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A.C.N 100 042 037

MLATS

Mathematics Learning and Teaching for Success

**“INNOVATIVE EDUCATION
FOR EDUCATORS”**

COURSE GUIDE

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www.mlats-group.ning.com

MLATS COURSES

Innovative Education for Educators

The range of professional development opportunities available through MLATS has grown since 1993 when the first course (the 10-day core course) was developed by the Lutheran Schools Association of South Australia and its writers, Margaret Linke (Dip T, B Ed (Spec Ed), Grad Dip Th (Ed), Grad Dip Ed (Lang & Lit), Grad Cert Ma Ed) and Andrea Broadbent (Dip T (E.C.E), B.Ed (Prof Dev), Grad. Dip Th (Ed), Grad Cert Ma Ed). Since that time, well over 3,000 teachers from all Education sectors, Independent, Catholic and State schools in South Australia, Western Australia, Northern Territory, Queensland, Indonesia, China, Thailand and Japan have participated in our courses.

All MLATS courses have been designed to meet the Schools Quadrennial Administrative Guidelines. They aim to support teachers of students aged from 4-15 as they work towards achieving the National Numeracy Goal and Sub-goal and as they outwork the National Action Plan.

MLATS courses provide a collaborative framework for teachers to engage with, and reflect on, significant ideas related to the teaching and learning of mathematics and the development of numeracy. We do this by developing workshops which are constructivist in nature and which intentionally seek to develop participant's own knowledge and understanding of mathematics and numeracy, of how students learn mathematics and develop numeracy, and which give them the opportunity to develop a range of strategies to support learning in a range of educational settings.

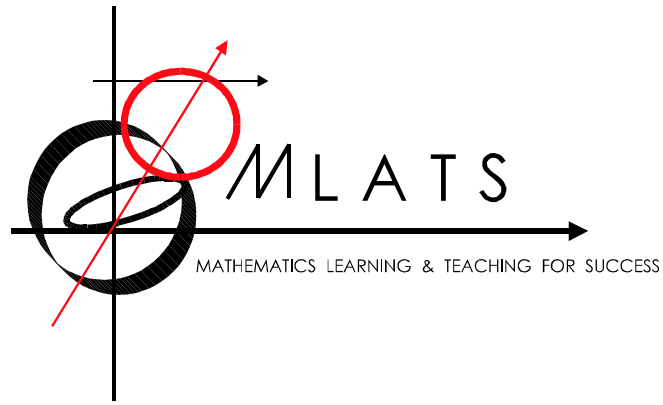
MLATS workshops are facilitated by accredited MLATS presenters.

MLATS PHILOSOPHIES ALIGN WITH THE IB/PYP PROGRAM
and all workshops **qualify for Targeted Programs funding.**

Contact Karen for prices in your State or Territory. Workshop prices vary depending on the length and type of workshop.

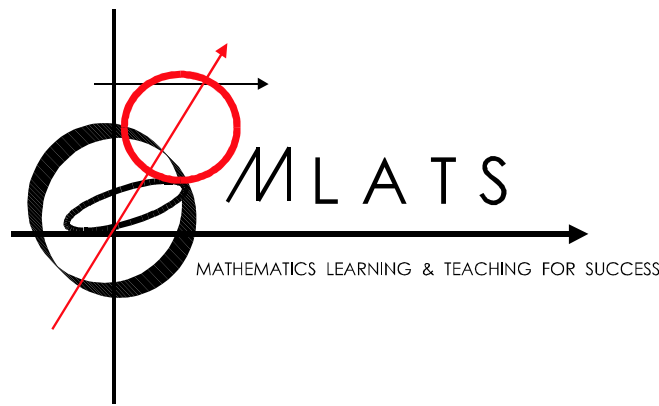
If you would like information about courses sent directly to you, please complete the registration of interest form at the end of this booklet, and fax to (08) 8370 4082 or email to either mail@mlats.com.au or fiddick@optusnet.com.au

For ALL workshops WHOLE SCHOOL training can also be done at Discounted rates for staff of 15 or more



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1. MLATS CORE COURSE

Refer page 5

- a) **10 workshops, totalling 60 hours, spread over four school terms**
Suitable for Reception-Year 9 teachers.
- b) **Participant numbers permitting, there will be a core course specifically designed for teachers in Middle schools (years 6-9)**

The MLATS Core course has been designed to give a broad overview to the learning and teaching of mathematics in Reception to Year 9 classrooms. Teachers who have the opportunity to commit ten days of professional development in mathematics in one school year will benefit most from the structure of this course.

