

Teaching and learning 4

Objectives

By the end of this session teachers will:

- have considered the purposes of a consolidation phase in a lesson;
- have developed some strategies for rounding off lessons effectively.

Resources

For the trainer

- Computer with data projector, Microsoft PowerPoint and Presentation 7.ppt
- Whiteboard or flipchart
- Video recorder linked to a large screen
- Video clip 4: Examples of the consolidation phase
- Spare copies of the evaluation form for Day 2
- *Sample lesson plans for mathematics: Grades 1 to 12*

For each teacher

- *Teacher's pack*
Handouts 7.1–7.4
Evaluation form for Day 2
- *Sample lesson plans for mathematics: Grades 1 to 12*

Session outline

Introduction Slides 7.1–7.4 Handouts 7.1–7.2	Whole group presentation and discussion Task 1: Purposes of bringing the class together Task 2: Hazards of bringing the class together at the end of the lesson	25 minutes
The consolidation phase Video clip 4 Slide 7.5 Handout 7.3	Whole group presentation Task 3: Planning ends of lessons Small groups Video clip 4 Task 4: Identifying purposes of the consolidation phase	35 minutes
Action planning Slide 7.6 Handout 7.4 Evaluation form for Day 2	Task 5: Action points Completion of evaluation form	20 minutes

Introduction

25 minutes

Explain that this session is the last of four sessions on teaching and learning. It will focus on the role of plenaries and the consolidation phase of a lesson. Use **slides 7.1 and 7.2** to introduce its objectives and to define a plenary.

Note that the word *plenary* has no direct equivalent in Arabic. Explain that it involves drawing the class together for a purpose, usually after students have been working on tasks individually or in groups. This ‘drawing together’ often occurs at the end of a lesson but can also occur during a lesson.

Before the session starts, brief any interpreter about the key points of the session and, in particular, what to do if you use the word *plenary*.

Set up the video recorder in readiness.

Load **Presentation 7.ppt**.

Objectives

By the end of this session you will:

- have considered the purposes of a consolidation phase in a lesson
- have developed some strategies for rounding off lessons effectively

7.1

A plenary:

- draws together the whole class, usually after group or individual work
- occurs at strategic moments in the teaching sequence
- often occurs at the end of a lesson in a consolidation phase
- can occur at other points of a lesson

7.2

Task 1: Purposes of bringing the class together

Ask teachers to spend 3 or 4 minutes, in pairs or groups of three, listing the purposes of bringing the class together. Ask them to consider the purposes from two perspectives: the teacher’s and the student’s.

Take feedback, asking teachers to distinguish the various purposes for teachers and students. Note responses on a flipchart.

When the flipchart lists have been built up, ask the group which purposes are the most important. Probe for justification. The intention is to build a strong case for the inclusion of plenaries in lessons.

Show **slides 7.3 and 7.4**, which may be helpful to focus the discussion, linking the points back to those that teachers have made.

Plenaries allow teachers to:

- review the learning so far in a task or sequence
- recognise the achievement of individuals and the class
- discuss and correct any common misconceptions or errors
- draw attention to key learning points
- draw out applications of the learning
- direct students to the next phase of learning

7.3

Plenaries allow students to:

- crystallise and remember what has been learned
- communicate what has been learned
- feel a sense of achievement, progress and completion
- reflect on and evaluate their own learning

7.4

Acknowledge that it is worth considering solutions to some common problems when students are brought together at the end of a lesson.

Task 2: Hazards of bringing the class together at the end of a lesson

Refer everyone to **Handout 7.1**. Identify individuals or groups to consider each situation and suggest ways of resolving the problem. Take brief feedback on the

situations. Use the notes below to provide some practical solutions where teachers do not think of them.

Background notes for trainers

Class time runs short.

- Use a student as a timekeeper.
- Plan specific times for the sections of the lesson and stick to them.
- Plan the end of the lesson properly – you are then less likely to neglect it.
- Set homework at the beginning of the lesson.

Students don't treat it seriously.

- Tell students in advance what they will have to do in the final part of the lesson.
- Involve more students in running or contributing to the activities in the final part of the lesson.
- Identify individuals and forewarn them that it is their turn to manage the end of the lesson.

It's always the same routine.

- Plan varied ways of ending the lesson.
- Design each lesson end to suit the lesson and its objective.
- Sometimes use the end of the lesson to give students a glimpse of what they will do in the next lesson.

'Show and tell' sessions result in low-level exchanges.

- Be explicit and demanding. Explain to students what is needed for high-quality feedback.
- Use probing questioning.
- Require justification.
- Stress the new skills and knowledge that have been acquired.
- Ask students to do the questioning.

