Unlocking Potential: a sensory-motor-perceptual movement program for primary schools

By Marianne Schriever, Margaret Sassé & Jane Williams
Illustrated by Tom Kerr

Developed and piloted by GymbaROO

A learning breakthrough for all students!

Unlocking Potential is a unique primary school movement program that draws on the latest brain development research to assist the stimulation of brain development important to learning, essential knowledge, skills and behaviours. It presents a rationale and learning activities supporting teachers and students to maximise opportunities for learning in Health and Physical Education and other areas of the curriculum.

..that teachers love!

“The 1G teacher is probably the best classroom teacher I have ever come across. She will not take on anything that she feels is a waste of time, and her teaching methods are explicit and systematic. She is completely sold on your program. She can see the evidence in her room every day and she talks about it all the time. This year, she has more challenging students and she is adamant that the daily sensory motor time will not be touched. If M**** can be won over, then it is the real deal!” School Principal 2013, after implementing Unlocking Potential for a 10 month period for Year 1 students.
Background to the development of GymbaROO’s Unlocking Potential: a sensory-motor-perceptual program for primary schools.

It is common knowledge, that constant changes in curriculum have not been able to achieve the desired outcomes for all students. Yet research in the field of neurological development has confirmed that sensory motor perceptual maturities drive the success of learning and behaviour. By improving basic brain processes, it has been found that efficiency in all dimensions of life can be increased. Daily neurodevelopmental activities train the brain to process and manage multi-sensory input and fine-tune the brain. The more finely tuned the brain, the more efficiently the processing of information, leading to organized brain functions and ultimately allowing higher levels of functioning.

The GymbaROO Unlocking Potential: reflex-sensory-motor-perceptual program for primary schools proposes to unlock the potential for all children. The program is designed to train teachers in assisting students to reach their optimum level. It is based on knowledge gathered while working with children in neurodevelopmental education for over 30 years.

Unlocking Potential was originally designed to provide a movement program as part of an educational research study undertaken in primary schools (children aged 6 – 12 years) in Victoria, Australia. As part of the intervention program, Margaret Sassé (Founder & Director) and Marianne Schriever (ex-Primary School Principal, neurodevelopmental consultant and teacher) from Toddler Kindy GymbaROO devised a sensory-motor integration and perceptual development program that incorporated the latest thinking and research on brain development and the important role of reflex inhibition and sensory motor integration to total child development. The results of the research program were extremely positive with teachers reporting that the program not only improved proprioceptive processing, but also visual and auditory processing, resulting in an improvement in literacy, concentration and the ability to follow instructions. More specifically, the pilot project showed that year 1 and 2 students who were well behind their peers in their reading test at the beginning of the year had caught up after using the program for a year. In years 3, 4 & 5 greater improvements in comprehension were achieved at all grade levels and the results were statistically significant when subjected to a multivariate analysis of variance. Teachers also noted an increase in self-esteem, confidence and social interaction, as well as a willingness to attempt new tasks and to take on the responsibility for their own learning. Importantly, most of the students found it
motivating and enjoyable, which encouraged performance of the developmental exercises and activities every day.

The teachers also advised the researchers that they would like a clearly defined and explained program that was easy to utilise, contained all the necessary details of the activities and was age structured. *Unlocking Potential: a sensory-motor-perceptual program for primary schools* was developed in response to these requests, with the added assistance of Dr Jane Williams (GymbaROO Research & Education Manager). *Unlocking Potential* provides specific developmental movement exercises and many physical activities designed to enhance learning in a fun way. The program is also organised to enable the activities to be fully integrated into the daily curriculum. ‘The Structured Program’ and the ‘Three Minute Classroom Activities’ challenge students to improve their own focus in all areas of learning and to make learning an enjoyable, successful experience.

**What is the GymbaROO Unlocking Potential: a sensory-motor-perceptual program for primary schools?**

- A comprehensive activity program for primary children years Prep to 6
- Designed to unlock children’s potential by focusing on their neurological development.
- Scaffolds a reflex inhibition program with sensory integration, motor and perceptual development, the foundational basis for increasing intelligence.