This course aims to support participants to:

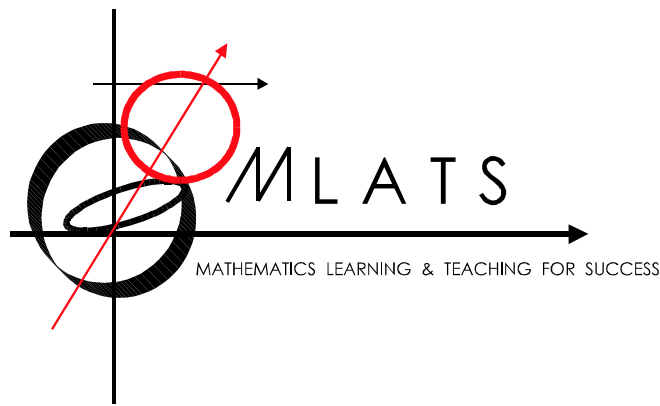
- Increase their own conceptual and procedural knowledge of mathematics
- Increase their understandings about the ways students construct mathematical knowledge
- Develop their understandings about numeracy and its relationship to school mathematics
- Develop a repertoire of classroom strategies for assessing students' mathematical knowledge and development
- Plan for all students to develop understanding of mathematical concepts
- Develop strategies for identifying students who may be at risk of not making satisfactory progress in their mathematical knowledge
- Develop a range of intervention strategies to support those students seen to be at risk

The workshop process involves participants in:

- Small group discussions
- Mathematics activities
- Time for reflection
- Collaborative planning of units of work
- Sharing classroom practice with other participants

In between workshops participants are expected to

- Read a range of relevant articles
- Trial activities in their classrooms
- Formally document their plans



2. MLATS HOW TO USE... SERIES

Suitable for Reception to Year 9 teachers

Workshops are 2 hours

The MLATS How To Use... Series of workshops have been designed for teachers who are looking for new ways to use materials to help students develop their ideas about a range of mathematical concepts.

These workshops aim to support participants in:

- Learning new ways to use the same set of materials to explore a range of mathematical concepts
- Constructing learning activities to enable all students in a class to participate in ways that build their knowledge

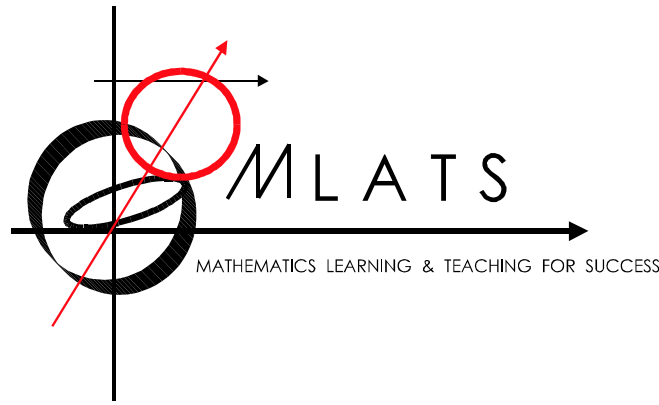
The workshop process involves participants in:

- actively engaging in a wide range of learning experiences using the materials
- identifying the mathematical concepts explored through the activities
- constructing similar activities to use in their own context

Examples of workshop topics include:

- How to use...Welford blocks
- How to use...The Brick
- How to use...Geo 41
- How to use...Geo Boards
- How to use...Fraction kits
- How to use...Grids & counters
- How to use...Cuisenaire
- How to use...Pattern blocks
- How to use...Polydrons
- How to use...Games
- How to use...2D shape sets
- How to use...3D shape sets
- How to use ...Linking cubes





3. MLATS LEARNING AND TEACHING ...SERIES

Suitable for Reception to Year 9 teachers

Workshops are 2 or 3 hours

The MLATS Learning and Teaching Topics... Series of workshops have been designed for teachers who are serious about developing learning environments where all students are supported in developing their mathematical knowledge.