What has been learned is not drawn out.

- Ask: 'What have we learned in today's lesson?'
- List the explicit learning points in your planning and refer to them.
- Quickly recap key points yourself, then ask students to illustrate.
- Ask how this new learning might be applied in another context.

Refer everyone to **Handout 7.2**, which lists some keys to successful ends of lessons and alternative approaches. Add that it can be helpful to ask students to:

- draw out the most important points, explaining why they are significant;
- think of other examples, simplifications, exceptions;
- generalise;
- apply their learning to a new context;
- illustrate each of the main points of the lesson or give examples to match a general statement;

- devise golden rules or tips for others attempting the same task;
- write up their findings on the board, on posters or in a PowerPoint presentation;
- devise an exercise of three or four examples, with answers, similar to those done in the lesson.

The consolidation phase

35 minutes

Stress again the importance of reviewing and evaluating students' progress in mini-plenaries during a lesson and at the end of a lesson, re-focusing students' attention on what they have learned. A good end to a lesson helps students to strengthen their understanding and be aware of the progress they are making in their learning.

Show **slide 7.5**, which outlines the main purposes of the consolidation phase at the end of the lesson.

A consolidation phase is time to:

- review the lesson's objectives and summarise key learning points
- consolidate, reinforce and extend earlier work
- discuss and correct errors and misconceptions
- assess the extent of students' learning
- make links to other work, look ahead to the next lesson and set homework

7.5

Make these points about the most effective ends to mathematics lessons, relating them to the points on the slide. The best ends to lessons:

- review the learning objectives for the lesson, and draw together the key points that students should know and be able to recall;
- reinforce what has been learned, give extra examples, consolidate the vocabulary and notation students have met in the lesson, set short tasks that draw on students' knowledge, and encourage students to describe and explain how they tackled a particular case;
- engage students in discussion, identifying and rectifying any misunderstandings and errors noted during earlier parts of the lesson;
- use probing questions to judge students' understanding and extend their learning from the main part of the lesson;
- make links to other work in mathematics, other subjects or the real world, look forward to what students could do next, and, where appropriate, set homework based on what has been learned in the lesson.

Task 3: Planning ends of lessons

Ask teachers, in small groups, to think back to one of the main activities seen earlier on video and to plan three key or probing questions that they would ask of the class at the end of the lesson. Allow 3 to 4 minutes.

If possible, the groups should include teachers from different schools.

Take feedback to share ideas around the group.

Task 4: Identifying purposes of the consolidation phase

Show **Video clip 4**, an example of the consolidation phase of a lesson.

After watching the video, ask the groups to turn to **Handout 7.3** in their *Teacher's pack*. Allow them a few minutes to reflect on how the teachers on the video used this phase of their lessons and the key questions that they asked.

Take feedback to clarify ideas.

Ask teachers to work in school groups. Ask them to look at the *Sample lesson plans for mathematics: Grades 1 to 12*, choosing the lessons that are relevant to the grades in their school, and to discuss how each lesson ends and the purpose of the chosen activities.


Round off this part of the session by saying that the ends of mathematics lessons are most successful when teachers are clear about what they will do in the consolidation phase, and allow sufficient time for it. They regard the planning of the end of the lesson as an essential part of the planning of the whole lesson.

If possible, show the concluding part of the lesson shown in Session 6 to illustrate the main teaching activity.

Action planning

20 minutes

Show and discuss **slide 7.6** as a basis for future action by school groups.

Possible action	
<ul style="list-style-type: none">■ At a meeting of the mathematics team, look at the video sequence from this session and use it with Handout 7.3 as an agenda for discussion to share ideas■ Discuss how starter activities might also be used to help consolidate learning at the end of a lesson■ Agree on five strategies that you will trial, and introduce them over a four-week period■ Share student responses to these strategies at a further meeting of the mathematics team	
7.6	

Task 5: Action points

Refer teachers to **Handout 7.4**. Ask them to work together in school groups, to reflect on the day's sessions and to make notes on the actions that they will take to follow them up. Allow about 10 minutes.

Check whether anyone has any unanswered questions from today's sessions and answer these now.

Remind everyone to bring their copies of the *Teacher's pack* to the third and fourth days of the workshop and their scheme of work and main textbooks. One copy of each textbook per school group is sufficient. Say that on Day 4 they will also need examples of lesson plans that they have developed themselves (one per teacher up to a maximum of three per school group).

Thank everyone for their contributions. Invite them to complete the evaluation form for the second day and to give it to you before leaving.