**What is the purpose of the Program?**

1. Provides teachers with a 25 minute lesson program of classroom activities that enhance brain development and readiness for learning, while fulfilling requirements for physical activities as part of the daily school curriculum. The lesson program can be broken down into shorter segments, according to indoor or outdoor environments, equipment needs or time restraints.

2. Provides movement activities for all children so they are developmentally capable of the increased challenges of academic learning.
3. Provides a program that can also be utilized at school by children who have been identified with developmental challenges through school age developmental screening tools.

GymbaROO firmly believes that all students need be given the opportunity to lay the neurological building blocks for lifelong learning and a chance to increase their intelligence.

**What are the advantages of the Program?**

Specifically designed for Australian primary schools by an Australian company with 30 years of neurodevelopmental knowledge.

- Age specific activity bites that may be integrated into daily classroom activities.
- Activities fully described & illustrated & accompanying music CD.
- Local consultant support for implementation and on-going teacher training (where available).
- Pilot study has shown significant improvements in student performance.

**What does the program offer primary teachers?**

- An understanding of why a sensory-motor–perceptual program will make a real difference to children’s learning and behaviour.
- Explanations on how the activities promote neurological development.
- A structured program which busy, practicing teachers will find encouraging, practical and powerful.
- A program which has been trialled in five schools with significant results.
- Initial training by expert local GymbaROO franchisee &/or expert support staff - including power-point presentation, background information & activity ideas.
- Ongoing support with the implementation of the program by local GymbaROO franchisee (where available).

**What are the real gains for primary students?**

- Providing students with activities that develop brain capacity, while at the same time enjoyment
• Enabling students to lay the building blocks for future learning.

• The sensory-motor-perceptual activities influence visual and auditory abilities, memory, co-ordination.

• The program impacts processing and cognitive skills, speech, reading, writing, mathematical ability and athletics.

• Allowing children to reach much higher levels of neurological functioning and achievement, thus increasing intelligence.

• Improving concentration, organization, social/emotional behaviour, energy and attitudes to learning.

Results that show the program works

The Unlocking Potential Schools program has been trialled in several schools with excellent results.

To read about the results of the pilot study undertaken across five schools in a Victorian school district please refer to:


The research showed that children who undertook the GymbaROO sensory-motor-perceptual program (since renamed: Unlocking Potential) made significantly statistical improvements in reading comprehension when compared to the control group who undertook standard reading and exercise programs.
More recently, a NSW primary school ran the Unlocking potential GymbaROO schools program 3 days per week for the entire school year for Year 1 students. Using the “Draw-a Person” test, children were assessed for their neurological age - the age at which they are functioning neurologically, or cognitively - (as distinct from their chronological age – their actual age in years and months) before and after the schools program was implemented. The results show significant improvement in ability for age between pre and post testing.
### Table A: Comparison between pre-test Draw-A-Person neurological score and Post-test Draw-A-Person neurological score for 42 Year 1 students at a NSW primary school.

The Draw-A-Person assessment tool has long been a recognised way of assessing developmental status of a child. The children’s illustrations are scored against a checklist of criteria, categories and items. The following is an example of the Draw-A-Person pre and post-test assessment. You can see the enormous gains made in this child’s ability, indicating an enormously improved readiness for learning.

<table>
<thead>
<tr>
<th></th>
<th>Pre-test</th>
<th>Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below ability for age</td>
<td>25 (60%) (13 showed ability &gt;5 years)</td>
<td>7 (16%)</td>
</tr>
<tr>
<td>At ability for age</td>
<td>13 (30%)</td>
<td>15 (36%)</td>
</tr>
<tr>
<td>Above ability for age</td>
<td>4 (10%)</td>
<td>20 (48%)</td>
</tr>
<tr>
<td>n = 42</td>
<td>n = 42</td>
<td></td>
</tr>
</tbody>
</table>

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Overview of the Program

The program is specifically designed for primary aged school aged children and teachers. It can be targeted at children, who have a developmental challenge, but it is designed so that these children do not have to be singled out – the activities have positive outcomes for every child in the classroom both neurologically and physically!