These workshops aim to support participants in:

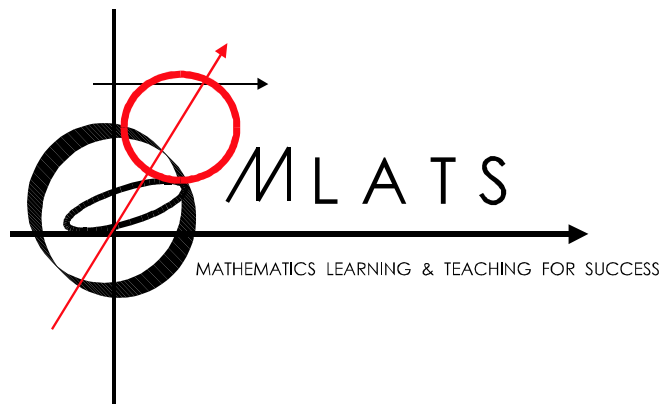
- learning more about the mathematical ideas that students need to develop about a particular topic
- planning for students to develop the desired outcomes

The workshop process involves participants in:

- determining what each student knows about a topic before beginning a unit of work
- identifying the knowledge that students should be developing about a topic
- learning how various materials and resources can be used to develop the desired knowledge
- using this knowledge about each learner to plan appropriate learning experiences
- developing a unit plan or a series of learning activities

Workshop topics include:

- Learning And Teaching ... Sorting And Classifying
- Learning And Teaching ... Pattern & Algebra
- Learning And Teaching ... Place Value
- Learning And Teaching ... The Four Processes
- Learning And Teaching ... Times Tables
- Learning And Teaching ... Fractions
- Learning And Teaching ... Decimals
- Learning And Teaching ... Measurement Of 2D Space
- Learning And Teaching ... Measurement Of 3D Space
- Learning And Teaching ... Location And Arrangement
- Learning And Teaching ... Data Handling
- Learning And Teaching ... Chance & Data
- Learning And Teaching ... Transformation And Symmetry
- Learning And Teaching ... Time
- Learning And Teaching ... Money
- Learning And Teaching ... Problem solving/Real life problem solving
- Learning And Teaching ... Measurement: including capacity, mass, area



4. MLATS STRATEGIES TO SUPPORT LEARNING... SERIES

Suitable for Reception to Year 9 teachers

Workshops are 2 hours

The MLATS Strategies to Support Learning...Series of workshops have been designed for teachers who want to implement or develop strategies to support learning in the mathematics classroom. These workshops seek to help teachers revisit and expand the strategies explored in the MLATS core course.

These workshops aim to support participants in:

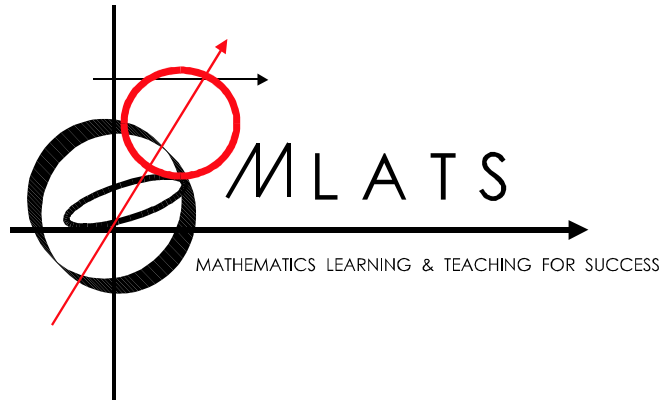
- Considering what relevant research reports about the strategy
- Considering different ways teachers have implemented and developed the strategy
- Reflecting on current practice
- Identifying how they would like the strategy to be working in their classroom
- Developing an action plan to support the achievement of those goals

The workshop process involves participants in:

- Reading
- Discussing
- Reflecting
- Goal-setting
- Planning

Workshop topics include:

- Setting Up for Learning
- Writing in Mathematics
- Whole Class Sharing
- Assessment eg designing rubrics
- Children's Literature



5. MLATS IN THE EARLY YEARS

Suitable for people working with children aged 3-6 years, working in Pre-school settings, Kindergartens, Child Care Centres, Early Learning Centres and extending upwards to Reception and Year 1 teachers

3 days - One full day in terms 1, 2 and 3

MLATS in the Early Years has been developed in response to requests from pre-school teachers who want to focus on and enhance the opportunities for the development of numeracy in their setting. An action research model will be adopted to meet the needs and interests of the participants.

