaires are returned to the NC.

Table 36: Example of SQTF data in Excel format to be used for labelling School Questionnaires

	A	B	C	D	E
2	School Name	AMPL School No.	AMPL Participant ID	Participation Code	Comment
3	Central school	1001	386100101		
4	Central school	1002	286100201		
5	Central school	1004	286100104		

8.3   Creating Labels

When the Student Data Labels (i.e. SDL) Excel file(s) is ready, you need to prepare your adhesive labels for printing. You will need to know the supplier and product number of your labels. Once you have this information you will be able to:

1. Specify your label types and field titles in Word documents as explained in section 8.3.1.

2. Populate this Word document with data and print your labels as explained in section 8.3.2

8.3.1   Specifying label type

To specify label types:

1. Open a new Word document.

2. In the menu bar, click **Mailings** > **Start Mail Merge** > **Labels**. The "Label Options" dialog box will appear (Figure 79)
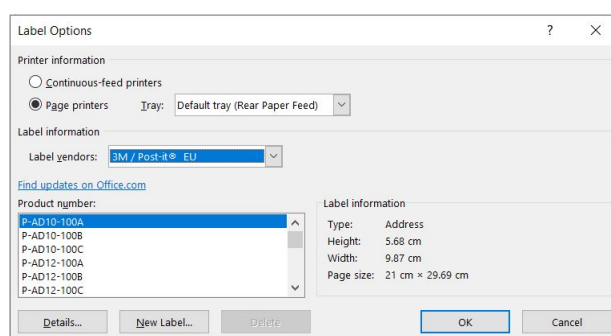
Figure 79: Mail Merge *Label Options* dialog box

3. Select your label supplier from the '**Label vendors**' drop-down list.

4. Select the product number from the "**Product number**" list[14].

5. The document should now display a table with an outline of the labels. If you don't see the outline of the labels, go to **Table Tools** > **Layout** >**View Gridlines**.

6. In the first label provide the following field titles:

> **School Name**
>
> **AMPL School No.**
>
> **Grade Level**
>
> **Class Name**
>
> **Student Name**
>
> **AMPL Participant ID**
>
> **Booklet No.**

7. Save your document in the *Labels* folder with the file name TFLB_type.

8. Repeat steps 1-5 to create labels for Student Questionnaires.

---

[14] If none of the options match your label package, choose "New Label", enter your label's information, and give it a name. Choose "OK" to add the new label to the "Product number" list.

9. In the first label provide the following field titles:

   School Name

   AMPL School No.

   Grade Level

   Class Name

   Student Name

   AMPL Participant ID

10. Save your document in the *Labels* folder with the file name STQLB_type.

11. Repeat steps 1-5 to create labels for School Questionnaires.

12. In the first label for School Questionnaires provide the following field titles:

    School Name

    AMPL School No.

    AMPL Principal ID

13. Save your document in the *Labels* folder with the file name SCQLB_type.

8.3.2   *Populating the STLB_type document with data and printing labels –[update for multiple schools]-*

To populate the STLB_type document with data and to print labels:

1. Open the STLB_type document you created in section 8.3.1.

2. Choose a school for which you need to create labels. Save a copy of the STLB_type document with the school name, AMPL School No. and date in the file name (e.g. STLB_<AMPL School No>_<School Name>_<Date>).-[scenarios for one/multiple/all schools]-

3. In the menu bar, click **Mailings > Select recipients > Use an existing list**.

4. Locate and open the Excel file containing the data for the school(s) for which you are creating labels (created in section 8.2).

5. In the first label in the STLB_<AMPL School No>_<School Name>_<Date> document, insert the following fields:

   ▸ Click **Mailings > Insert Merge Field > School_Name** next to the *School Name* title

   ▸ Click **Mailings > Insert Merge Field > AMPL_School_No.** next to the *AMPL School No.* title

   ▸ Click **Mailings > Insert Merge Field > Student_ID** next to the **Student ID** title.

6. Click **Mailings > Update Labels**. The result should be similar to what is shown in Figure 80 (depending on your label size)

```
School·Name·«School_Name»¶              «Next·Record»School·Name·«School_Name»¶
MILO·School·No.·«MILO_School_No»¶        MILO·School·No.·«MILO_School_No»¶
Student·ID·«Student_ID»¶                 Student·ID·«Student_ID»¶
¤                                        ¤


«Next·Record»School·Name·«School_Name»¶  «Next·Record»School·Name·«School_Name»¶
MILO·School·No.·«MILO_School_No»¶        MILO·School·No.·«MILO_School_No»¶
Student·ID·«Student_ID»¶                 Student·ID·«Student_ID»¶
¤                                        ¤
```

Figure 80: Mail Merge document with fields inserted –[update when ready]-

7. Click **Mailings > Finish & Merge > Print Documents** to populate document with data and print labels. An example of labels to be printed is shown in Figure 81.

```
School Name Central School          School Name Central School
MILO School No. 1001                MILO School No. 1001
Student ID 18100101                 Student ID 18100106




School Name Central School          School Name Central School
MILO School No. 1001                MILO School No. 1001
Student ID 18100102                 Student ID 18100107
```

Figure 81: Labels ready to be printed

8. Repeat steps 2 to 7 for each school participating in the survey.

9. To prepare labels for School Questionnaires Repeat steps 2 to 7 using the SQLB_type document you created in section 8.3.1 with the pre-populated SQTF that was despatched with ACER Maple.

8.4   Labelling and Packaging Materials for Test Administrators

For each student in an STF label file (created in section 8.3), print three copies of their ID label. Attach a label to each of the following instruments:

- AMPL Test Booklet 1 **according to the allocation in the STF**; and

- AMPL Student Questionnaire

Bundle these materials, along with a School questionnaire (labelled with School Name, AMPL School no., and Principal ID) and all other materials listed in the Test Administrator Manual, Appendix 1.

9 RECEIPT OF MATERIALS AFTER THE ASSESSMENT

Test Administrators must return ALL assessment materials and resources to the NC, using a secure service. These materials must be carefully checked and sorted in preparation for data entry as outlined below and explained in detail in the corresponding sections of this chapter.

To prepare materials for data entry, all data administrators will need to:

1. Check student assessment instruments against the STF and prepare them for data entry (section 9.1).
2. Conduct internal STF data checks (section 9.2).
3. Check the school questionnaire and record its receipt in the SQTF (section 9.3)
4. Update STF and SQTF data in ACER Maple (sections 9.4-9.5).

After all materials from all schools have been returned, the data manager will need to update school participation in ACER Maple (sections 9.6-9.7).

> If STFs have been sent in electronic format to the School Coordinator and the Test Administrator, and the Test Administrator used the electronic version of the STF during the assessment to update data, then the STFs can also be returned in electronic format once they have been updated after the assessment. This will mean that no additional manual data entry will be required in the STF Excel files.

> If the STF has been returned in paper format, you will need to manually update the corresponding electronic Excel versions of the tracking forms that were initially populated with sampled students' data (see chapter 7) before they can be updated in ACER Maple.

9.1   Preparing Assessment Instruments for Data Entry

When materials have been received from the Test Administrators after the assessment, data administrators must check four types of assessment instruments against STF Attendance codes (i.e. the attendance code recorded by the TA on the STF), and then prepare them for data entry in ACER Maple. These instruments are:

- AMPL Test Booklets; and
- AMPL Student Questionnaires.

Most of the returned student assessment instruments will have responses, but some of them will remain empty. These are either spares or instruments that were intended for students that did not get completed. Each data administrator will therefore need five boxes to sort the instruments from the schools that belong in their domain:

- one box for empty student assessment instruments; and
- a number of boxes for completed (or partially completed) student assessment instruments:
    - one box for each of the AMPL Test Booklets; and
    - one box for the AMPL Student Questionnaires.

Each of these boxes should be sorted by AMPL school ID and by AMPL student ID within each school.

> All instruments must be kept secure and in order.

9.1.1   Sorting student assessment instruments that have correct corresponding STF Attendance codes

Table 37 shows correct STF Attendance codes for empty instruments, and for instruments with at least one response. It also shows how to sort the instruments in the corresponding boxes depending on whether they are empty or not.

<X> in Table 37 is the booklet number (e.g. 1,2,…). The box labels are provided as an example for the purpose of explaining the sorting procedure. You can label them in another way if you prefer

Table 37: STF Attendance codes for empty instruments and for instruments with at least one response

Correct STF Attendance code	Student assessment instruments	Box labelled
Test=1	AMPL Test Booklet <X> with at least one response.	DE<X>
Test=0	Empty AMPL Test Booklet X.	EMPTY
Q=1	AMPL Student Questionnaire with at least one response.	DEQ
Q=0	Empty AMPL Student Questionnaire.	EMPTY

9.1.2   Preparing student assessment instruments that have incorrect corresponding STF Attendance codes for enquiries

If there is a discrepancy between the STF Attendance code and the content of an instrument, then the instrument will need to be put aside, and the record in the STF should be flagged as requiring investigation.

> **Examples**
> 1. If Test=1 and the AMPL Test Booklet with the same student ID is empty, then the record in the STF must be flagged for investigation and the test booklet placed in the EMPTY box.
> 2. If Test=0 and the AMPL Test Booklet with the same student ID has at least one response, then the record in the STF must be flagged for investigation and the booklet will need to be placed aside in case it requires a different label.

After all booklets are checked, the data administrator needs to check the STF for internal discrepancies (see section 9.2). Once the STF has been checked, the data administrator or the data manager must contact the Test Administrator and/or School Coordinator to resolve discrepancies, correct the STF if required, and sort any instruments with discrepancies (see 9.2.4).

9.2   Conducting Internal STF Data Checks

The first thing you need to do when you receive a completed STF back from a school, is check the data that has been updated by the School Coordinator and Test Administrator.

The data you need to check includes:

* student demographic data (grade, gender, date of birth);
* SEN codes against participation codes; and
* participation codes against attendance codes.

These checks are all explained in the following subsections.

9.2.1   Checking student demographic data

The following checks are required for student demographic data:

* If the **class name includes grade level**, check that it is the correct grade for your country:

Cameroon	
Djibouti	
India	
Kenya	7
Rwanda	
The Gambia	
Sierra Leone	
Zambia	5

* check that each students' **date of birth** is within a reasonable range for the year level assessed in your country;
* check that each students' **gender** corresponds to the student names (wherever possible).

Highlight any suspicious records in the STF.

9.2.2   Checking SEN codes

The box below lists all valid SEN codes for Student Tracking Forms in the AMPL.

> **SEN codes for student tracking forms for the AMPL:**
> 0 – No SEN condition
> 1 – Functional disability
> 2 – Cognitive, behavioural, or emotional disability
> 3 – Limited assessment language experience

Check that

- ALL SEN codes are valid (i.e. ALL SEN codes are less than or equal to 3); and
- Participation code '3' (excluded on SEN basis) is only assigned to students with SEN > '0'.

Highlight any discrepant records in the STF.

9.2.3   Checking Participation codes against Attendance codes

Valid STF Participation codes:

1 – Participant

2 – Parent refusal

3 – Excluded on SEN basis

4 – Now enrolled at another school

5 – Not enrolled in this school, enrolment unknown

0 – Non-participant for any other reason

Valid STF Attendance codes (columns MT, Q, and NRA):

1 – Participant

0 – Non-participant

> At this stage, a student is considered to be a 'participant' (code '1') if he or she attended a session for at least one of the instruments (i.e. provided at least one response in one of the instruments which has been marked with Attendance code '1').

For each record in the STF check the following:

- if the STF Participation code is '1', then at least one of the Attendance codes is '1'; and
- if all three Attendance codes are '0', the STF Participation code is NOT '1'.

Highlight any discrepant records in the STF.

9.2.4   Enquiring about discrepancies

If any records have been highlighted in the STF, contact the Test Administrator and/or School Coordinator to find which data is correct and to update the STF as required.

In cases where a student completed the wrong instrument (i.e. Student A completed student B's instrument(s)), you will need to replace the label on student B's instrument with the label for student A.

Also make enquiries about missing data.

> ⚠️ Make every attempt to recover any missing data. It is extremely important for data analysis that demographic data for every student is available.

After all discrepancies have been resolved sort the instruments into appropriate boxes as indicated in Table 37 (page 115)

9.3   Receiving AMPL School Questionnaires

The School Questionnaire Tracking Forms (SQTF) are provided for each domain pre-populated by ACER with the list of all principals in each domain.

On receipt of materials from the Test Administrators, the data administrator must check the AMPL School Questionnaire and record the following in their SQTF:

- Any AMPL School Questionnaires that have at least one response must be recorded as '1'-'Returned' in the SQTF, sorted by AMPL School Number, and securely stored for data entry.

- Any empty AMPL School Questionnaires should be separated, sorted by AMPL School Number, and securely stored in the EMPTY box. The code that should be entered in the SQTF depends on the reason the questionnaire was returned empty (see Table 38).

Table 38: School Questionnaire Codes to be entered into SQTF

Code	Code meaning
1	Returned
2	School refused to participate
3	Non-participation for other reasons
4	No eligible students
5	School closed (permanently)
7	Replacement school not contacted
8	School ineligible for other reasons
9	School exclusion (specify type and number of eligible students)
0	School questionnaire has not been returned for another reason (not specified)

Once **all** school questionnaires that have been received back from schools have been recorded in the SQTF, update the SQTF for any remaining schools as indicated in Table 38.

> 📕 A school questionnaire code is required for each school.

> 📕 Add an explanation in the 'Comment' column if required. You must provide an explanation in the 'Comment' column for codes '3' and '9'. All other codes do not require comments unless you feel that it is necessary.

> ⚠️ The length of a comment is restricted to 500 characters. If more space is required please include the AMPL School Number and your comment in the Sampling Data Submission Checklist.

Save a copy of the completed SQTF Excel file with "_For_Import" added to the end of the file name.

Ensure that the new file is saved in a suitable location, so that it can be uploaded into ACER Maple (instructions are provided in section 9.4).

9.4   Updating Data from Tracking Forms in ACER Maple

Once the updated data in a tracking form has been checked and corrected, the data needs to be updated in ACER Maple.

> ⚠️ A data administrator login must be used for the following function.

To update data from tracking forms after the assessment:

1. On the main screen select **Update tracking data > Field operation forms** and then click **Activate**. The *Update field operation forms* screen will appear (Figure 82).

Figure 82: *Update field operation forms* screen

2. In the **Available Templates** drop-down list select the relevant tracking form template.

    If you are updating the STF data:

    ‣   Kenya and Zambia NC select STF_ENG;

    ‣   All other countries select STF_FRE.

    If you are updating the SQTF data, the SQTF template is selected by default.

> ⚠️ The SQTF data can only be updated when the status of ALL schools in your domain is known

3. In the **Selected Template Preview** a preview of the selected template will appear. Make sure this is the required template.

4. Click **Browse…** and manually enter or navigate to the location of the completed STF or SQTF Excel file to be imported. The Excel file will be uploaded into ACER Maple and its file name will appear in a tab beside the **Browse…** button (Figure 83).

Figure 83: Updated tracking form Excel file uploaded into ACER Maple

5. In the **Uploaded File Preview** a preview of the uploaded file will appear (Figure 84). Only the first 15 rows of data will be displayed. The total number of rows and columns in the uploaded file will be displayed beneath the preview.

