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English

Grade R Mathematics Improvement Programme

Workshop 11
Participant's Workbook

The Grade R Mathematics and Language Improvement Project is an initiative of the **Gauteng Department of Education** and its key partner, the **Gauteng Education Development Trust**.

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The Grade R Mathematics and Language Improvement Project is managed by **JET Education Services** with **UCT's Schools Development Unit** and **Wordworks** as technical partners.

The **Schools Development Unit** (SDU) at the **University of Cape Town** (UCT) is the mathematics technical partner to the Grade R Mathematics and Language Improvement Project. The SDU is a unit within UCT's School of Education that focuses on teachers' professional development in Mathematics, Science, Literacy/Language and Life Skills from Grade R to Grade 12. The SDU offers teacher qualifications and approved UCT short courses, school-based work, materials development and research to support teaching and learning in all South African contexts.

ACKNOWLEDGEMENTS

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- The Gauteng Department of Education Curriculum, Teacher Education and Special Education Directorate officials for their contribution to the adaptation of our materials.
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- The R-Maths writing team: SDU staff and consultants.

Programme conceptualisation and management: Cally Kuhne and Tholisa Matheza
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Overview

Purpose

This is the eleventh of twelve Grade R Mathematics Improvement Programme workshops, which form part of the Gauteng Department of Education (GDE) Grade R Mathematics and Language Improvement Project.

The purpose of this workshop is to consolidate the understanding of the Maths content taught in Grade R and to continue assisting teachers to implement the Maths Programme in their classrooms. Participants will have the opportunity to reflect on their implementation of the Maths Programme and discuss their planning, teaching and assessment. They will also consider learner progress, and individual developmental and learning needs. Participants will reflect on appropriate assessment strategies for capturing learner progress. The workshop explores the content for Term 4 Weeks 4–6 and its classroom implementation.

References to the Grade R Mathematics Content Areas are taken from the *Curriculum and Assessment Policy Statement (CAPS)*: *Grade R Mathematics (Final Draft),* 2011, Department of Basic Education, South Africa.

Learning outcomes

- To deepen understanding of Grade R Mathematics content
- To reflect on classroom implementation of the Maths Programme
- To identify challenges and find solutions to implementing the Maths Programme
- To reflect on informal forms of assessment in Grade R
- To plan the Maths Programme content to be taught in Term 4 Weeks 4–6

Workshop content

- Opening and reflection (1 hour)
- Session 1: Review of the Maths Content Areas (1 hour)

TEA

- Session 2: Maths Content Area presentations (1 hour)
- Session 3: Maths Content Area presentations (continued) (1 hour)

LUNCH

- Session 4: Planning for teaching (1½ hours)
- Closing activities (30 minutes)

Opening and reflection **1 hour**

When we think about and discuss what worked and how we dealt with any challenges that arose during our teaching, it allows us to recognise our strengths and weaknesses. Reflection on our practice as teachers helps us gain new insights into ourselves and our teaching. Reflective practice allows us to learn from our experiences and encourages us to work with our colleagues to share ideas that improve our teaching.

The process of self-reflection is a cycle that needs to be repeated.