It is divided into 3 categories:

- Prep – year 2 (5 years old to 7 years old) (Also suitable for kindergarten – age 4 years old)
- Years 3 – 4 (8 – 9 years old)
- Years 5 – 6 (10 – 11 years old) (in response to feedback from the research pilot, we increased the level of challenge in many of these activities and incorporated more group activities)

Each category is clearly numbered, making it easy to locate the level, week and activities for the day.

Each age group program is accompanied by the introductory section.

The Introductory Section details:

1. The rationale of the sensory motor perceptual program and how it works to impact learning.
2. Clarification of sensory motor terminology and sensory motor systems.
3. How to observe and map children’s’ progress (includes a checklist for neurological immaturities), including signs of developmental delay in the child that can be detected in the classroom.
4. Advice on how to incorporate (plan) the program into the daily classroom routine
5. Explanation and illustrations explaining the structured & unstructured sections of the program: three minute classroom activities, exercises, dance, animal walks, language, mat challenges, aerobic activities, parachute activities, eye exercises, warm up activities, concentration and listening, relaxation & breathing, encouragement and cooperation.
6. Explanations and illustrations of the specific developmental movement exercises.
Each age specific section contains:

- Nine levels each clearly detailing 4 – 5 weeks of activities.
- Each level has 10 lesson plans.

These should provide enough activity ideas for a full year of classroom teaching.

Each lesson is clearly produced in table form so that a teacher can insert the single lesson page into a clear plastic pocket if desired. On the page opposite the tables are explanations for the activities for the lesson. Illustrations on the table and accompanying the explanations allow the teacher to more easily visualise the activity. (See accompanying samples).

To implement the program, teachers require 2 half days or one full day of training. Sessions can be tailored to the school’s needs. It has been found to be most effective to have follow-up sessions after the initial training and after implementing the practical activities.

**Fees**

Program training, *Unlocking Potential* activity manual for Kindy (Preps), Year 1, & Year 2 (5 – 7 year olds) and older age groups if required. Includes: 6 hours of program training (usually in one day), 6 copies of the *Unlocking Potential* Manuals and accompanying CD’s (2 or 3 per set depending on age group); One parent information session of one hour and one follow up visit by GymbaROO trainer at the end first or second term of program operation (if required).

$4500 (inc GST)

Additional Manuals and music CDs $100 (ex GST) (1 set per classroom recommended)

Additional initial training  
  Full day $1500 (ex GST)  
  Half day $750 (exGST)
(As required, e.g. if all teachers cannot attend initial training day. Additional training days and fees are open to further negotiation and discussion as different schools will have different requirements)

Ongoing consultation per hour $150 (ex GST)
(Recommended as support service each term, or as required. GymbaROO support personnel also available to undertake pre & post program assessment for the same hourly fee)

**Equipment**

The program has been written to ensure that most equipment required is almost always already part of the schools equipment supplies. If any additional equipment is required it can be purchased through the franchisee or from the schools preferred suppliers.

Equipment requirement varies between age groups, but may include:

- CD player
- Bean bags (for each student)
- Mats (for floor activities)
- Rhythm sticks (for each student)
- Balance beam (per group of 4 – 6 students)
- Balloons or balls of different sizes (for each student or shared between two)
- Short ropes (for each student)
- Hoops (for each student)
- Bats and balls (group activity)
- Parachute (group activity)

A comprehensive list is provided with each age-related program.