Figure 84: Uploaded File Preview for a student tracking form

6. Click **Import** if the preview looks as expected. ACER Maple then performs a number of validity checks on the data in the selected Excel file.

The possible outcomes and required actions are described in Table 39.

Table 39: Scenarios when updating field data

Outcome	Next steps
• Tracking data has been validated and is ready to be updated in the ACER Maple database. • Message: *'Data have been validated. No errors. No warnings. Please click **Continue**.'*	1. Click **Continue**. 2. Another pop-up message will appear which shows the number of records updated. Click **Dismiss**. 3. Update data in ACER Maple from another tracking form. OR Click **Back** to return to the main screen.
• Tracking data contains some discrepancies that prevent the data from being imported (errors). • Pop-up message appears warning that there are discrepancies, the data cannot be imported, and prompts you to save or download the report • The *Update Field Data Validity Report* is available for download.	1. Click **Download Validity Report**, save the file in an appropriate location. Click **Cancel** to dismiss the pop-up message. 2. Manually enter or navigate to the location of the saved report and open it. 3. Refer to section 9.5 to check the records that appear in the report. 4. Make the required corrections in the Excel file and attempt to update the tracking form data again.
• Tracking data contains some discrepancies that should be checked before importing it. • Pop-up message appears warning that there are discrepancies but the data can be imported, and prompts you to download the report. • The *Update Field Data Validity Report* is available for download.	1. Click **Download Validity Report**, save the file in an appropriate location and open it. 2. Refer to section 9.5 to check the records that appear in the report. 3. If any corrections are required, make them in the tracking form and attempt to update the tracking form data again. 4. If corrections are not required, click **Continue** to import the data. Another pop-up message will appear listing the number of records that have been imported. Click **Dismiss**. 5. Remaining warnings must be explained in the validity report Excel file and included in the data submission package, as described in chapter 11.

9.5   Update Field Data Validity Report

If you attempt to update tracking data that contains discrepancies, ACER Maple will produce an *Update Field Data Validity Report* (in Excel format) that contains information about these issues.

> ⚠️ The *Update Field Data Validity Report* can contain multiple worksheets. Make sure you have checked the records in **all** worksheets in the report.

9.5.1   Discrepancies that can be detected in the STF data

Table 40 (page 123) and Table 41 (page 125) give detailed information about the types of discrepancies that may be listed in the *Update Field Data Validity Report* for STF data, as well as steps to resolve them:

- error worksheets list incorrect records that need to be corrected before the data can be successfully updated in ACER Maple;
- warning worksheets list suspicious records that need to be verified and either corrected or explained. Note that <STF> in the worksheet name will be replaced with the acronym of the template that you are using (STF_ENG or STF_FRE).

After all corrections have been made, save the file and attempt to update STF data in ACER Maple again.

> ⚠️ There may be multiple versions of the *Update Field Data Validity Report*.
>
> It is possible that after corrections have been made, some errors or warnings still remain. In this case, when you try to update the student tracking form data in ACER Maple, the validity report will be produced again.

Table 40: Update Field Data Validity Report for student tracking forms: Error worksheets – possible errors and their resolutions

Description	Error message in report	How to resolve	Action required in student tracking form Excel file
<STF> key violations worksheet			
Duplicate Student ID(s).	*[Student ID] is found in rows <Row1>, <Row 2>*	• Check against tracking form populated by ACER Maple before the assessment.	• Correct the incorrect Student ID.
Empty Student ID(s).	*[Student ID]cannot be empty*		• Fill empty cell
First digit in Student ID is incorrect.	*First digit in [Student ID] is incorrect*	N/A	• Change first digit to '1'.
Digit 2 in Student ID are incorrect.	*[Student ID] contains wrong entity identification*		• Change digit 2 to your country AMPL code[15].
Non-existent Student ID.	*Data for [Student ID] does not exist in the software*	• Check against tracking form populated from ACER Maple before the assessment.	• Correct Student ID.
Digits 3-6 in Student ID are incorrect.	*Data for AMPL school number does not exist*		
Combination of Student ID and Line No. does not exist in the data in ACER Maple.	*Data for combination of [Student ID] and Line No. has not been imported*		• Correct Student ID and/or Line No. as required
Record with combination of Student ID and Line No. has not been sampled by ACER Maple.	*Data for combination of [Student ID] and Line No. has not been sampled*		
<STF> missing records worksheet			
The record of a sampled student is missing from the <STF>.	*Record with [Student ID] and Line No. has been sampled but are not in the <STF>*	• Check against tracking form populated from ACER Maple before the assessment.	1. Add missing record. 2. Clarify student's participation status with Test Administrator.

---

[15] <mark>The country codes in the student ID are:</mark> '1' -; '2'-; '3'-; '4'-; '5'-I; '6'-.

Description	Error message in report	How to resolve	Action required in student tracking form Excel file
Incorrect columns worksheet			
Excel file is missing one or more columns. OR Excel file has one or more extra columns. OR Excel file has one or more columns with incorrect names. OR Excel file corresponds to a different template.	*Incorrect columns: Missing – <Column Name>, Extra – <Column Name>*	• Check that you are selecting the correct Excel file to import and the correct template in ACER Maple. OTHERWISE • Carefully check all adaptations you made in the template of the Excel file and in ACER Maple when you modified the corresponding ACER Maple template.	• Add missing columns or modify template in ACER Maple as required. OR • Delete extra columns or modify template in ACER Maple as required. OR • Correct column names or modify template in ACER Maple as required. OR • Select correct Excel file to import or select correct template in ACER Maple.
Validation rules worksheet			
One or more records contain one or more values that violate variable validation rules.	Description of validation rule violation(s)	• Check specified values against tracking form codebook for specified rows in Excel file.	• Correct invalid values.
SEN vs "Participation"			
Participation code is '3' indicating that student was excluded on SEN basis, but SEN code is '0' (no special education needs)	*[SEN] must be greater than 0 if [Participation] is 3*	• Contact School Coordinator and/or Test Administrators to enquire about student SEN and participation status	• Correct either the SEN code or the Participation code whichever is incorrect

Description	Error message in report	How to resolve	Action required in student tracking form Excel file
Participation discrepancies			
Participation code is '1' indicating that the student participated in assessment, but all attendance codes are '0' indicating that the student has not attended any of the instruments	*Candidate must attend at least one instrument to be marked as participating (Sampling level:0).*	• Contact Test Administrators to enquire about student attendance and participation status. • Check paper instruments for attendance code	• Correct either the participation or attendance code whichever is incorrect
Participation code is not '1' indicating that the student did not participate in assessment, but one or more of the attendance codes are '1' indicating that the student has attended one or more of of the instruments	*Candidate must be participating to attend the [MT] or [Q] or [NRA] (Sampling level:0).*	• Contact Test Administrators to enquire about student attendance and participation status. • Check paper instruments for attendance code	• Correct either the participation or attendance code whichever is incorrect

Table 41: Update Field Data Validity Report for student tracking forms: Warning worksheets – possible warnings and their resolutions

Description	Warning message in report	How to resolve	Action required in student tracking form Excel file
<STF> missing value(s) worksheet			
There are one or more missing values or empty cells for a specific column.	*Missing value(s) in <Column Name>*	1. Check the values in that column in the Excel file. 2. Contact the school to get the information.	• Update the ***<STF>.***
SEN > 4.	*Is this SEN agreed?*	1. Check the values in that column in the Excel file. 2. If it is greater than 4, Contact School Coordinator to enquire about SEN of the student	• Correct the SEN value if the value is not agreed with ACER.

9.5.2   Errors in updated School Questionnaire Tracking Form data

Table 42 (page 127) gives detailed information about the types of discrepancies that may be listed in the *Update Field Data Validity Report* for SQTF data, as well as steps to resolve them.

After all corrections have been made, save the file and attempt to update SQTF data in ACER Maple again.

Table 42: **Update Field Data Validity Report for School Questionnaire Tracking Form**: Error worksheets – possible errors and their resolutions

Description	Error message in report	How to resolve	Action required in School Questionnaire Tracking Form Excel file
SQTF key violations worksheet			
Duplicate School Principal ID(s).	*[School Principal ID] is found in rows <Row1>, <Row 2>*	• Check against pre-populated tracking form despatched with ACER Maple	• Correct the incorrect School Principal ID.
Empty School Principal ID(s).	*[School Principal ID] cannot be empty*		• Fill empty cell.
First digit in School Principal ID is incorrect.	*First digit in [School Principal ID] is incorrect*	N/A	• Change first digit to '2'.
Digits 2-4 in School Principal ID are incorrect.	*[School Principal ID] contains wrong entity identification*		• Change digits 2-4 to your country 3-digit code.
Non-existent School Principal ID.	*Data for [School Principal ID] does not exist in the software*	• Check against pre-populated tracking form despatched with ACER Maple	• Correct School Principal ID.
Digits 5-8 in School Principal ID are incorrect.	*Data for AMPL school number does not exist*		
Combination of School Principal ID and Line No. does not exist in the data in ACER Maple.	*Data for combination of [School Principal ID] and Line No. has not been imported*		• Correct School Principal ID and or Line No. as required.
Record with combination of School Principal ID and Line No has not been sampled by ACER Maple.	*Data for combination of [School Principal ID] and Line No. has not been sampled*		
Digits 9-11 in School Principal ID are incorrect.	*[School Principal ID] has incorrect part for the record*		• Correct School Principal ID.
SQTF missing records worksheet			
The record of principal is missing from the SQTF.	*Record with [School Principal ID] and Line No. has been sampled but are not in the SQTF*	• Check against pre-populated tracking form despatched with ACER Maple	1. Add missing record. 2. Clarify principal's participation status with the Test Administrator.

Description	Error message in report	How to resolve	Action required in School Questionnaire Tracking Form Excel file
Incorrect columns worksheet			
Excel file is missing one or more columns. OR Excel file has one or more extra columns. OR Excel file has one or more columns with incorrect names. OR Excel file corresponds to a different template.	*Incorrect columns: Missing – <Column Name>, Extra – <Column Name>*	• Check that you are selecting the correct Excel file to import and the correct template in ACER Maple. OTHERWISE • Carefully check all adaptations you made in the template of the Excel file and in ACER Maple when you modified the corresponding ACER Maple template.	• Add missing columns or modify the template in ACER Maple as required. OR • Delete extra columns or modify the template in ACER Maple as required. OR • Correct column names or modify the template in ACER Maple as required. OR • Select the correct Excel file to import or select the correct template in ACER Maple.
Validation rules worksheet			
One or more records contain one or more values that violate variable validation rules.	Description of validation rule violation(s)	• Check the specified values against the tracking form codebook for the specified rows in the TTF Excel file.	• Correct any invalid values.

9.6   Updating School Participation

9.6.1   Preparing data in the School Participation Form

School participation status should have been tracked by your NC using either the School Participation Form exported from ACER Maple (section 3.2) or in another school file, where all other information about selected schools is saved.

Once the participation status of **all** sampled and replacement schools has been confirmed, the sampling process completed, students assessed, and all tracking forms have been updated after the assessment, you will need to check the file where school participation status has been tracked to ensure that:

- all schools from the LSS are listed; and
- each school has the appropriate code according to its participation status (Table 43).

If participation codes have been entered into another file, you will need to export the School Participation Form from ACER Maple (section 3.2), then transfer the codes and comments into the School Participation Form.

The complete School Participation Form data must then be updated in ACER Maple (instructions in section 9.6.2).

Table 43: School Participation Codes for the AMPL

Code	Code meaning
1	Participant
2	Refusal
3	Non-participation for other reasons (please specify, e.g. school fire or flood, teacher strike, conflict zone)
4	No eligible students
5	School closed (permanently)
7	Replacement school not contacted
9	School exclusion (specify type and number of eligible students)
11	School ineligible for other reasons (please specify)

A school participation code is required for each school.

Add an explanation in the 'Comment' column if required. You must provide an explanation in the 'Comment' column for codes '3', '9' and '11'. All other codes do not require comments unless you feel that it is necessary.

The length of a comment is restricted to 500 characters. If more space is required please include your comment in the Sampling Data Submission Checklist together with the AMPL School Number.

9.6.2   Updating school participation in ACER Maple

> ⚠️ Do not import the School Participation Form data until the participation status for **all** schools has been updated.

> ⚠️ The data manager login must be used for the following function.

To update school participation in ACER Maple:

1. On the main screen select **Update tracking data > Institution participation form** and then click **Activate**. The *Update institution participation form* screen will appear (Figure 85).

Figure 85: *Update institution participation form* screen

2. Click **Browse…** and manually enter or navigate to the location of the completed School Participation Form Excel file to be imported. The Excel file will be uploaded into ACER Maple and its file name will appear in a tab beside the **Browse…** button (Figure 86).

Figure 86: Updated SPF Excel file uploaded into ACER Maple

3. In the **Uploaded File Preview** a preview of the uploaded file will appear (Figure 87). Only the first 15 rows of data will be displayed. The total number of rows and columns in the uploaded file will be displayed beneath the preview

Figure 87: Uploaded File Preview for a school participation form

4. Click **Import** if the preview looks as expected. An alert will appear asking if you have backed up your data:

    ▸   if the data has been backed up recently, click **Yes**;

        OTHERWISE

    ▸   click **No** and back up the data (section **Error! Reference source not found.**).

5. ACER Maple then performs a number of validity checks on the data in the School Participation Form Excel file. The possible outcomes and required actions are described in Table 44.

Table 44: Scenarios when updating school participation data

Outcome	Next steps
• School participation data has been validated and is ready to be updated in the ACER Maple database. • Message: '*Data have been validated. No errors. No warnings. Please click* **Continue**'	1. Click **Continue**. 2. Another pop-up message will appear listing the number of records updated. Click **Dismiss**. 3. Proceed to Chapter 11.
• School participation data contains some discrepancies that prevent the data from being imported (errors). • Message: '*Data contains errors and cannot be imported into the ACER Maple database.*' • Pop-up message prompts you to download the report. • The *Update Institution Participation Validity Report* is available for download.	1. Click **Download Validity Report**, save the file in an appropriate location. Click **Cancel** to dismiss the pop-up message. 2. Manually enter or navigate to the location of the saved report and open it. 3. Refer to section 9.7 to check the records that appear in the report. 4. Make the required corrections in the Excel file and attempt to update school participation form again.
• School participation data contains some discrepancies that should be checked before importing (warnings). • Message: '*Data contains discrepancies but can be imported if corrections are not required.*' • The *Update Institution Participation Validity Report* is available for download.	1. Click **Download Validity Report**, save the file in an appropriate location and open it. 2. Refer to section 9.7 to check the records that appear in the report. 3. If any corrections are required, make them in the *School Participation Form* and attempt to update the school participation data again. 4. If corrections are not required, click **Continue** to import the data. Another pop-up message will appear listing the number of records that have been imported. Click **Dismiss**. 5. Remaining warnings must be explained in the validity report Excel file and included in the data submission package, as described in chapter 11.

9.7   Update Institution Participation Validity Report

The validity report produced by ACER Maple will be named *Update_Institution_Participation_Validity_Report (<Date and Time>).xlsx*, where *<Date and Time>* has <yyyy_mm_dd_hour_min> format. Save the file in an appropriate location and open it to review the error/warning messages. Each row in the report represents a discrepancy. Some of the discrepancies can be connected to other discrepancies listed in the excel file.