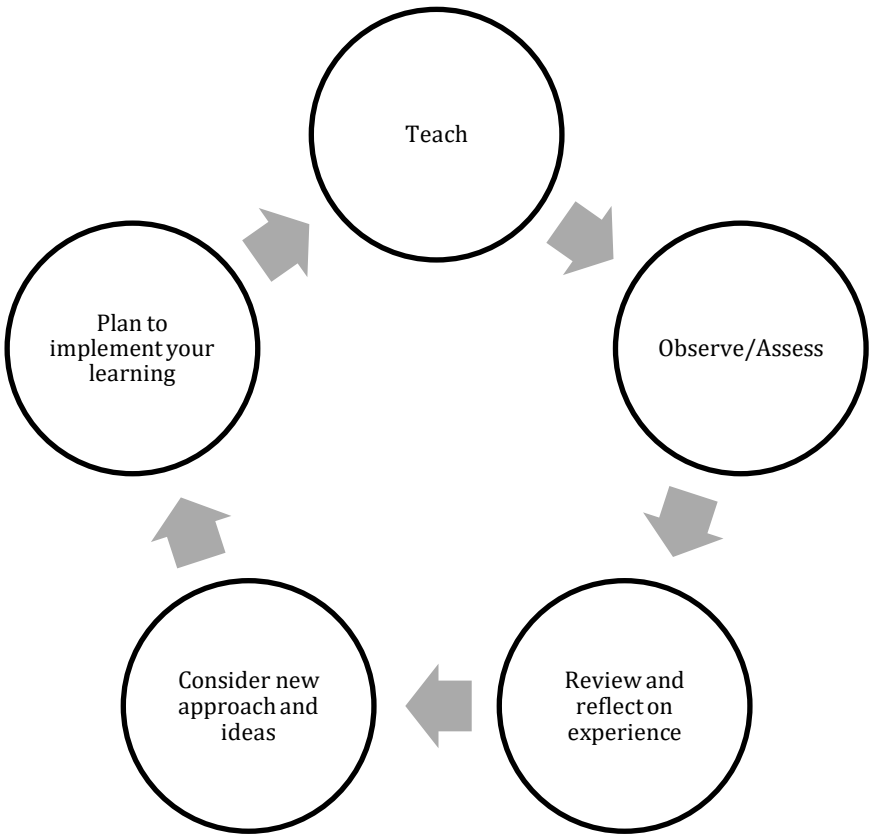

Figure 1: Stages of the reflection cycle

The process of self-reflection contains the following stages:

- Teach.
- Observe/assess.
- Review and reflect on how effective our teaching was, whether the lesson went well, what challenges emerged and whether the learners benefitted.
- Use the above information to consider new ways of teaching that could improve the quality of teaching and learning.
- Plan and implement new ideas and/or strategies in the classroom.

The cycle repeats after each teaching experience.

Reflection in implementation

The *Take back to school* task from Workshop 10, required you to:

- Plan and implement Term 4 Weeks 1–3 of the Maths Programme.
- Write comments in the book that you use to keep track of each learner's progress (learner observation book), and to use the **'Check that learners are able to'** observation list during each of the teacher-guided activities to guide your observations and comments.
- Make notes of what worked well, what did not work well and how you resolved any challenges during your implementation of Term 4 Weeks 1–3.
- Bring your learner observation book and the notes you made when reflecting on each day's teaching to Workshop 11.

Activity 1

1. In your small group, consider each of the stages in the reflection cycle and discuss the *Take back to school* task from Workshop 10.

    - How successful was your planning and teaching in Term 4 Weeks 1–3?

    - Identify challenges and the strategies you used to resolve them.

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_____
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    - Have you been able to observe each learner and record his/her progress? Give reasons and examples to support your answer.

_____

_____

2. Imaging that you have been asked by your Department Head to talk to the Grade R teachers at a cluster meeting.
    - Refer to the reflection cycle in Figure 1.
    - Draw the cycle on flipchart paper and add notes next to each stage of the cycle.
    - Your group will present the main points of your discussion to the whole group.

Video 1

Watch the video of a group of teachers reflecting on their teaching and listen to their opinions about reflective practice.

1. Do you agree with their ideas about reflective practice? Explain your answer.

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2. Does reflective practice increase your understanding of your teaching? Explain your answer.

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3. Does reflective practice increase your understanding of learning in your class? Explain your answer.

_____

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4. Does reflective practice increase your engagement with colleagues? Explain your answer.

_____

_____

Session 1: Review of the Maths Content Areas

1 hour

In Sessions 1, 2 and 3 we will review our understanding and knowledge of the five CAPS Grade R Mathematics Content Areas and related topics. We will also discuss the teaching and approaches that form part of the Maths Programme we have been implementing.