**For further information contact:**

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OR

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OR

GymbaROO Research & Education General Manager, Dr Jane Williams
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ph: 0432 336730
Samples from *Unlocking Potential: a sensory-motor-perceptual program for primary schools.*

**Prep – Year 2 (5 – 7 year olds)**

<table>
<thead>
<tr>
<th>Level</th>
<th>Reflex inhibition activity</th>
<th>Sensory-motor perceptual activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1 - 4 weeks</td>
<td>Helicopter Turtle</td>
<td>Body Awareness</td>
</tr>
<tr>
<td></td>
<td>Nosy Turtle Restless Turtle</td>
<td>Balloon/ Ball handling</td>
</tr>
<tr>
<td></td>
<td>Worm Squirm</td>
<td>Relaxation</td>
</tr>
<tr>
<td>Level 2 - 4 weeks</td>
<td>Butterfly Homolateral crocodiles</td>
<td>Mat challenges</td>
</tr>
<tr>
<td>Level 3 - 4 weeks</td>
<td>Superman Homolateral commando crawl</td>
<td>Beanbag/Ball Challenges</td>
</tr>
<tr>
<td>Level 4 - 4 weeks</td>
<td>Cross pattern commando crawl Hand to foot Spinning</td>
<td>Balance Beam</td>
</tr>
<tr>
<td>Level 5 - 4 weeks</td>
<td>Rocking Angels in the sand</td>
<td>Rope challenges</td>
</tr>
<tr>
<td>Level 6 - 4 weeks</td>
<td>Tired Grasshopper Cross pattern creeping Rolling – half body</td>
<td>Eye exercises Co-ordination</td>
</tr>
<tr>
<td>Level 7 - 4 weeks</td>
<td>Rolling - sideways Creeping forward with resistance Creeping backwards with resistance Push ups</td>
<td>Hoop challenges Marching</td>
</tr>
<tr>
<td>Level 8 - 4 weeks</td>
<td>Pencil roll Creeping with different tempos Rowing boat Cat</td>
<td>Rhythm Sticks Parachute</td>
</tr>
<tr>
<td>Level 9 - 4 weeks</td>
<td>Tired Cricket Forward roll Sit-ups</td>
<td>Aerobics Games</td>
</tr>
</tbody>
</table>

Relaxation
**Areas of Development:** Movement patterns, moving the body through space with control and coordination while using a variety of locomotor skills, body awareness, laterality, eye-hand and eye-foot coordination, sensory functioning involving visual, tactile, kinaesthetic and auditory modalities, establishment of neural connections.

<table>
<thead>
<tr>
<th>LESSON 3.1</th>
<th>ACTIVITIES</th>
<th>Level Three Prep – Year 2</th>
<th>TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1.1</td>
<td>Warm-up activities</td>
<td></td>
<td>3 min</td>
</tr>
<tr>
<td></td>
<td>Specific Developmental Movement Exercises</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1.2</td>
<td>Superman</td>
<td></td>
<td>2 min</td>
</tr>
<tr>
<td>3.1.3</td>
<td>Homolateral commando crawl</td>
<td></td>
<td>3 min</td>
</tr>
<tr>
<td></td>
<td>Additional exercises &amp; activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1.4</td>
<td>Locomotion challenges</td>
<td></td>
<td>6 min</td>
</tr>
<tr>
<td>3.1.5</td>
<td>Bean bag handling</td>
<td></td>
<td>8 min</td>
</tr>
<tr>
<td>3.1.6</td>
<td>Deep breathing and relaxation</td>
<td></td>
<td>3 min</td>
</tr>
</tbody>
</table>
3.1.4 Locomotion challenges     Prep – Year 2

**Equipment:** 1 hoop, 4 beanbags per 4 students, CD player, CD *Locomotion 1.*

**Teaching points:** Ensure there is sufficient space for freedom and safety.

For running – correct technique includes knees up to the horizontal position, elbows bent and tucked in, and head still. Encourage students to contact the ground with a heel-toe action, with the ball of the foot used to push off for the walk/jog. Eyes should be focused forward throughout the run. Knees to be bent at right angles during the recovery phase. The arms are to be bent at the elbows and moving in opposition to the legs. Body leans slightly forward.