Table 45 (page 134) and Table 46 (page 136) give detailed information about the types of discrepancies that may be listed in the *Update Institution Participation Validity Report*, as well as steps to resolve them.

- Error worksheets list incorrect records that need to be corrected before the data can be successfully updated in ACER Maple.

- Warning worksheets list suspicious records that need to be verified and either corrected or explained.

> ⚠️ There may be multiple versions of the *Update Institution Participation Validity Report* .
>
> It is possible that after corrections have been made, some errors or warnings still remain. In this case, when you try to update the School Participation Form data in ACER Maple, the validity report will be produced again.

Corrections may need to be made in participants' tracking information, in the assessment data entered in ACER Maple, or in the School Participation Form (SPF). After all corrections have been made, attempt to import School Participation Form again.

Please note that as long as errors exist in the *Update Institution Participation Validity Report*, you will not be able to update school participation. Successful completion of this task is one of the requirements for enabling the **Submit data** function, which is needed for the final task of submitting the database to ACER.

If all errors have been resolved and the *Update Institution Participation Validity Report* contains only warnings (i.e. records that do not need to be corrected), school participation can be successfully updated (see Table 44). The validity report Excel file must be saved and all warnings listed in the file must be explained in the report as described in Table 44. This file will be required as part of the data submission to ACER (see section 11.4).

> 📕 It is possible that the *Update Institution Participation Validity Report* will not be produced by ACER Maple. This would happen if there were no discrepancies found in the data when updating the School Participation Form. In this case, there will be no warnings requiring explanation, and the report will not be required for data submission.

Table 45: Update Institution Participation Validity Report: Error worksheets – possible errors and their resolutions

Description	Error message in report	How to resolve	Action required
Incorrect columns worksheet			
Excel file is missing one or more columns. OR Excel file has one or more extra columns. OR Excel file has one or more columns with incorrect names. OR Excel file corresponds to a different template.	*Incorrect columns:* *Missing – <Column Name>,* *Extra – <Column Name>*	• Check that you are selecting the correct SPF Excel file to import and the correct template in ACER Maple. OTHERWISE • Carefully check all adaptations you made in the template of the SPF Excel file and in ACER Maple when you modified the corresponding ACER Maple template.	• Select the correct SPF Excel file to import or select the correct template in ACER Maple. OR • Add all missing columns or modify the template in ACER Maple as required. OR • Delete all extra columns or modify the template in ACER Maple as required. OR • Correct all column names or modify the template in ACER Maple as required.
Key violations worksheet			
There are one or more illegitimate AMPL School Numbers.	*[AMPL School No.] is illegitimate*	• Check the LSS – only AMPL School Numbers provided in the LSS are legitimate.	• Correct all AMPL School Numbers in the SPF Excel file.
There are one or more empty cells for AMPL School Number.	*[AMPL School No.] is missing*	1. Check the AMPL School Number(s) in the SPF Excel file. 2. Check the LSS.	• Add all correct AMPL School Numbers to the SPF Excel file.
There are one or more duplicate AMPL School Numbers.	*[AMPL School No.] <#>is found in rows <row1, row2,..>*		• Correct all AMPL School Numbers in the SPF Excel file.
Incomplete records worksheet			
Some AMPL School Numbers from the LSS are missing.	*All schools should be updated together*	1. Check the AMPL School Number(s) in the SPF Excel file. 2. Check the LSS.	• Add all correct AMPL School Numbers to the SPF Excel file.

Description	Error message in report	How to resolve	Action required
Validation rules worksheet			
One or more records contain one or more values that violate variable validation rules.	Description of validation rule violation(s)	• Check the specified values in the SPF Excel file against the School Participation Form codebook.	• Correct all invalid values in the SPF Excel file.
SPF worksheet			
School participation code was entered incorrectly. OR List of Students were not imported for all schools.	*AMPL School No participating but no records were imported for sampling*	1. Check the school participation code in the SPF Excel file. 2. Find out why the List of Students has not been imported.	• Correct the school participation code in the SPF Excel file. OR • Proceed with sampling and assessment in the school.
School participation code is entered incorrectly. OR Students were not sampled in all schools.	*AMPL School No participating but no records were sampled*	1. Check the school participation code in the SPF Excel file. 2. Find out why the students were not sampled.	
School participation code is entered incorrectly. OR Tracking forms were not updated for all schools.	*AMPL School No participating but no records were identified as participating on the field operation form*	1. Check the school participation code in the SPF Excel file. 2. Check whether the tracking form was updated in ACER Maple.	• Correct the school participation code in the SPF Excel file. OR • Update the tracking form for the school in ACER Maple.
School participation code is '3', '9' or '11', but the reason for the code has not been specified in the 'Comments' column.	*Codes 3, 9, and 11 require specifications in Comment column.*	Check the school participation code in the SPF Excel file.	• Correct the school participation code in the SPF Excel file. OR • Specify the reason for the code.

Table 46: Update Institution Participation Validity Report: Warning worksheets – possible warnings and their resolutions

Description	Warning message in report	How to resolve	Action required in School Participation Form Excel file
SPF vs field operation forms worksheet			
School participation code is entered incorrectly. OR Tracking form has incorrect test participation codes. OR There is a reason for this discrepancy.	*AMPL School No is not participating but some records were identified as participating on the field operation form*	1. Check the school participation code in the SPF Excel file. 2. Check the tracking form Excel file for the school.	• Correct the school participation code in the SPF Excel file. OR • Correct the tracking form Excel file for the school and update it again in ACER Maple.
SPF replacement worksheet			
School participation code is entered incorrectly. OR There is a reason for this discrepancy.	*Main and first replacement school both participating* *Main and second replacement school both participating* *First replacement and second replacement school both participating*	• Check the school participation code in the SPF Excel file.	• Correct the school participation code in the SPF Excel file. OR • Specify the reason for having main and corresponding replacement school participating at the same time in the assessment for each line in the report Excel file. THEN • Contact Clare Ozolins at Clare.Ozolins@acer.org, explaining what happened.

10   DATA ENTRY

10.1   Data Entry Organisation

Before responses in the survey instruments can be entered into ACER Maple, the process of data entry needs to be carefully planned and organised. NCs need to formulate a data entry plan for each domain (i.e. each Admin ID) within their national context, to ensure they will have sufficient staff and equipment for their data entry requirements. NC planning depends on the test design(s) that had been implemented by it.

Once the appropriate number of data entry operators (DEOs) for each administrative unit has been decided upon, and employed appropriately, they need to undergo training before they can begin entering the data received from schools.

10.1.1   Data entry planning

Of all the survey instruments, the Student Questionnaire involves the most data being entered, because every student is expected to complete it. The School Questionnaire involves the least data being entered, as there will only be one completed per school. See Table 47 for the expected number of records and responses that could be entered for each survey instrument.

Table 47: Expected records and responses in survey instruments

Instrument	Max. number of records per instrument	Number of responses per person	Data entry days per instrument per NC
AMPLb Test Booklets (1-2)	2500 each	60	6-8
AMPLa Test Booklets (3-4)	2500 each	75	9-10
AMPLab Test Booklets (3-8)	840 each	75	4-5
Student Questionnaire	5000	25	5-6
School Questionnaire	150	20	1-2 hours

Once they are well-practiced in data entry for their allocated instrument(s), a DEO with a good keystroke will take about one second per response. Allowing for an initial slower period at the beginning of data entry, and accounting for page turning and various other interruptions, responses from AMPL Test Booklets 1 and 2 will take 6-8 working days for one person to enter. The time required for other instruments is estimated in the same way.

As stated in section 1.3:

- One data manager is responsible for all data management operations in the NC.
- Four to five data administrators assist the data manager with school-by-school operations. Each DA is responsible for a different domain (i.e. Admin ID).

Therefore,

- Two DEOs can work under the instruction of <u>each data administrator</u> if the test design a or b is selected by the NC
- Up to four DEOs can work under the instruction of <u>each data administrator</u> if the test design a+b is selected by the NC.

Therefore, each data administrator is responsible for managing the data entry for 1/4 or 1/5 of all respondents. So it will take about 2 days for a single DEO to enter the responses from AMPL Test Booklet 1 (or AMPL Test Booklet 2) in each domain, but it will take about ==4-5 days for a single DEO to enter the responses from AMPL Student Questionnaire== (a or b).

The data manager will need to figure out how many personnel will be required to enter the data from all assessment instruments, and what equipment is available for this purpose. To aid these decisions, and to better manage the data entry process overall, a **data entry plan** should be created. Two examples of how this can be done are provided below.

In the NCs that opted for design b, the data manager might elect to have two data entry operators per domain and to divide data entry tasks between them, as shown in Table 48. This plan will require 8-10 DEOs in total, and data entry would be finished in 3-5 days, assuming the maximum number of records in each instrument.

Table 48: Example of the data entry plan for design b with two data entry operators per domain

Instrument	Admin ID		
	01	**02**	**……**
AMPL Test Booklet 1 & 2	DEO1a	DEO2a	……
Questionnaires (STQ &SCQ)	DEO1b	DEO2b	……

In the NCs that opted for design a+b, the data manager might elect to have four data entry operators per domain and to divide data entry tasks between them, as shown in Table 49. This plan will require 16-20 DEOs in total, and data entry would be finished in approximately the same time, assuming the maximum number of records in each instrument.

Table 49: Example of the data entry plan for AMPLab with four data entry operators per domain

Instrument	Admin ID		
	01	02	……
AMPL Test Booklet 3 &4	DEO1a	DEO2a	……
AMPL Test Booklet 5&6	DEO1b	DEO2b	……
AMPL Test Booklet 7&8 + School Questionnaire	DEO1c	DEO2c	……
Student Questionnaire	DEO1d	DEO2d	……

The data manager and data administrator will also need to ensure that sufficient equipment is available for data entry. Each DEO will need a PC to enter data into ACER Maple, but the same PC can be used for more than one DEO if they are working in shifts.

> The data manager and the data administrator can perform data entry tasks if necessary, but they will need separate DEO logins in ACER Maple to do so.

10.1.2 Training

The data manager will need to train all data entry operators (DEOs) before data entry in how to use ACER Maple. For the purposes of training DEOs, data managers are advised to adapt the *Data Management Training Presentation Part 2* and other training materials provided by ACER[16]. However, not all topics included in this presentation will be required for DEO training.

The topics that must be covered in the DEO training are:

- ACER Maple login and navigation (chapter 2)
- ACER Maple response formats and data entry rules (section 10.2.1)
- Entering data into ACER Maple from paper-based instruments (section 10.2)

Table 50 lists the data manager's tasks in relation to DEO training and provides references to relevant sections and/or chapters of this document.

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[16] MS teams>AMPL Partner Collaboration > Data Management Resources.

Table 50: Data manager tasks in relation to data entry operator training

Preparation task	Reference
Ensure that training setup corresponds to the real working conditions of data entry operators.	Section 4.3, Introduction, Chapters 1 and 2
Prepare ACER Maple with updated STF data for students in schools in stratum 99, as described in the data administrator training	Chapters 4 and 9
Download *Data Management Training Presentation Part 2* provided by ACER.	MS Teams>AMPL Partner Collaboration>Data Management Resources
Prepare paper-based instruments for training with fake data for students in schools in stratum 99	*Prepare paper-based instruments for training* section (page 141)

For the purposes of DEO training, a number of fictitious 'schools' have been included in the LSS and can be used to test the ACER Maple data entry procedures before any real data is available. These 'schools' are found in stratum 99 of the LSS, for every value of Admin ID. As outlined in the data administrator training chapter (chapter 4):

- Training List of Students (LST) data should be prepared for schools from stratum 99;
- The training LST data should be imported;
- Students from schools in stratum 99 should be sampled, and instruments allocated;
- STF templates should be populated with sampling data from schools in stratum 99;
- Populated STF templates should be "completed" with error-free participation data then used to update STF in ACER Maple.

In addition to these data administrator training tasks, the data manager or data administrator will need to do the following in preparation for DEO training:

- Prepare paper-based instruments for training with 'fake' responses for students/schools in stratum 99, according to the instrument allocated to them in the STF, and the participation data that was used to update the corresponding STFs in ACER Maple;
- DEO logins are added by the data administrator in ACER Maple;
- Data administrators need to ensure that the appropriate instrument(s) are allocated to each DEO for data entry training (according to the data entry plan);
- Data from the training paper-based instruments should be entered by DEOs.

Training Setup

DEO training should be set up to correspond to the real working conditions of DEOs as much as possible. To achieve this you should make sure that:

6. All DEOs attend the training.

7. The required computing equipment is ready:

   ▸ ACER Maple is installed in a LAN environment as described in Chapter 2 with one of PCs for each DEO plus one host PC;

   ▸ each PC meets the system requirements and PC setup (sections 2.2 and 2.3); and

   ▸ DEO logins are created for each DEO as explained in section 10.1.3.

8. Paper-based instruments for training (containing 'fake' responses for students/schools in stratum 99) are provided to DEOs.

9. Audio-visual equipment is ready to use. Some examples of this equipment might include:

    ‣ a projector for viewing the *Data Management Training Presentation Part 2*, ensuring that the screen is visible from every DEO workstation; or

    ‣ a second monitor for each DEO, so that they can watch the *Data Management Training Presentation Part 2* on one monitor and complete the training exercises using another monitor.

Prepare paper-based instruments for training

The data manager will need to provide enough copies of the following instruments to each DEO participating in the training:

- AMPL Test Booklet 1 or AMPL Test Booklet 2;
- AMPL Student Questionnaire;
- National or Regional Assessment Booklet; and
- AMPL School Questionnaire

Each DEO should receive at least two copies of the instrument(s) for which they will be entering real data when it is received from schools, according to the data entry plan (section 10.1.1). Both copies will be filled with 'fake' responses that each DEO will use to practice entering data. One copy will be error-free, and another copy will contain errors (such as invalid responses) that the data entry operator will need to correct for during data entry.

On the front cover of the student level instruments (AMPL Test Booklets 1 and 2, AMPL Student Questionnaire, and National or Regional Assessment Booklet), the following information should be provided:

School Name

AMPL School No.

Student ID

The data manager should refer to the STFs prepared for training to ensure that the information listed on the front of each instrument is consistent with the information listed in the STF:

- Student IDs used for AMPL Test Booklets 1 & 2 should be consistent with what was allocated in the STF;
- Students should be marked as attending the appropriate instrument session on the STF.

On the front cover of the School Questionnaire(s) the following information should be provided:

School Name

AMPL School No.

Principal ID

The data manager/administrator should ensure that the participation status of each school in stratum 99 being used for training purposes has been updated accordingly in the Institution Participation Form (section 9.6.2).

Once the paper-based instruments have been prepared for training, DEO logins should be created and the appropriate instruments allocated to them for data entry training (section 10.1.3).

10.1.3   Manage Data Entry Operators in ACER Maple

After the data entry plan has been finalised, the data entry equipment has been prepared, and data entry operators (DEOs) have been employed, ACER Maple logins need to be created for each DEO. The **Manage Data Entry Operators** function allows data administrators to add, search, edit or delete DEO logins, or to reset a DEO's first time login code (FTLC). All of these functions can be accessed from the *Manage Data Entry Operators* screen.