These workshops aim to support participants in:

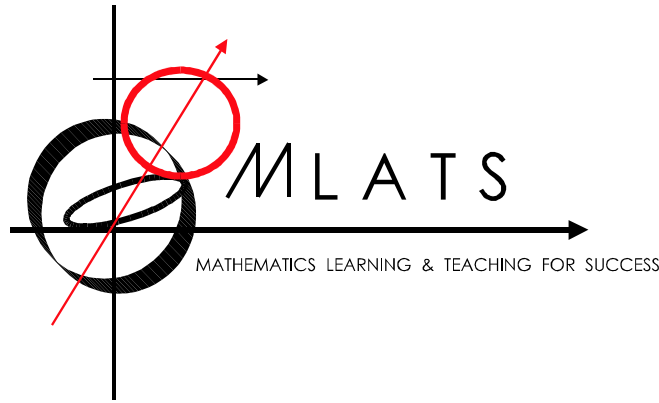
- Developing their knowledge of mathematics and the language used to describe it
- Understanding numeracy and its relationship to mathematics
- Recognising and describing numerate moments
- Making decisions about numerate moments in their setting

The workshop process involves participants in:

- Discussing
- Reflecting
- Exploring issues, topics and concepts
- Planning
- Sharing

Workshop topics will include

- Numeracy in the Early Years
- Numeracy & Play
- Resources
- Learning the Language of Mathematics
- Data Handling
- The Development of Number Sense
- Sorting & Classifying
- Transformation & Symmetry
- The Importance of Pattern
- Measurement of Space
- Spatial awareness/Location and arrangement
- Chance



6. MLATS FOR PARENTS

Suitable for Schools or Preschools wishing to educate the parent community

Workshops are 1.5 - 2 hours

MLATS for Parents workshops have been designed for schools and teachers who wish to inform their parent community about changes to the learning and teaching of mathematics. Two types of workshops have been designed: One for an MLATS presenter to come into the school or pre-school to work with parents, the other for teachers to learn how to plan and conduct successful workshops for parents.

MLATS FOR PARENTS 1 (SCHOOL BASED)

These workshops have been designed for an MLATS presenter to plan and conduct workshops for parents in collaboration with the school.

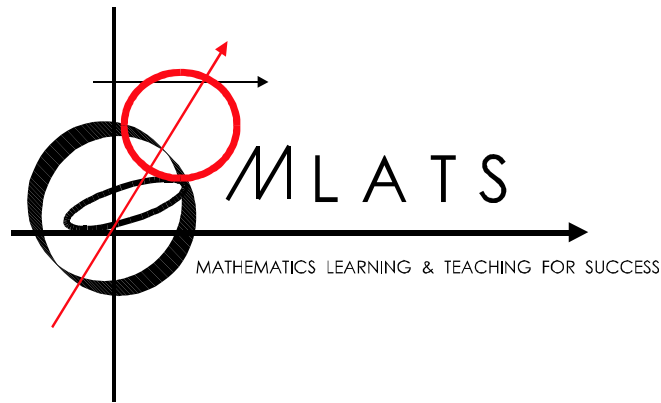
The aims of the workshops are to improve parents' own understandings of:

- A wide range of mathematical concepts
- Working mathematically
- The language of mathematics
- How their children learn mathematics.

A range of workshop topics is available, including:

- Pattern and Algebra
- Space and Measurement
- Learning about the Number System
- Fractions

(Workshops can be designed to meet the particular needs of the school's parent community)



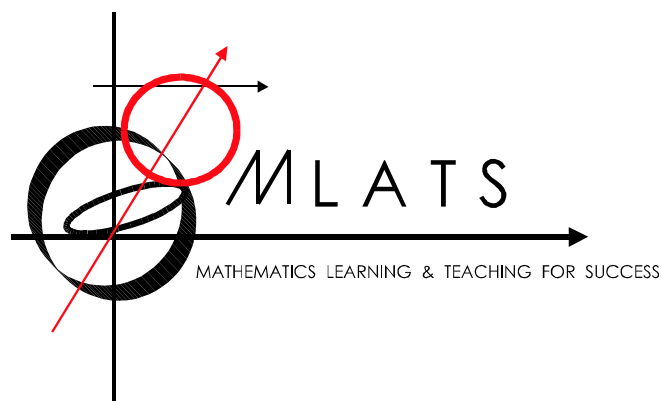
MLATS FOR PARENTS 2: CONSTRUCTING PARENT WORKSHOPS

This workshop has been designed for teachers who wish to run parent workshops in their own schools.