Activity 2

1. Your group will prepare a presentation on a topic that the facilitator gives you.
   - You will have access to flipchart paper, kokis, scissors, glue and items from the *Resource Kit*. You will also be allocated a space in which to set up your presentation.
   - You need to refer to the *Concept Guide* and *Activity Guides* in your presentation.

2. Your presentation needs to include:
   - an overview of the content and how this is developed in Grade R
   - resources used to model concepts and represent ideas
   - appropriate learner activities for consolidating and applying new knowledge
   - areas of concern when teaching the topic
   - a table and wall display
   - examples of how learners would solve problems.

3. Your group will facilitate the discussion and answer questions from the whole group.

Notes:

Session 2: Maths Content Area presentations

1 hour

Each group will have 15 minutes to present their topic and respond to questions from the whole group.

Session 3: Maths Content Area presentations (continued) **1 hour**

Each group will have 15 minutes to present their topic and respond to questions from the whole group.

Session 4: Planning for teaching **1½ hours**

This workshop session prepares participants for implementing Term 4 Weeks 4–6 and provides an opportunity for small groups to plan ahead. It is important to:

- address differences in learners' levels of progress
- support those learners who need additional assistance
- provide enrichment activities for more advanced learners.

The goal is to ensure that all learners are competent in the Grade R Mathematics content and are well prepared for Grade 1.

 **Activity 3**

1. In your group, complete the planning templates for Term 4 Weeks 4–6 (Appendix A).
2. Discuss how you will plan for and manage learners who have different levels of competence.

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Closing activities **30 minutes**

 **Take back to school task**

1. Invite other Grade R teachers at your school (or from another school) to join you in planning Term 4 Weeks 4–6 of the Maths Programme.
2. Implement these three weeks and use the reflection cycle (Figure 1) to review your experience. Write your reflections in a journal and bring it to the next workshop.

Evaluation

Complete the Evaluation Form.

APPENDIX A: TERM 4 WEEKLY PLANNING TEMPLATE

Term 4: Activity Plan: Week ____

<table>
<tr><td colspan="5">CONTENT AREA:</td></tr>
<tr><td colspan="5">TOPIC:

INTRODUCE NEW KNOWLEDGE:

PRACTISE:</td></tr>
<tr><td colspan="2">Whole class activities</td><td>Teacher-guided activity</td><td colspan="2">Workstation activities (independent small group activities)</td></tr>
<tr><td>Day 1</td><td></td><td rowspan="5"></td><td>Activity 1</td><td rowspan="5"></td></tr>
<tr><td>Day 2</td><td></td><td>Activity 2</td></tr>
<tr><td>Day 3</td><td></td><td>Activity 3</td></tr>
<tr><td>Day 4</td><td></td><td>Activity 4</td></tr>
<tr><td>Day 5</td><td></td></tr>
</table>

Term 4: Activity Plan: Week ____

CONTENT AREA:				
TOPIC: **INTRODUCE NEW KNOWLEDGE:** **PRACTISE:**				
Whole class activities		**Teacher-guided activity**	**Workstation activities (independent small group activities)**	
Day 1			**Activity 1**	
Day 2			**Activity 2**	
Day 3			**Activity 3**	
Day 4			**Activity 4**	
Day 5				

Term 4: Activity Plan: Week ____

CONTENT AREA:				
TOPIC: INTRODUCE NEW KNOWLEDGE: PRACTISE:				
Whole class activities		**Teacher-guided activity**	**Workstation activities (independent small group activities)**	
Day 1			**Activity 1**	
Day 2			**Activity 2**	
Day 3			**Activity 3**	
Day 4			**Activity 4**	
Day 5				

Workshop 11 Evaluation Form

1. Did the workshop meet your expectations?

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_____
_____
_____

2. What did you learn in this workshop that helped you the most?

_____
_____
_____
_____

3. Was there anything that you did not like or had difficulty understanding?

_____
_____
_____
_____

4. How will you apply what you have learnt in your Grade R classroom?

_____
_____
_____
_____

5. Do you have any suggestions for improving further workshops?

_____
_____
_____
_____