Accessing the Manage Data Entry Operators screen

> ⚠ A data administrator login must be used for the following function.

To access the *Manage Data Entry Operators* screen:

1. On the main screen select **User settings > Manage data entry operators** and then click **Activate**. The *Manage data entry operators* screen will appear (Figure 88).

     From this screen you can **Add a new record**, or **Search**, **Edit**, **Reset FTLC** or **Delete** existing records. The instructions for these actions are provided in the corresponding sections on pages 142 to 149

Figure 88: *Manage data entry operators* **screen**

Add new record

> ⚠ A data administrator login must be used for the following function.

To create ACER Maple logins for each data entry operator:

1. Follow the instructions on page 142 to access the *Manage Data Entry Operators* screen.
2. Ensure that the *New* tab is highlighted on the left-hand side of the screen.
3. Click **Add a new record**. A pop-up window will appear (Figure 89).

Figure 89: Add new data entry operator details

4.   Enter the user name and affiliation for the DEO login being added (Figure 90).

Figure 90: New DEO user name and affiliation

> ⚠️ Each data entry operator login must be assigned a **unique** 'User name'.

5.   In the Instruments assigned box, allocate at least one instrument to the DEO login being added, by selecting the appropriate tick box(es) (Figure 91). If an instrument is already listed as "[used]" it cannot be allocated again to a different DEO in the same domain.

Figure 91: Allocate instrument(s) to DEO

6.   Click **Save & Next**. ACER Maple then performs a number of validity checks on the information that has been entered.

The possible outcomes and required actions are described in Table 51.

Table 51: Possible outcomes when adding a new DEO login

Outcome	Next steps
- All fields are entered and ACER Maple found no discrepancies - A pop-up window appears listing the number of records created. It will automatically disappear after a few seconds - No further DEO logins are required	1. Click **Cancel**. The *Manage Data Entry Operators* screen will return. The new DEO credentials entered in steps 4 to 6 will be listed in the middle of the screen, along with their *First time login code* (FTLC). 2. Click **Back** to return to the main screen.
- All fields are entered and ACER Maple found no discrepancies - A pop-up window appears listing the number of records created. It will automatically disappear after a few seconds - Another DEO login is required	1. Repeat steps 4 to 6 to add another DEO login. 2. After the information is entered, click **Save & Next** and follow the steps that correspond to the appropriate outcome described in this table.
- There is an error in the data entered for the DEO. - A pop-up window appears describing the error that is preventing the data from being saved. It will automatically disappear after 10 seconds. It can also be closed manually by clicking 'X' in the top right corner.	1. Make the required corrections to the data. 2. After the data is corrected, click **Save & Next** and follow the steps that correspond to the appropriate outcome described in this table.

Search

ACER Maple also includes a search function with the **Manage Data Entry Operators** function.

> A data administrator login must be used for the following function.

To search the list of DEOs by user name, affiliation, or instrument assignment:

1. Follow the instructions on page 142 to access the *Manage Data Entry Operators* screen.
2. Ensure that the *Search* tab is highlighted on the left-hand side of the screen.
3. Enter the information you wish to use to search the list of DEOs (Figure 92). If all search terms are blank, all DEO logins will be listed.

   - Enter a user name to locate a specific DEO;
   - Enter a user affiliation to see all DEOs with the same affiliation; and/or
   - Select one or more instruments within the instruments assigned box to see which DEOs have been assigned those instruments.

Figure 92: Search data entry operators

4. Click the **Search** button at the <u>bottom</u> of the screen. All records matching the search terms that have been entered will be listed in the middle of the *Manage Data Entry Operators* screen (Figure 93).

| 1 | 01 | ZZAdeo2 | StQ,KEN7 | | | Edit | Reset FTLC | Delete |

Showing 1 to 1 of 1 entries   Previous 1 Next

Figure 93: DEO search results

If no records match the entered search terms, the message "No data available in table" will display in the centre of the screen.

Edit

This option allows data administrators to make changes to the user name, user affiliation, and/or instruments assigned to any DEO in ACER Maple.

> ⚠️ A data administrator login must be used for the following function.

To edit user name, affiliation, or instrument assignment:

1. Follow the instructions on page 142 to access the *Manage Data Entry Operators* screen.

2. Locate the entry of the DEO login with data that needs to be changed in the list in the middle of the screen. Use the **Search** function if necessary.

3. Underneath the Action column heading, click **Edit**. A pop-up window will appear (Figure 94).

Figure 94: Edit DEO details

4. Make the required corrections to the data:

   - User name and affiliation can be updated by directly editing the text in those fields;

   - Instrument assigned can be updated by deselecting any instrument currently assigned and selecting another. More than one instrument can be selected, as long as it is not listed as "[used]".

5. Click **Save**. You will be returned to the *Manage Data Entry Operators* screen and ACER Maple will perform some validity checks of the entered data. The possible outcomes and required actions are described in Table 52.

Table 52: Possible outcomes when editing a DEO login

Outcome	Next steps
• All fields are updated and ACER Maple found no discrepancies • A pop-up window appears listing the number of records updated. It will automatically disappear after a few seconds • No other DEO logins need to be edited	1. Click **Back** to return to the main screen.
• All fields are updated and ACER Maple found no discrepancies • A pop-up window appears listing the number of records updated. It will automatically disappear after a few seconds • Another DEO login needs to be edited	1. Repeat steps 2 to 5 to edit another DEO login. 2. After the information is updated, click **Save** and follow the steps that correspond to the appropriate outcome described in this table.
• There is an error in the data entered for the DEO. • A pop-up window appears describing the error that is preventing the data from being saved. It will automatically disappear after 10 seconds. It can also be closed manually by clicking 'X' in the top right corner.	1. Make the required corrections to the data. 2. After the data is corrected, click **Save** and follow the steps that correspond to the appropriate outcome described in this table.

Delete

> ⚠ A data administrator login must be used for the following function.

To delete a DEO credentials from ACER Maple:

1. Follow the instructions on page 142 to access the *Manage Data Entry Operators* screen.
2. Locate the entry of the DEO login with data that needs to be deleted in the list in the middle of the screen. Use the **Search** function if necessary.
3. Underneath the Action column heading, click **Delete**. A pop-up window will appear listing the login that will be deleted, and a message asking if you want to continue.
4. Click **OK**. Another pop-up window will appear listing the record that has been deleted. It will automatically disappear after a few seconds. The *Manage Data Entry Operators* screen will return.
5. Repeat steps 2 to 4 for any other DEO logins that need to be deleted.

Reset first time login code (FTLC)

The reset FTLC option is used when a DEO has forgotten their password and needs to have it reset by their data administrator.

> **!** A data administrator login must be used for the following functions.

To reset a DEO's first time login code:

1. Follow the instructions in the previous subsection (page 142) to access the *Manage Data Entry Operators* screen.

2. Locate the entry of the DEO login with data that needs to be deleted in the list in the middle of the screen. Use the **Search** function if necessary.

3. Underneath the Action column heading, click **Reset FTLC**. A pop-up window will appear warning that the FTLC for the selected record will be reset, that the previously set user password will become invalid, and a message asking if you want to continue.

4. Click **OK**. Another pop-up window will appear listing the record that has been updated. It will automatically disappear after a few seconds. The *Manage Data Entry Operators* screen will return, with a new FLTC listed in the First time login code (FTLC) column of the DEO's record in the middle of the screen.

5. The new FTLC will need to be provided to the DEO. The will need to follow the instructions in section 2.8.1 to complete the first time log in process again, using the new FTLC as the login code.

10.2   Entering Responses into ACER Maple

Once ACER Maple logins have been created for each DEO, and instruments allocated to each DEO, data entry can begin.

10.2.1   Data entry rules

Each instrument that has been processed for data entry has information on the cover page that needs to be entered in the corresponding record in ACER Maple:

- ▸ School Name;
- ▸ AMPL School Number; and
- ▸ Participant ID

There also must be at least one response provided by the participant inside the instrument. ALL responses must be entered.

On the first few pages of each instrument, there are also instructions and examples that have been provided to help participants understand how to record their responses. These example responses should NOT be entered into ACER Maple.

Units and items in AMPL questionnaires

Each question in the paper-based questionnaire instruments correspond to a **unit** of one or more **item(s)**. Items are questions or statements to which participants have to respond. Several items can be combined into one unit, or a unit may only contain one item. Within the AMPL questionnaires, units are numbered sequentially, and items within units are marked by letters. An example, unit 3, is provided in Figure 95.

Figure 95: Question 3 from AMPL Student Questionnaire

Unit 3 consists of four items. The corresponding ACER Maple variable names (ST03a, ST03b, ST03c, and ST03d) are listed in light grey text on the side of the page. The items in Figure 95 are multiple choice (MC): they have several response options from which the participant selects one. Each response option has a corresponding response code next to it (i.e. 0, 1, 2, or 3 in Figure 95), which is what should be entered by the DEO into ACER Maple.

Other items in the questionnaires have space provided for an open-ended response (i.e. no predefined codes). These items are called open-ended items (OE), such as items 5a and 5b in Figure 96. The responses provided by participants are entered directly by the DEO into ACER Maple.

Figure 96: Question 5 from AMPL School Questionnaire

Units and items in test booklets

In AMPLb test booklets, each item is numbered sequentially throughout each booklet, and units are not numbered (see Figure 97). The corresponding ACER Maple variable names appear in grey text above the question number (i.e. PF487 and PF489 in Figure 97) or on the side.

However, at the beginning of AMPLa and AMPLab booklets there is a number of item that are numbered 1-5 within each section. These items will have an <x.y> numbering, where x is a section number and y is an item number within the section. For example, the second number in the first section will have a greyed out code 1.2 (see [provide example from the test booklet]). 1.2 will be the screen label for this item.

Questions 2 and 3

Read the following text and then answer the questions.

Today we have seen a nurse. She has vaccinated all the pupils and the teacher against yellow fever. The nurse pricked my arm as hard as a mosquito.

PF487

2   Where did the vaccination take place?

    A   at the market
    B   at the school
    C   at the dispensary
    D   at home

PF489

3   Who is talking in the text?

    A   a doctor
    B   a pupil
    C   a nurse
    D   a teacher

Figure 97: Question 2 and 3 from AMPL Test Booklet 1

Most of the items in the test booklets are multiple choice (MC). Each letter corresponds to a numeric code which is entered into ACER Maple, as follows:

- A=1
- B=2
- C=3
- D=4
- E=5

Some items in the test booklets are complex multiple choice (CMC) (Figure 98). In these cases several participant choices are treated together as one response.

E2   Which of the students in the table have green as their favourite colour?

Select 'Yes' or 'No' for each student.

Student		
Abena	○ Yes	○ No
Kojo	○ Yes	○ No
Udo	○ Yes	○ No
Femi	○ Yes	○ No

Figure 98: Example question 2 AMPL Test Booklet 1

In the example in Figure 98, four responses are treated together as one response:

- Each 'Yes' must be coded as '1';
- Each 'No' must be coded as '2';

▸   Four numbers are entered into ACER Maple for the participant's response e.g. 1212, or 1221, etc.

Response options are usually coded in the order they appear on the page, when reading left to right, top to bottom. The first option is coded as 1, the second as 2 etc. For example, in another CMC item:

▸   Each 'Left' must be coded as '1';

▸   Each 'Right' must be coded as '2';

▸   Four numbers are entered into ACER Maple for the participant's response e.g. 121.

Data entry screens

An ACER Maple data entry screen is shown in Figure 99.

Figure 99: ACER Maple data entry screen for School Questionnaire

The large yellow field at the top of the screen displays information about the field currently selected for data entry, with the variable name, and variable type and validation rules (in brackets) listed on the left above the box. This information cannot be edited directly.

The next three fields, listed under "Cover Page" and before "Questions", are for entering required information from the cover page:

▸   Booklet number;

▸   School Name;

▸   AMPL School Number; and

▸   Principal (or Student) ID.

The remaining fields, listed under "Questions" are for entering participant responses the test questions. Labels appear above each field and display either:

> ▸ A combination of the relevant unit number and item letter, if there is more than one item in the unit (e.g. 5a, 5b from the School Questionnaire, see Figure 96 and Figure 99); or
>
> ▸ The unit number, if the unit only contains one item; or
>
> ▸ The item number, if items are numbered sequentially (e.g. in test booklets)

Variables in ACER Maple

Each item in a paper-based instrument corresponds to a variable in ACER Maple.

There are five main types of variables in ACER Maple that are used to enter responses from the AMPL survey instruments. Every response field in ACER Maple must contain either a response code (if a valid response has been provided), or an auxiliary code (if a valid response has not been provided).

There are three auxiliary codes which can be used when a valid response has not been provided:

- **Not administered (N/A)**: This code is used when the respondent was unable to provide a response to a question due to problems with the survey instruments, such as printing errors or omissions, faulty cutting, folding or stapling, or missing booklet pages, etc. Note that if there were problems with the survey instruments, they should be reported in the Item Information for Cleaning document (section 0) when you submit your data.

- **Invalid**: This code is used when the respondent has provided an invalid response, such as circling or ticking two answers when they should only choose one, or including extraneous text that invalidates their response.

- **Missing**: This code is used when the respondent has not provided a response at all.

Table 53 lists the main ACER Maple variable types and their auxiliary codes.

Table 53: ACER Maple variable types used for the AMPL

Variable type	Auxiliary codes		
	N/A	**Invalid**	**Missing**
Open-ended (not coded)	9997	9998	9999
Multiple Choice (with ≤6 choices)	7	8	9
Multiple Choice (with >6 choices)	97	98	99
Complex multiple choice (3 choices treated as one response)	997	998	999
Complex multiple choice (4 choices treated as one response)	9997	9998	9999

10.2.2 Accessing the **Key in responses** *screen*

> ⚠ A data entry operator login must be used for the following function.

To enter a new response data record, or to search for and edit an existing record, data entry operators need to access the *Key in responses* screen as follows:

1. On the main screen select **Response data> Key in responses** and then click **Activate**. The *Key in responses* screen will appear (Figure 100).

From this screen you can:

▸ **Add a new record**, under the *New* tab; or

▸ **Search**, **Edit**, **Reset** or **Delete** existing records under the *Existing* tab.

The instructions for these actions are provided in the corresponding sections 10.2.3-10.2.7.

Figure 100: Key in responses screen

10.2.3 Add a new record

> A data entry operator login must be used for the following function.

To key in response data for a new record:

1. Follow the instructions on page 153 to access the *Key in responses* screen.

2. Ensure that the *New* tab is highlighted on the left-hand side of the screen.

3. The following fields must be filled for each new record being added:

   • **Pop Type**: select **students** if entering data for AMPL test booklets or Student Questionnaire; or **school principals** if entering data for the School Questionnaire.

- **Instrument**: select the survey instrument for which you will be entering data from the drop-down list.

- **Data Entry Template**: select the data entry template that corresponds to your selected survey instrument from the drop-down list.

4. Click **Add a new record**. The data entry template for the selected instrument will appear in a pop-up window (Figure 101).

   - The large yellow field at the top of the screen displays information about the variable currently selected for data entry, with the variable name, and variable type and validation rules (in brackets) listed on the left above the box. Information about the first variable in the template is displayed by default. It cannot be edited directly.