The aims of the workshop are to assist teachers in planning parent workshops by giving support in:

- The timing and structure of the workshops
- Clarifying the purposes of the workshops
- Presenting main ideas
- Learning activities
- Handouts and readings
- Using video as an illustration of aspects of the mathematics curriculum

The workshop process allows teachers to plan a parent workshop, or series of workshops, in a collaborative setting.



7. MLATS IN THE CLASSROOM

Suitable for R-9 teachers

Workshops run for 2-3 hours

These workshops have been designed for teachers to view aspects of learning and teaching mathematics in the classrooms of accredited MLATS teachers.

The aims of the workshop are to provide opportunity for teachers to visit other teacher's classrooms to focus on particular aspects of learning and teaching mathematics, for example,

- Questioning
- Student recording
- Journal writing
- Whole class sharing
- Learning environment
- Role of the teacher
- Assessment
- Learning activities

The workshop process allows participants to:

- Observe and experience MLATS in practice
- Reflect on, and discuss, their observations in a structured way
- See and hear how other teachers implement and manage the learning and teaching of mathematics

8. MLATS INTERVENTION PROGRAM

Suitable for Classroom teachers R-5, Learning Support Teachers R-9, LAP volunteers, School Services Officers, Parents, and Tutors

This intervention program has been designed to assist schools and teachers as they endeavour to intervene and support those students who have been identified as being “at risk” in their numeracy development. It is designed to be used in conjunction with the Early Numeracy Interview (Department of Education, Victoria, 2002), using the interview to establish what the child knows and using this data to plan a program to build on this knowledge in intensive sessions over time.

Some students, despite our best attempts in the classroom, are not making satisfactory progress in learning mathematics. This course aims to support personnel working with these students to improve their mathematical learning. It focuses on the identification of “at risk” students, establishing what these students already know, and developing specific learning plans to build on this knowledge.

It is expected that participants in this course will be able to work with at least one “at risk” student for approximately 30 minutes a day for 3 to 5 days per week over 10-20 weeks.

The five support booklets are:

- Counting, Money, Place Value, Strategies for Addition and Subtraction and Strategies for Multiplication and Division

Each booklet includes:

- Activities, together with their purposes and ideas for focussing questions
- Suggestions for appropriate materials
- Ideas for how each activity may be modified to meet each learner’s needs
- Guidelines for assessment

Professional development will be offered to support teachers in their use of the program. They will receive certification for 20 hours of training and development.

Proposed program:

7 Workshops lasting 2.5 hours over a period of 6 weeks, with a final review day in the subsequent term.

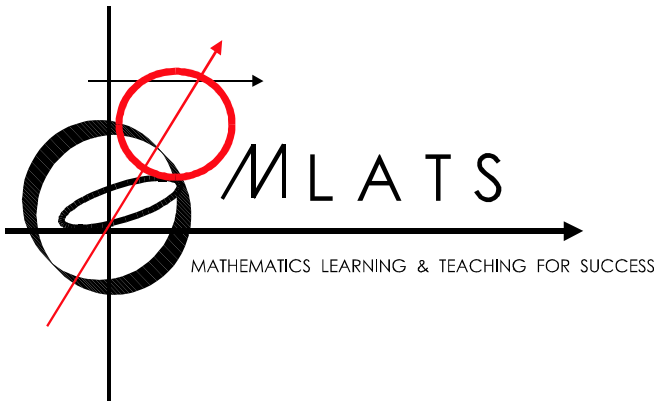
Workshop 1 & 2 Counting and Place Value

Workshop 3 & 4 Addition and Subtraction

Workshop 5 & 6 Multiplication and Division

Workshop 7 Review

Numbers are strictly limited.



**REGISTRATION OF
INTEREST FORM**
ABN: 20 100 042 037

I would like to register my interest in: name of course(s)

NAME _____ YEAR LEVEL _____

SCHOOL _____

SCHOOL ADDRESS _____ P/C _____

SCHOOL PHONE # _____ SCHOOL FAX # _____

HOME ADDRESS _____ P/C _____

HOME PHONE # _____ HOME FAX # _____

EMAIL _____

*Please indicate *** your preferred way of being contacted*

**MAIL YOUR REPLY TO MLATS at 48 York Drive Flagstaff Hill SA 5159
or send an email mail@mlats.com.au or Fax (08) 83704082**

Thankyou for your registration of interest.

Specific information about these courses will be sent directly to you.

For further information, please contact the Course Coordinator Karen Albrechtsen

(mobile) 0413 132 127 (home office) 08 8370 6410 (fax) 08 8370 4082

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