**Activities:**


2) Running – Run on toes and balls of feet with weight slightly forward and feet pointing straight ahead. Run on the spot. Run to the line and back. Run on toes, stay up high. Run and then stop on signal. Lift knees. Run quietly, noisily.

4) Beanbag scramble – The hoops are randomly scattered with 4 beanbags placed in each hoop. A maximum of four students stand near each hoop. (continues)

3.1.5 Bean bag/ball handling. Prep- Year 2

**Equipment:** 1 beanbag per child

**Teaching point:** Revise underarm throwing – swing the straight arm back while holding the ball. Step forward onto the foot on the opposite side of the throwing arm. Swing the arm towards the target. Keep following through with the arm after the ball has been released. Progress from individual to partner activities.

**Activities:**

1) Use CD, track 12, Throw the beanbag

2) Throwing – throw a beanbag underarm over a designated line. Throw it with each hand.

3) Toss the beanbag underarm into an ice-cream container. Start close and move the container further away.
**Areas of Development**, body and space awareness, muscle tone, vision, hand-eye and foot coordination, laterality, directionality, agility, flexibility, endurance, dynamic balance, sensory functioning in the visual, tactile, kinaesthetic and auditory areas, listening skills and rhythm, establishment of neural connections.

<table>
<thead>
<tr>
<th>LESSON 5.1</th>
<th>ACTIVITIES</th>
<th>Level Five Prep – Year 2</th>
<th>TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1.1</td>
<td>Warm-up activities</td>
<td></td>
<td>3 min</td>
</tr>
<tr>
<td></td>
<td>Specific Developmental Movement Exercises</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.1.2</td>
<td>Rocking</td>
<td></td>
<td>2 min</td>
</tr>
<tr>
<td>5.1.3</td>
<td>Angels in the sand</td>
<td></td>
<td>3 min</td>
</tr>
<tr>
<td></td>
<td>Additional exercises &amp; activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.1.4</td>
<td>Rope challenges</td>
<td></td>
<td>8 min</td>
</tr>
<tr>
<td>5.1.5</td>
<td>Animal walks</td>
<td></td>
<td>6 min</td>
</tr>
<tr>
<td>5.1.6</td>
<td>Deep breathing and relaxation</td>
<td></td>
<td>3 min</td>
</tr>
</tbody>
</table>
5.1.4 Rope challenges  Prep – Year 2

**Equipment:** 1 skipping rope per child (approx. 2m long).

**Teaching points:** Ensure each student has sufficient space to move freely. Ask students to place ropes flat on the floor in a straight line and to stand behind one end of the rope. Instruct students to walk slowly, eyes ahead, not looking at the feet but thinking about their movements.

**Activities:**
1) Walk with one foot on each side of the rope without touching the rope. Walk to the end and back without turning around.
2) Walk on the rope, using toe-to-heel walking to the end and back without turning.
3) Walk on the rope using a criss-cross step, move forward and back without turning.
4) Walk on the rope lifting knees up as high as possible, keeping upper body straight.
5) Walk on the rope bending knees and walking very low to the end and back.
6) Walk on the rope on tip-toes and stretch arms as high as possible to the end and back.
7) Slide feet along the rope and back.
8) Make a loop with arms and step through with legs, while walking along the rope.

5.1.5 Animal walks  Prep – Year 2

**Equipment:** CD player, CD *Animal Movements.*

**Teaching points:** Students are asked to imitate movements of animals while learning to use their bodies with good control, ease and confidence. Use a rhythm instrument to give a definite beat to suit the movement and to maintain the movement.

**Activities:**
1) Bear Walk – bend body over and walk on all 4 limbs. Move one side of the body at a time i.e. left leg and left arm, then right leg and right arm. Walk slowly like a bear and keep limbs as straight as possible.
2) Use CD track 6 – *The Bear went over the Mountain.*