   - On the right above the large yellow field, the data entry operator can choose whether pressing the arrow keys on a keyboard can be used to move between response data fields. This option is selected by default. 'Tab' and 'Enter' keys can always be used to move to the next response data field.

   - Cover page variables (e.g. School Name, AMPL School Number, Student/Principal ID) are listed under the large yellow field at the top of the screen.

      ▶ Data entry operators can choose any combination of the listed cover page variables to be copied over to the next response data record, by checking the box next to the corresponding variable(s), listed in the Keep values for next drop-down list. This will save on time spent keying in this information for each record.

      ▶ Any cover page variable that will be copied over to the next response data record will have a ⚓ symbol appearing after the variable name.

Figure 101: New data entry template

5. Key in the required data into each field.

- Any fields containing data that violate validation rules will be highlighted in red. The record cannot be saved if any fields are red.

6. When all data has been entered and there are no red fields, click **Save & Next**.

7. A pop-up window will appear saying the data will be saved and asking if you want to continue. Click **OK**. ACER Maple then performs a number of validity checks on the data entered in the template.

The possible outcomes and required actions are described in Table 54.

Table 54: Possible outcomes when adding a new response data record in ACER Maple

Outcome	Next steps
- All fields are entered and ACER Maple found no discrepancies. - A pop-up window appears saying the record has been saved. It will automatically disappear after a few seconds. - All data fields are cleared for the next record to be keyed in. - The DEO does not intend to add any more records at this time.	1. Click **Cancel**. A pop-up message will appear warning that the data will not be saved. 2. Click **OK**. The *Key in responses* screen will return. 3. Click **Back** to return to the main screen.
- All fields are entered and ACER Maple found no discrepancies. - A pop-up window appears saying the record has been saved. It will automatically disappear after a few seconds. - All data fields are cleared for the next record to be keyed in. - The DEO needs to add another record.	1. Repeat steps 5 to 7 to add another record. 2. Follow the steps that correspond to the appropriate outcome described in this table.
- There is an error in the data entered. - A pop-up window appears describing the error that is preventing the data from being saved. It will automatically disappear after 10 seconds. It can also be closed manually by clicking 'X' in the top right corner.	1. Make any required corrections before clicking **Save & Next** again. 2. Follow the steps that correspond to the appropriate outcome described in this table.

10.2.4 Search

ACER Maple also includes a search function with the **Key in responses** function.

> A data entry operator login must be used for the following function.

To search the list of keyed in response data records by *instrument*, *identifier* (from cover page), the date the record was added to ACER Maple (*Added date*) or by DEO who added the record (*Added by*):

1. Follow the instructions on page 153 to access the *Key in responses* screen.

2. Ensure that the *Existing* tab is highlighted on the left-hand side of the screen.

3. Enter the information you wish to use to search the list of keyed in response data records (Figure 102). If all search terms are left blank, all keyed in records will be listed.

    - Select from the drop-down *Instrument* list to see all records entered for that instrument. The total number of records entered for each instrument appears in brackets next to the instrument name.

    - Enter a value for one of the identifier variables from the instrument cover page (eg AMPL school number, student/principal ID) to see all records matching that value.

    - Enter an appropriate "from-to" date range to show all records entered with that date range.

    - Enter the DEOID of a data entry operator to show all records entered by that operator.

Figure 102: Search keyed in data records

4. Click **Search**. All records matching the search terms that have been entered will be listed in the middle of the *Key in responses* screen (Figure 103). If no records match the entered search terms, the message "No data available in table" will display in the centre of the screen.

	School	Respondent No.	ID	Instrument	Added at	Added by	Admin	Action	
1	1005	08	18100508	1	2021-05-04 13:10:08	ZZAdeo1	01	Edit	Reset	Delete
2	1005	06	18100506	1	2021-05-04 13:09:42	ZZAdeo1	01	Edit	Reset	Delete
3	1005	04	18100504	1	2021-05-04 13:08:59	ZZAdeo1	01	Edit	Reset	Delete
4	1005	07	18100507	2	2021-05-04 12:55:08	ZZAdeo1	01	Edit	Reset	Delete
5	1005	01	18100501	2	2021-05-04 12:54:24	ZZAdeo1	01	Edit	Reset	Delete

Showing 1 to 5 of 5 entries   Previous   1   Next

Figure 103: Keyed in data record search results

10.2.5   Edit

This option allows data entry operators to make changes to an existing data record.

> ⚠️ A data entry operator login must be used for the following function.

To edit keyed in response data for an existing record:

1. Follow the instructions on page 153 to access the *Key in responses* screen.
2. Use the **Search** function (page 156) to locate the data record that needs to be changed. It will be listed in the centre of the screen.
3. Underneath the *Action* column heading, click **Edit**. The corresponding data entry template containing keyed in data will appear in a pop-up window (Figure 104).

Figure 104: Edit response data record

4. Make the required corrections to the data by directly editing the text in any field in the *Cover Page* or *Questions* section of the template.

   - The large yellow field at the top of the screen displays information about the variable currently selected for data entry, with the variable name, and variable type and validation rules (in brackets) listed on the left above the box. Information about the first variable in the template is displayed by default. It cannot be edited directly.

   - Any fields containing data that violate validation rules will be highlighted in red. The record cannot be saved if any fields are red.

5. When all data has been entered and there are no red fields, click **Save**.

6. A pop-up window will appear saying the data will saved and asking if you want to continue. Click **OK**. ACER Maple then performs a number of validity checks on the data entered in the template.

The possible outcomes and required actions are described in Table 55.

Table 55: Possible outcomes when editing a response data record in ACER Maple

Outcome	Next steps
• All fields are entered and ACER Maple found no discrepancies. • A pop-up window appears saying the record has been saved. It will automatically disappear after a few seconds. • The DEO does not need to edit any more records.	1. Click **Back** to return to the main screen.
• All fields are entered and ACER Maple found no discrepancies. • A pop-up window appears saying the record has been saved. It will automatically disappear after a few seconds. • The DEO needs to edit another record.	1. Repeat steps 2 to 6 to edit another record. 2. Follow the steps that correspond to the appropriate outcome described in this table.
• There is an error in the data entered. • A pop-up window appears describing the error that is preventing the data from being saved. It will automatically disappear after 10 seconds. It can also be closed manually by clicking 'X' in the top right corner.	1. Make any required corrections before clicking **Save** again. 2. Follow the steps that correspond to the appropriate outcome described in this table.

10.2.6   Reset

The reset function deletes all keyed in response data for a record, without deleting their cover page identifiers, so that an "empty" record is retain in the database.

> ⚠ A data entry operator login must be used for the following function.

To reset the keyed in data for an existing record:

1. Follow the instructions on page 153 to access the *Key in responses* screen.
2. Use the **Search** function (page 156) to locate the data record that needs to be changed. It will be listed in the centre of the screen.
3. Underneath the *Action* column heading, click **Reset**. A pop-up message will appear warning that the response data for the specified record will be reset to empty (Figure 105).

Figure 105: Reset response data warning

4. Click **OK**. Another pop-up message will appear saying the record has been updated. It will automatically disappear after a few seconds.

5. To re-enter data for the reset record, click **Edit** (underneath the *Action* column heading), and follow the instructions on page 158 to edit the empty record (Figure 106)

Figure 106: Response data record after being reset

10.2.7 *Delete*

> ⚠️ A data entry operator login must be used for the following function.

To delete an existing response data record from ACER Maple:

1. Follow the instructions on page 153 to access the *Key in responses* screen.

2. Use the **Search** function (page 156) to locate the data record that needs to be deleted. It will be listed in the centre of the screen.

3. Underneath the *Action* column heading, click **Delete**. A pop-up message will appear warning that the selected record will be deleted (Figure 107).

127.0.0.1 says

The selected record (1-18100508) will be deleted.
Do you want to continue?

OK   Cancel
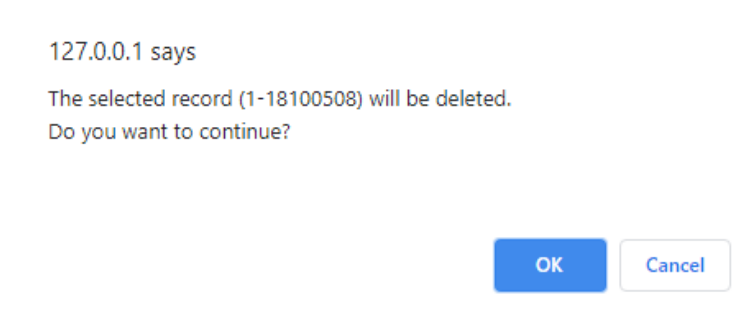
Figure 107: Delete response data record warning

4. Click **OK**. Another pop-up message will appear saying the record has been deleted. It will automatically disappear after a few seconds.

10.3   Validating Respondent List

After all response data has been successfully entered into ACER Maple, it needs to be checked against the student and school questionnaire tracking data updated in ACER Maple.

> Every <u>data administrator</u> **must** validate respondent list for their domain AFTER:
>
> - ALL tracking data in the domain has been updated; and
> - ALL response data in the domain has been keyed in.
>
> Each <u>data manager</u> **must** validate respondent list for the entire entity AFTER ALL data administrators validated data in their domains, but BEFORE data is submitted.

> The data administrator or the data manager login can be used for the following function.

To validate response data against student and school questionnaire tracking data:

1. On the main screen select **Response data > Validate respondent list** and then click **Activate**. The *Validate respondent list* screen will appear (Figure 108).

students (MILO test)

Description	1	2	Total
Data entry template acronym	1	2	
Tracked as participated	14	11	25
Entered as respondents	14	11	25
Records in both	14	11	25

students (MILO Student Questionnaire)

Description	StQ	Total
Data entry template acronym	StQ	
Tracked as participated	25	25
Entered as respondents	25	25
Records in both	25	25

students (National or Regional assessment)

Description	KEN7	ZMB5	PASEC6	Total
Data entry template acronym	KEN7	ZMB5	PASEC6	
Tracked as participated	25	0	0	25
Entered as respondents	25	0	0	25
Records in both	25	0	0	25

school principals (MILO School Questionnaire)

Description	ScQ	Total
Data entry template acronym	ScQ	
Tracked as participated	3	3
Entered as respondents	3	3
Records in both	3	3

Figure 108: *Validate respondent list* **screen**

2. A summary of the keyed in data is provided in the middle of the screen. The following information is listed for each instrument:

   - The number of students/schools listed as participating (for the listed instrument) in the appropriate tracking form;

   - The number of students/schools that have had data entered into the listed instrument; and

   - The number of records in both. If all data for the listed instrument has been entered correctly, the three numbers will be the same.

3. On the left-hand side of the screen you can select or deselect the instruments that you want to validate.

   - The first time you validate response data, ensure that all instruments are selected.

   - On subsequent occasions, you may choose to only validate response data for instruments that contained errors that you have tried to correct.

   - You should **validate response data for all instruments one final time** before submitting your data to ACER.

4. Click **Validate data for selected instrument(s)**. Two pop-up messages will appear, the first asking if you have entered all response data, the second all tracking data. Click **Yes** for both. ACER Maple then performs the validity checks.

    The possible outcomes are required actions are described in Table 56.

Table 56: Possible outcomes when validating respondent list data

Outcome	Next steps
• The data has been validated with no discrepancies • A pop-up message appears saying the validation has been successful	1. Click **Dismiss.** 2. Click **Back** to return to the main screen.
• The data contains some discrepancies that need to be checked or corrected • A pop-up message appears saying the data contains errors and/or warnings • *Respondent List Validity Report* is available for download	1. Click **Download Validity Report**, save the file in an appropriate location. Click Cancel to close the pop-up message. 2. Manually enter or navigate to the location of the saved report and open it. 3. Refer to section 10.4.2 to check the records that appear in the report. 4. If any corrections are required, make them in the corresponding tracking forms and/or data entry templates. 5. Explanations of warnings listed in the report must be entered into the report by the data manager before data can be submitted (see section 11.1)

10.4   Respondent List Validity Report

If there are discrepancies between the response data that has been keyed in by data entry operators and corresponding student or school tracking information, ACER Maple will produce a *Respondent List Validity Report* (in Excel format) that contains information about these issues. Before you try to resolve them, make sure you have the relevant tracking forms and assessment instruments handy.

There are two types of data inconsistencies listed in the report: errors and warnings. Errors and warnings in the report are organised into separate spreadsheets. Spreadsheet names clearly indicate which type of discrepancy the spreadsheet lists.

> The *Respondent List Validity Report* can contain multiple worksheets. Make sure you have checked the records in **all** worksheets in the report.

10.4.1   Errors in Respondent List Validity Report

Table 57 (page 166) lists errors that may appear in particular Error worksheets of the *Respondent List Validity Report.* Table 57 also explains how these errors can be resolved.

> Column names in square brackets appearing in messages within the report, such as [AMPL School No.] and [Line No.], will be replaced by the translated column names for LST_FRE.

After all corrections have been made in the appropriate data, attempt to validate the respondent list again. Your database cannot be submitted to ACER until all errors have been resolved and all warnings explained.

10.4.2   Warnings in Respondent List Validity Report

Table 58 (page 166) lists discrepancies that may appear in Warning worksheets of the *Respondent List Validity Report* and explains how they can be resolved.

Table 57: Respondent List Validity Report: Error worksheets – Possible errors and their resolutions

Description	Warning message in report	How to resolve	Action required
<Instrument Name> (Error) worksheet			
One or more respondents are listed as participating in the tracking data but there is no data entered for them in the corresponding survey instrument	*Recorded as participating or attending instrument <Instrument ID> in tracking data, but is not entered in this instrument*	• Check the values in that column in the appropriate tracking Excel file. • Check the paper instruments for any instruments that may have been missed during data entry. • Contact the school to locate any missing instruments, or to verify information in STF.	• Correct any errors in tracking data and update tracking in ACER Maple OR • Enter any missing records into corresponding assessment instrument template in ACER Maple
Data is entered for a respondent in a survey instrument, but the respondent is listed as not participating in the tracking data	*Response data is entered, but respondent is not recorded as participating or attending instrument <Instrument ID> in tracking data*	• Check the values in that column in the appropriate tracking Excel file. • Check the paper instruments for any errors made during data entry • Contact the school to verify information in STF.	• Correct any errors in tracking data and update tracking in ACER Maple OR • Correct or remove incorrect instrument records from ACER Maple

Table 58: Respondent List Validity Report for student lists: Warning worksheets – Possible warnings and their resolutions

Description	Warning message in report	How to resolve	Action required
<Instrument Name> (Warning) worksheet			
One or more respondents have data entered in one survey instrument but in the tracking data assigned a different survey instrument (only possible for rotated AMPL Booklets)	*Candidate was allocated <Instrument ID 1> in tracking data, but data entered into <Instrument ID 2>*	• Check that the student was accessed using the paper instrument that the data was entered into. • Enter student data into correct instrument there was a data entry mistake made in ACER Maple • Contact the school to get information on why different instrument was given to the student.	• Correct or remove incorrect instrument records from ACER Maple OR • Save the report excel file produced by ACER Maple • Specify the reason for assigning assessment instrument different from what specified in tracking form and save the report Excel file.

11 DATA SUBMISSION TO ACER

> ⚠️ Data manager should perform the tasks described in this chapter.

11.1   Explaining Warnings

Due to the complexity of test administration and data processing in large scale surveys, it is possible that some discrepancies reported by ACER Maple are actually valid data. These inconsistencies are listed in various validity reports as ***warnings***. Therefore, the presence of warnings in validity reports will not prevent the **Submit data** function from being enabled in ACER Maple, but explanations must be provided to the ACER data management team as to how these inconsistencies occurred.

It is essential for the data manager to provide explanations for all warnings that remain in any validity report, once those reports have been checked and any corrections to the data have been made. There are two validity reports may contain warnings:

1. *Update Institution Participation Validity Report* produced when school participation information is imported into ACER Maple (sections 9.6 and 9.7); and

2. *Respondent List Validity Report* produced after all participant responses have been entered into their corresponding assessment instruments (sections 10.3 and 10.4).

> ⚠️ Errors listed in the validity reports produced by ACER Maple will prevent users from completing the corresponding task and the **Submit data** function will not be enabled.

It is possible ACER Maple did not produce one (or both) report(s) when the corresponding data management tasks were performed. This means there were no inconsistencies found in the data for the corresponding task. If the validity reports were not produced they do not need to be included in the data submission package (see section 11.4 for information about the content of the data submission package). The appropriate option should be ticked/checked (i.e. 3 - "No Warnings") when completing questions Q4.1 and Q4.2 in the Data Submission Checklist document (see section A1.2).

11.1.1   *Explaining warnings in the Update Institution Participation Validity Report*

All warnings that remain in the *Update Institution Participation Validity Report* after you have successfully updated school participation for all schools (see section 9.6 and 9.7) must be explained in the validity report Excel file.

> If the *Update Institution Participation Validity Report* was not produced when school participation was updated in ACER Maple (see section 9.6.2), this step is not required.

To explain any warnings listed in the *Update Institution Participation Validity Report*:

1. Manually enter or navigate to the location of the latest saved version of the *Update Institution Participation Validity Report* Excel file.

2. Locate the first empty column adjacent to the cells containing data saved by ACER Maple (e.g. column C in Figure 109).

3. Add the column heading "Explanations" (see Figure 109).

4. Provide an explanation for each record listed in the report (see Figure 109).

5. Save a new version of the validity report with "_Explained" added to the end of the file name. Ensure that the new file is saved in an appropriate location to be included with your database submission package.

Figure 109: Filling up Update Institution Participation Validity Report Excel file

The *Update Institution Participation Validity Report* will be reproduced by ACER staff upon receipt of the database submission package for each participating country. ACER reserves the right to not accept any database submission if the records listed in the validity report produced by ACER do not correspond to the explanations provided in the validity report Excel file included with your database submission package.

> If there are records in the *Update Institution Participation Validity Report* Excel file, **each** of them must be explained in the 'Explanations' column.

11.1.2 Explaining warnings in the Respondent List Validity Report

> If the *Respondent List Validity Report* was not produced when respondent list data was validated in ACER Maple (see section 10.3), this step is not required.

All warnings that remain in the *Respondent List Validity Report* after you have successfully validated respondent list data (see sections 10.3 and 10.4) must be explained in the validity report Excel file.

To explain any warnings listed in the *Respondent List Validity Report*:

1. Manually enter or navigate to the location of the latest saved version of the *Respondent List Validity Report* Excel file.

2. Locate the first empty column adjacent to the cells containing data saved by ACER Maple (e.g. column C in Figure 110).

3. Add the column heading "Explanations" (see Figure 110).

4. Provide an explanation for each record listed in the report (see Figure 110)

5. Save a new version of the validity report with "_Explained" added to the end of the file name. Ensure that the new file is saved in an appropriate location to be included with your database submission package.

Figure 110: Filling up Respondent List Validity Report Excel file

The *Respondent List Validity Report* will be reproduced by ACER staff upon the receipt of the database submission package for each participating country. ACER reserves the right to not accept any database submission if the records listed in the validity report produced by ACER do not correspond to the explanations provided in the validity report Excel file included with your database submission package.

> If there are records in the *Respondent List Validity Report* Excel file, **each** of them must be explained in the 'Explanations' column.

11.2   Data Submission Schedule

The data must be submitted to ACER within eight weeks of the completion of assessment.

11.3   Checking that ACER Maple Data is Ready for Submission

Once all required data has been successfully entered into ACER Maple and all errors has been corrected in ACER Maple, the **Submit data** function will be enabled. This function will combine all data files necessary for submission into a single zip file, which you will upload to your MS teams NC directory, Data Management folder.

> **!** A data manager login must be used for the following function.

To check that ACER Maple data is ready for submission to ACER:

1. On the main screen select **Final tasks > Submit data** and then click **Activate**. The *Submit data* screen will appear (Figure 111).
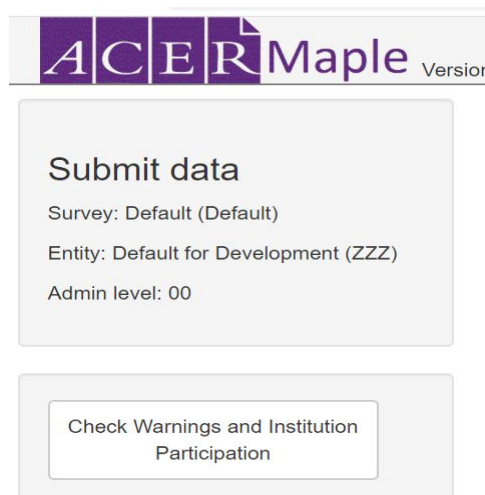
Figure 111: *Submit data* **screen**

2. Click **Check Warnings and Institution Participation**. ACER Maple then performs a number of checks. The possible outcomes and required actions are described in Table 59.

Table 59: ACER Maple messages when checking warnings and institution participation

Message	Action required
Your warnings and participation files are incomplete. Once these are finalised you will be able to export your data for submission.	1. Update school participation in ACER Maple so that no errors are listed in *Update School Participation Validity Report* (section 9.6). 2. Resolve all errors are listed in *Respondent List Validity Report* (section 10.4.1). 3. Attempt to submit the data again.
Your warning and participation files have been completed, you can now export your data for submission.	1. Take a screenshot of ACER Maple and save the picture in an appropriate location, as explained in the note below. The saved picture will need to be inserted into the **Data submission Checklist** document (see section A1.2). 2. After the screenshot has been saved, click **Export.** All required data files will be combined into a single zip file which will be available for download. 3. Select 'Save File' and save the zip file in an appropriate location.

> To take a screenshot:
> 1. Press the 'Alt' and 'PrintScn' keys on your keyboard simultaneously.
> 2. Open the Paint app.
> 3. Press the 'Ctrl' and 'V' keys on your keyboard simultaneously (i.e. 'paste' function).
> 4. Save a copy of the file in an appropriate location.

3. After the screenshot and data has been saved follow the steps in section 11.4.

11.4 Delivery Method

To deliver your complete data submission package to ACER:

1. Complete the *Item Information for Cleaning* documents (see section A1.1) and the *Data Submission Checklist* (see section A1.2)[17].

   ‣ Summarise information from the Session Reports and provide responses to all questions in the *Item Information for Cleaning* document.

   ‣ Paste the screenshot of the ACER Maple message (see section 11.3) into the *Data Submission Checklist*.

   ‣ Provide responses to all questions in the *Data Submission Checklist*.

2. Add your 3-letter NC code to the file name of the zip file exported from ACER Maple in section 11.3.

3. Login to MS Teams and locate the Data Management folder within your NC directory.

4. Within the Data Management folder for your NC, upload the database submission package that includes the following:

   ‣ **Submit_Data_<Date_Time>_[CNT].zip** file as exported from ACER Maple

   ‣ Completed **Data Submission Checklist** document (MS Word document) (section A1.2)

---

[17] The Word versions of these checklists can be found in the MS teams>AMPL Partner Collaboration>COVID-19 MILO>MILO International resources>Data Management Resources

- ‣ Completed *Item Information for Cleaning* document (MS Word document) (section A1.1)
- ‣ Completed *Update Institution Participation Validity Report* (MS Excel spreadsheet), if applicable (section 11.1.1)
- ‣ Completed *Respondent List Validity Report* (MS Excel spreadsheet), if applicable (section 11.1.2)

5. Send an e-mail to Maple Helpdesk <maplehelpdesk@acer.org> with the subject line "Data is ready for submission" and your 3-letter NC code in square brackets (i.e. [CNT]).

> ACER Maple only exports data necessary for analysis and reporting. This does not include confidential information, such as names collected by your NC during the AMPL survey.
>
> Please keep the latest version of ACER Maple that was used to export data for submission, in case it is needed for future checks.

11.5   Data Cleaning Participation

Please designate a data manager who will work actively with ACER during the data processing. This person should be able to respond to any queries in a timely manner during a period of four to six weeks after database submission to ACER.

Please do not hesitate to contact Alla Routitsky at <alla.routitsky@acer.org> and/or Alex Daraganov, Alexander.Daraganov@acer.org (cc to Maple Helpdesk <maplehelpdesk@acer.org>) if you have any questions regarding data submission.

APPENDIX 1   DATA SUBMISSION CHECKLISTS

The *Item Information for Cleaning* and *Data Submission Checklist* word documents have been uploaded into the *MS Teams>AMPL Partner Collaboration>Data Management* folder. Please download the updated documents and use them in your data submission.

Please fill these documents and include them into data submission package to ACER (see section 11.4).

> **Please DO NOT use any other versions of these documents as they have been modified since the release of the software.**

A1.1 Item Information for Cleaning

ITEM INFORMATION FOR CLEANING

> Please complete this form and return it <u>with your data</u>.

Country _____

NPM _____

e-mail _____

Data manager _____

e-mail _____

> You may need to summarise relevant information from the <u>Session Reports</u> returned by Test Administrators to be able to answer the following questions.

Q1   **Were there any problems with the test booklets?**   YES   NO

□₁   □₂

For example poor printing; errors or omissions; missing pages; faulty cutting, folding or stapling

If 'Yes', please describe the nature and extent of the problem.

_____

_____

_____

_____

_____

_____

> In Q2 use as a booklet muber 1 and 2 for AMPL test booklets 1 and 2 respectively, and 3 for national or regional test.

Q2 **Were there any problems with specific test items?** YES NO

☐₁ ☐₂

For example errors or omissions, problems with graphics.

If 'Yes', please identify the booklet number, item number and student ID, and describe the problem.

If an item has a problem for a large number of students, please describe this problem in Q1 providing the booklet number, the item number, and the number of students effected

Booklet	Item	Student ID	

Q3 **Were there any problems with the questionnaires?** YES NO

☐₁ ☐₂

For example poor printing; errors or omissions; missing pages; faulty cutting, folding or stapling

If 'Yes', please describe the nature and extent of the problem.

_____

_____

_____

_____

_____

Q4 **Were there any problems with specific student questionnaire items?**   YES   NO

☐₁   ☐₂

For example errors or omissions, problems with graphics.

If 'Yes', please identify the item number and student ID, and describe the problem.

If an item has a problem for a large number of students, please describe this problem in Q3 providing the booklet number, the item number, and the number of students effected

Item	Student ID	

Q5 **Were there any problems with specific school questionnaire items?**   YES   NO

☐₁   ☐₂

For example errors or omissions, problems with graphics.

If 'Yes', please identify the item number and principal ID, and describe the problem.

If an item has a problem for a large number of principals, please describe this problem in Q3 providing the booklet number, the item number, and the number of students effected

Item	Principal ID	

Q6   **Please notify us about any other matter that may require additional data cleaning**

_____

_____

_____

_____

_____

_____

THANK YOU!

A1.2 Data Submission Checklist

DATA SUBMISSION CHECKLIST

Please note that this is a checklist only. Please refer to Chapter 11 of this manual for more information

Please insert a screenshot from data submission screen in ACER Maple here:

Q1   Have ALL of your required data been entered into ACER Maple?   YES   NO

Required data: ☐₁   ☐₂

- List of Classes
- AMPL test booklets
- List of Students
- Student Questionnaire
- Student Tracking Forms
- School Questionnaire
- School Questionnaire Tracking Form

If 'No', please enter ALL the data BEFORE you proceed with data submission

Q2   Have you entered student details in your ACER Maple List of Students for sampling?   YES   NO

☐₁   ☐₂

If 'No', please upload a complete set of hard copies of LSTs to:
MS teams>AMPL Partner Collaboration>{Your country folder}>Data Management

Q3.1   Have you explained ALL warnings in the Validate Respondent List Report?   YES   NO   NO WARNINGS

☐₁   ☐₂   ☐₃

If 'No', please explain warnings in the latest Excel output of your Validate Respondent List Report BEFORE you submit your

Data submitted without Validate Respondent List Report or without warnings explained will not be cleaned within the timeframe.

Please contact Alla Routitsky at: *Alla.Routitsky@acer.org* **(cc** *maplehelpdesk@acer.org***) if you have any questions about validity reports**

Q3.2   Have you explained ALL warnings in the *Update Institution Participation Validity Report*?   YES   NO   NO WARNINGS

☐₁   ☐₂   ☐₃

If 'No', please explain warnings in the latest Excel output of your *Update Institution Participation Validity Report* BEFORE you submit

Data submitted without all warning explained in *Update Institution Participation Validity Report* will not be cleaned within the timeframe.

Please contact Alla Routitsky at: *Alla.Routitsky@acer.org* **(cc** *maplehelpdesk@acer.org***) if you have any questions about validity reports**

Q4   Have you summarised Item Information for Cleaning?   YES   NO

☐₁   ☐₂

If 'No', please summarise item information BEFORE you submit your data.

Q5   Please check that you included all materials required for submission: **Included**

ACER Maple Database extracted for data submission   ☐

Final version of the Validate Respondent List Report (with warnings explained)   ☐

Final version of the *Update Institution Participation Validity Report* (with warnings explained)   ☐

Item Information for Cleaning   ☐

Q6   **Please notify us about any other matter that may require additional data cleaning**

_____

_____

_____

_____

_____

_____

THANK YOU!

APPENDIX 2   TROUBLESHOOTING

A2.1 Installation Troubleshooting

Manual exception configuration in the LAN settings to bypass the proxy

This section explains how to configure exception in the LAN settings of the chosen browser (**Google Chrome** or **Mozilla Firefox**) on each PC to bypass the proxy when connecting to the IP of the PC hosting ACER Maple.

1. Google Chrome

1.   Go to 'Settings' > 'Advanced'.

2.   Scroll down to the 'System' section and click **Open proxy settings** (Figure 112).
     The 'Internet Properties' > 'Connections' window will appear (Figure 113).
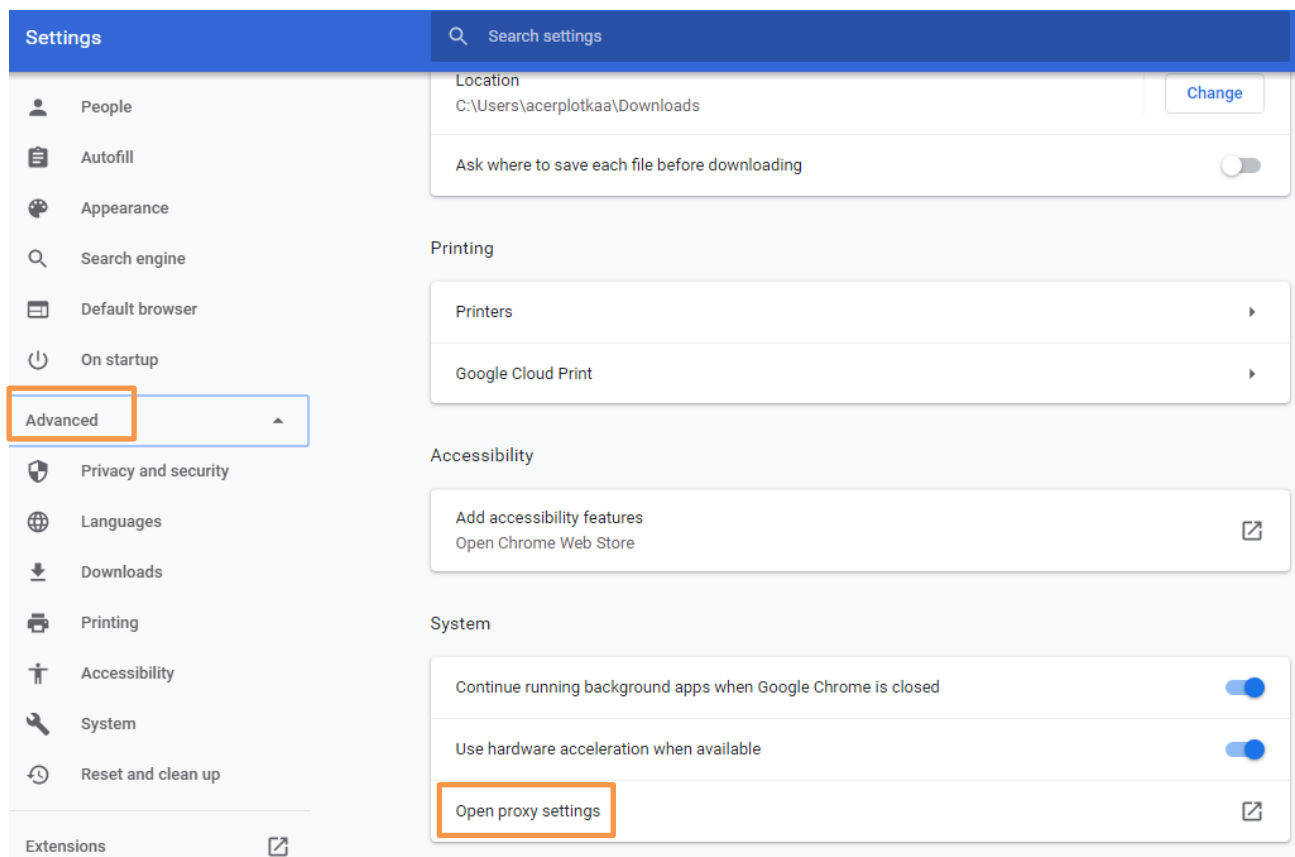
Figure 112: Google Chrome Advanced Settings
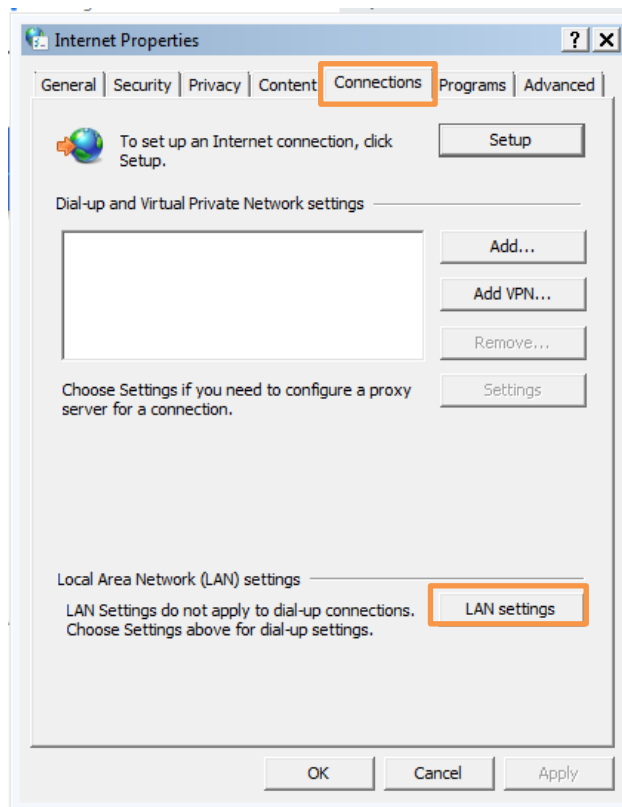
Figure 113: Google Chrome Internet Properties > Connections

3. Click **LAN Settings**. The Local Area Network (LAN) Settings window will appear.

4. Deselect 'Use automatic configuration script' and select 'Use a proxy server for your LAN'. Then in the **Address** field enter the IP address and port of the proxy server (as advised by your network administrator) (Figure 114**Error! Reference source not found.**).
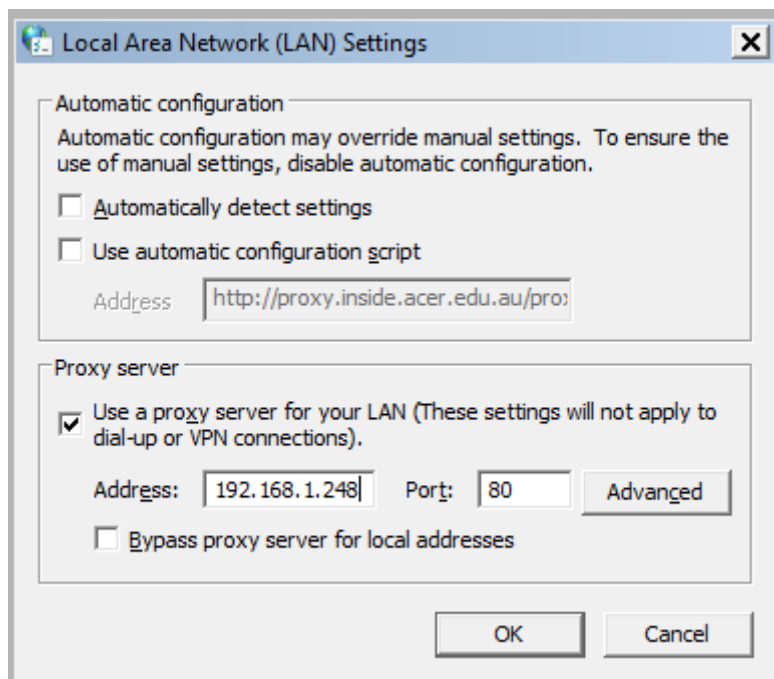
Figure 114: Local Area Network (LAN) Settings

5. Click **Advanced.** The 'Proxy Settings' window will appear.

6. In the **Exceptions** field enter the IP address of the host PC (Figure 115).
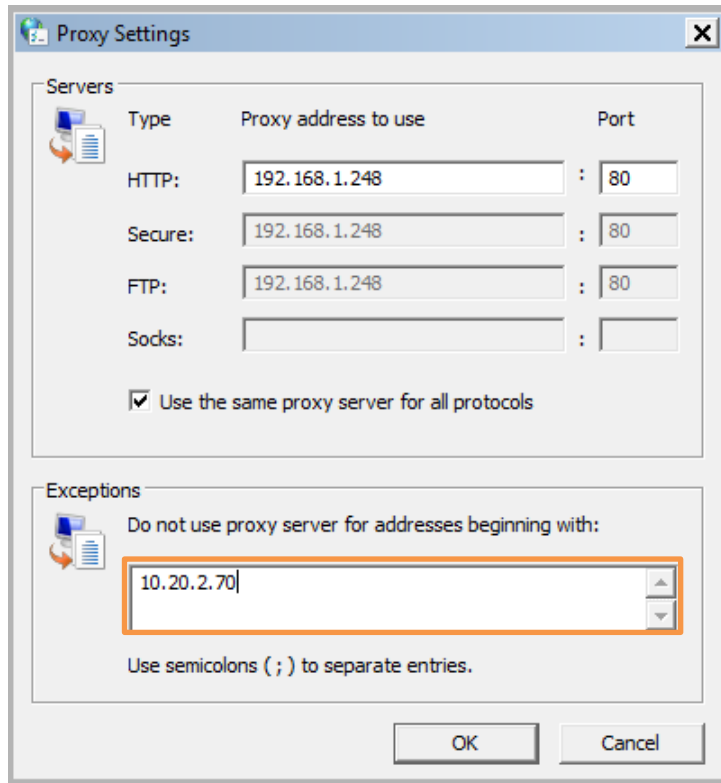
Figure 115: Proxy Settings

7. Click **OK** three times to exit the Internet Properties windows.

Mozilla Firefox

1. Go to **Options** and scroll down to the Network Settings or Network Proxy section (Figure 116).
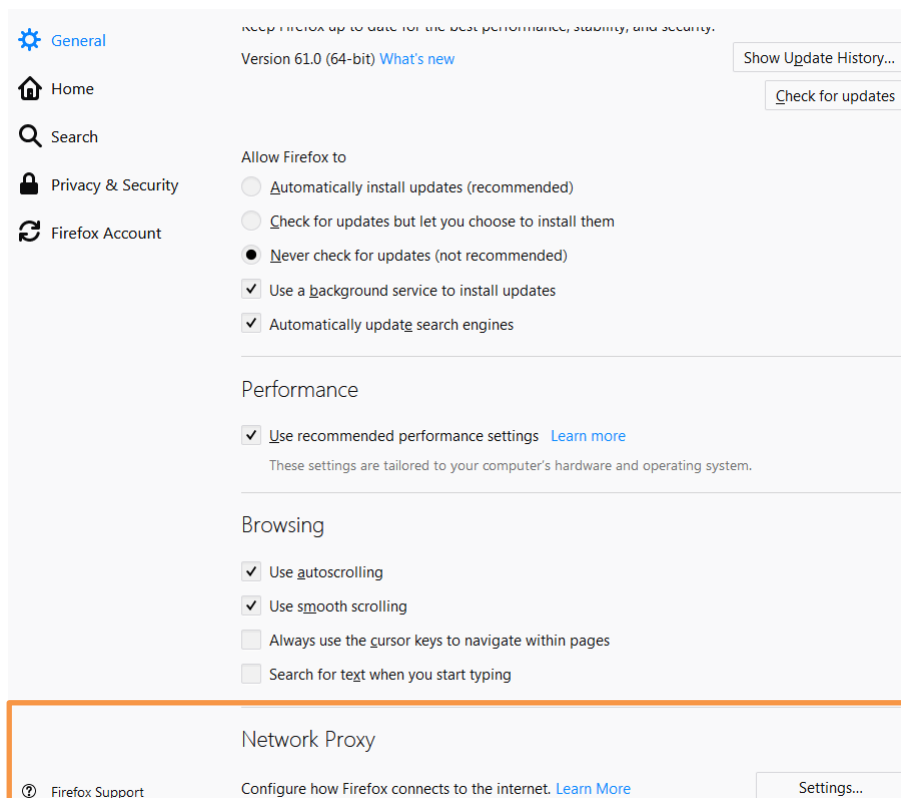
Figure 116: Mozilla Firefox Options – Network Proxy section

2. Click **Settings**. The Connection Settings window will appear.

3.   Select 'Manual proxy configuration' and in the **No proxy for** field enter the IP address of the host PC (Figure 117).
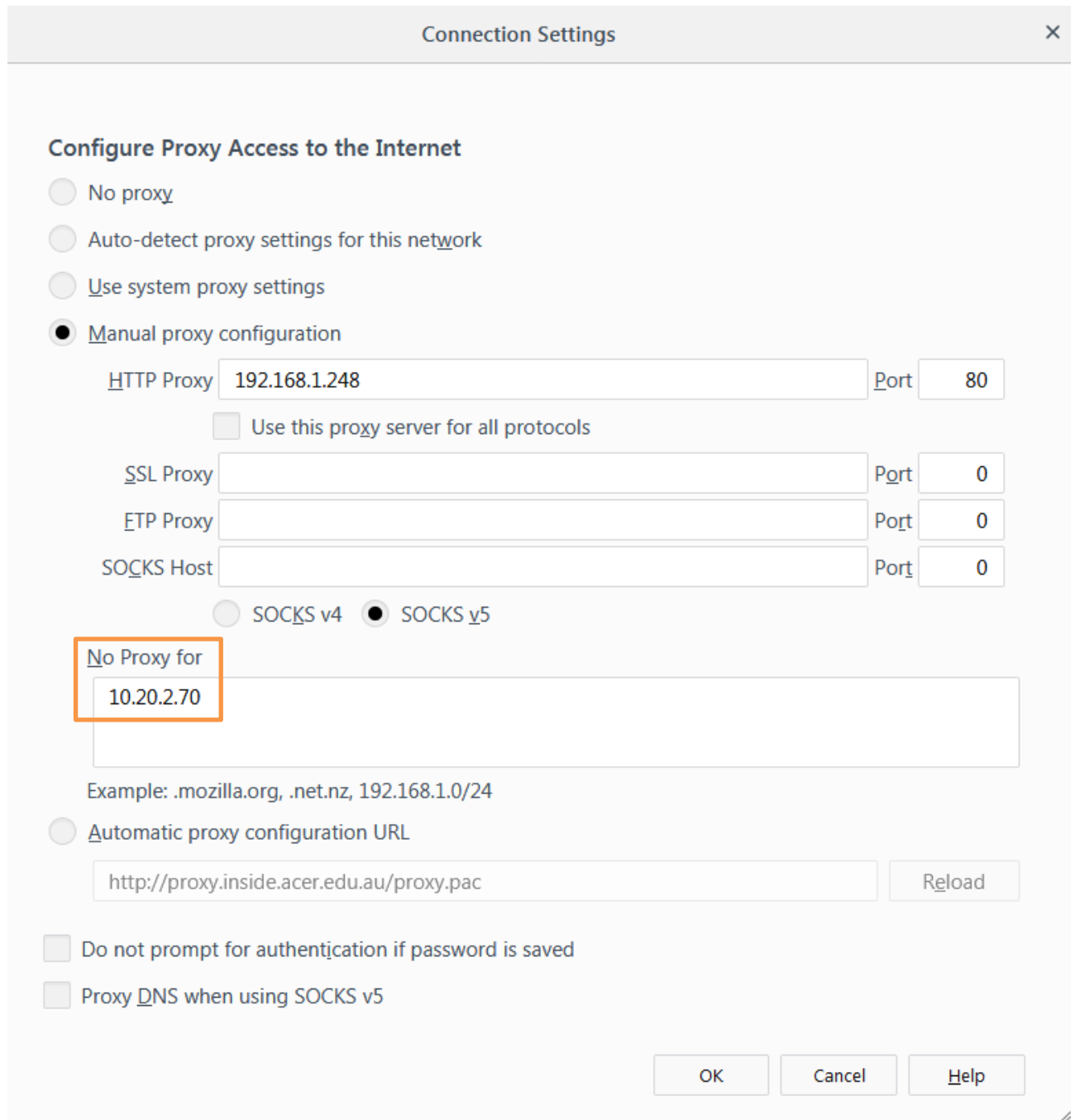
Figure 117: Mozilla Firefox Connection Settings

4.   Click **OK** and then close the Options tab.

Network policy restrictions

If you have problems during installation and the log file in …\ACER_MAPLE_V<#>\shiny\ShinyAppMsg.log has a line: "createTcpServer: permission denied", then you are most likely experiencing the network policy restrictions: port 80 is blocked (reserved for internet protocols) and not available to the ACER Maple.

To change the port:

1.   go into ACER Maple installation folder …\ACER_MAPLE_AMPL\shiny\acer_maple;

2.   open the file called 'run_app_basic.R' using any text editor (say, Notepad);

on line 13 you will see the code starting from 'shiny::shinyAppFile …'

3. replace line 13 in the file with the line:

shiny::shinyAppFile("app_basic_structure.R", options = list(shiny.port = 8000, port = 8000, host = "0.0.0.0", launch.browser = T));

4. save the run_app_basic.R file;

5. after the file is saved, try to start ACER Maple (same way as before).

After this modification, every time when you connect to ACER Maple, specify the port in the URL address as: 127.0.0.1:8000.

"Not in a hypervisor partition" error

If you see a pop-up error message saying "**Not in a hypervisor partition**" instead of the purple UBUNTU window, please follow below steps to solve the issue.

The error message
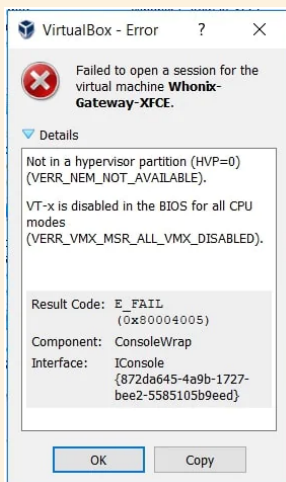
The solution

Step 1. Restart your laptop or desktop computer. Then, press the **BIOS key** when the boot screen appears to enter BIOS mode. (*The BIOS key is usually the "ESC" key on the keyboard, but different computer models may have different BIOS keys*)
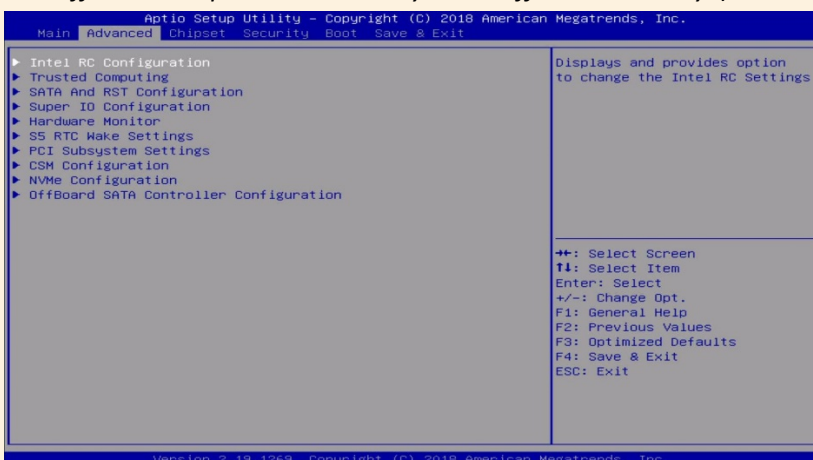
Step 2. Use the arrow keys to navigate the Configuration tab in the BIOS interface, where you can find the virtualization.
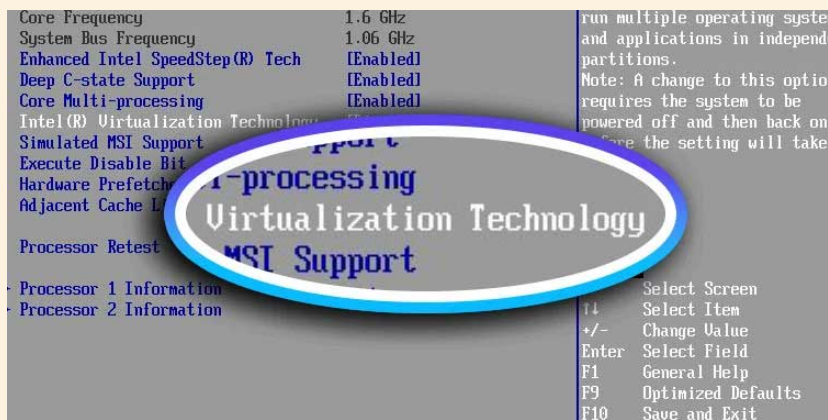
Step 3. Once you've located the virtualization item (IVT, AMD-V, or something related to virtualization), press Enter to confirm that it is enabled.
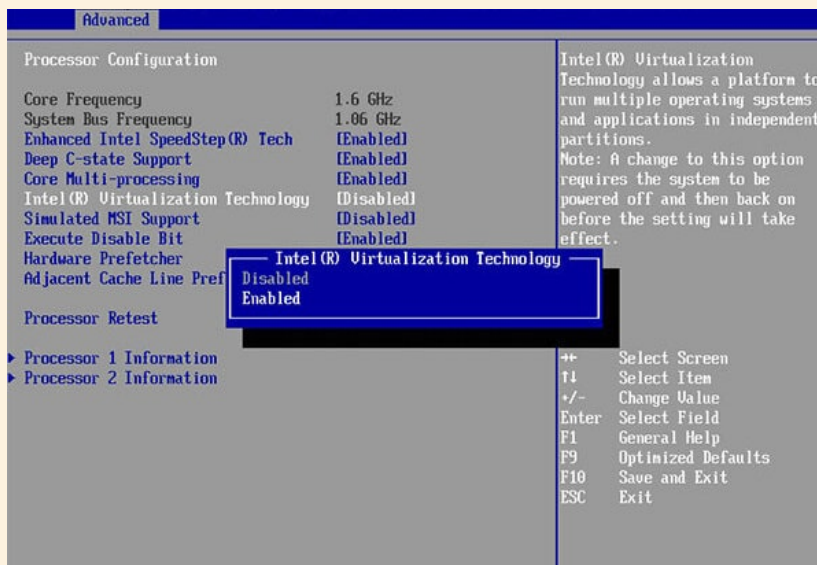
Step 4. Click F10 to save your changes and exit BIOS.

After enabling Virtualization in BIOS, restart your computer to restart the virtual machine in VirtualBox. You will open this VM smoothly this time.

A2.2 Resetting forgotten password

> Only data managers can reset forgotten passwords. Data administrators must ask their data manager to reset their forgotten password for them.

To reset a forgotten password:

1. Open ACER Maple:
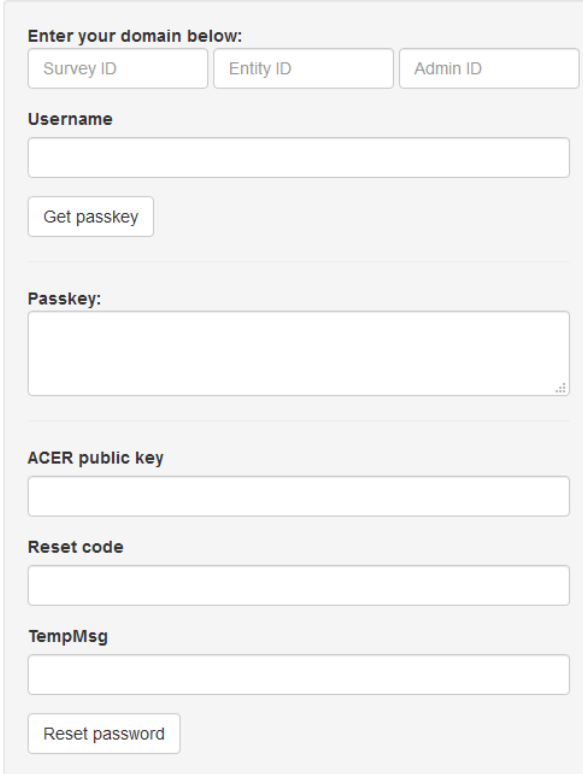
-   If using single user deployment, in **ACER_MAPLE_V<#>** folder double-click ***acer_maple_start.bat***.

-   If using multiple user deployment, paste the IP address of the host PC into the address bar of a browser.

    The Login screen will appear (Figure 118).

Figure 118: ACER Maple *Login* screen

2. **If you are a data manager,** on the left-hand side of the *Login* screen under 'Help', click **Forgot password**. The *Reset Password* screen will appear (Figure 119).

Figure 119: *Reset Password* **screen**

3. Enter your domain: Survey ID (033), Entity ID (6 digits) and Admin ID (00).

4. Enter your username.

5. Click **Get passkey**. A passkey will appear in the **Passkey** field.

6. E-mail the passkey, domain and username to Maple Helpdesk maplehelpdesk@acer.org.

7. You will receive an e-mail from ACER containing the data required for the fields **ACER public key**, **Reset code** and **TempMsg**. Due to the time difference between your country and Australia, it may take up to 24 hours to receive this e-mail.

8. After you receive e-mail from ACER, enter the ACER public key, reset code and TempMsg into the relevant fields.

9. Click Reset password.

10. Your password will be reset, and a temporary password will appear in a pop-up message.

11. Copy the temporary password.

12. Click **Back**.

13. On the left-hand side of the *Login* screen under 'Help', click **First time login**.

A2.3 Restoring Data in ACER Maple

ACER Maple can back up the entire database every time a user clicks **Quit** if this user clicks **YES** on the prompt asking whether the user wants to back up the data. The data backed up earlier on the same day will be overwritten. The data backed up the previous day is retained. If there is a need to keep data backed up earlier on the same day, the sub-folder within the 'Backup' folder with the current date should be copied to a secure location before the new data is backed up.

All backups of the database are stored in the '…****ACER_MAPLE_V<#>\shiny\backups' folder. The database backed up on a particular date is stored in the subfolder db_backup_<Date>.
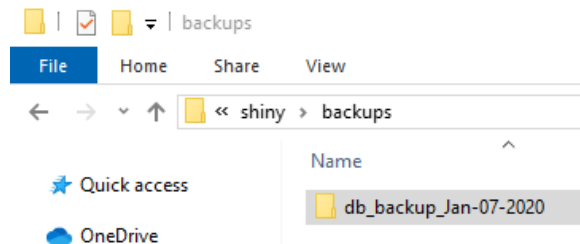
Figure 120: Subfolder with database backed up 07Jan 2020

The actual backup consists of two database files: *maple_database.db* and *maple_conf_database.db* (Figure 121**Error! Reference source not found.**)
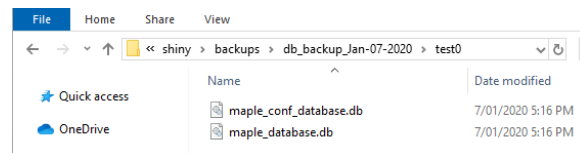
Figure 121: Database files in subfolder backed up 07Jan 2020

A subfolder with the username may also be created if the user clicked **Quit** button after he/she logged into ACER Maple.

To restore the data in ACER Maple to the version backed up earlier, each of the two files needs to be copied into the ACER Maple folders that store the database files:

- *maple_database.db* should replace the file with the same name in the …\shiny\tables folder; and

- *maple_conf_database.db* should replace the file with the same name in the …\shiny\confidential_tables\ folder.

A2.4 Re-sampling students.

You may need to re-sample students from a school if the initial student list was incorrect and you are sure there is enough time to produce new tracking forms, and send these updated forms to the school before the test day. In this case, make sure that all old tracking form versions are deleted by you and the School Co-ordinator before you start the process.

> ⚠ **Do not re-sample students unless this has been agreed with ACER.**

> ⚠️ A data administrator login must be used for the following function.

To re-sample students and allocate instruments to students:

1. On the main screen select **Sample and allocate instruments > Sample and allocate** and then click **Activate**. The *Sample and allocate instruments* screen will appear (Figure 65).

2. In the **Select Population Type** box select students.

3. In the **Select Combined Option** box select the combined option available

4. In the **Select School Type** list select '*Already sampled*'.

5. Click **List Available Institutions to Sample**. In the **Available for Sampling** box the AMPL School Number of all schools which are available for sampling for the selected population type and combined option will be listed (Figure 66).

Figure 122: Schools available for sampling listed in the Available for Sampling box

6. In the **Available for Sampling** box select the AMPL School No. of all schools to be sampled. Use Shift and/or Ctrl to select multiple schools as required (Figure 67).

Figure 123: Selecting multiple schools in the Available for Sampling box

7. Click ➡ to move these schools into the **Selected for Sampling** box (Figure 68). To remove schools from the **Selected for Sampling** box select the AMPL School No. in this box and then click ⬅. Once schools have been added to the **Selected for Sampling** box the **Sample** button will appear.

Figure 124: Multiple schools moved to the Selected for Sampling box

8. Click **Sample**. ACER Maple will sample and allocate instruments to the selected population for the selected combined option in the selected schools.

During the sampling and instrument allocation process ACER Maple performs some checks. The possible outcomes and required actions are described in Table 32 on page 100.

APPENDIX 3   BLIND SAMPLING

> ⚠️ This procedure can only be used if a school has agreed to participate, but the List of Students will not be received from the School Coordinator in time for student sampling. Blind sampling is more expensive and less relible than sampling from a List of Students with complete - and carefully checked - data.
>
> **Blind sampling does not excuse the School Coordinator from preparing a List of Students**.
>
> If blind sampling is being used:
>
> 1.   The <u>number</u> of students in the grade eligible for assessment must be obtained from the School Coordinator.
>
> 2.   The LST data must be prepared by the data administrator as shown in Table 60, and imported into ACER Maple (see section 5.4). Then students must be sampled (see chapter 6), and the STF template populated with students ID.
>
> 3.   At the same time, the LST data must be completed <u>by the School Coordinator </u>at least two days before the assessment takes place, as explained in the School Coordinator Manual.
>
> 4.   The Test Administrator must visit the school a day before the assessment and manually transfer the records into the STF according to Line No. value in the STF.
>
>   For example, if line number 00003 appears in the STF, then the details of the third student from the LST completed <u>by the School Coordinator must be transferred into STF.</u>
>
>   <u>This must be done for every listed line number in the STF.</u>
>
> 5.   The LST completed by <u>the School Coordinator must be collected by the Test Administrator and sent to the NC after the assessment, along with all other materials.</u>

Table 60: Example LST data in Excel format ready to be imported into ACER Maple for blind sampling

1			AMPL		(F=1; M=2)	MM	YYYY	Special Educational Needs
2	Class name	Student name	School No.	Line No.	Gender	Month of Birth	Year of Birth	SEN
3			1001	00001	9	99	9999	0
4			1001	00002	9	99	9999	0
5			1001	00003	9	99	9999	0
6			1001	00004	9	99	9999	0
7			1001	00005	9	99	9999	0
8			1001	00006	9	99	9999	0
10			1001	00007	9	99	9999	0
11			1001	00008	9	99	9999	0
12			1001	00009	9	99	9999	0
13			1001	00010	9	99	9999	0
14			1001	00011	9	99	9999	0

APPENDIX 4   INDEX OF TABLES

APPENDIX 5   INDEX OF FIGURES