PILOT STUDY OF FELDENKRAIS BREATHING PROGRAM FOR 7 –9 YR CHILDREN AT SCHOOLS

METHODOLOGY

- 53 children who attend Kindy to 3rd grade at two primary schools in Coffs Harbour, participated in an 'Improved Breathing Program' based on the Feldenkrais Method© in Term 3 and 4 of 2004.
- The Program consisted of four to six Awareness Through Movement© Lessons lasting ¾ to 1 hour, over a two-month period.
- Only 39 children were selected for this pilot study as they were present at all times when measurements were taken.
- Objective and subjective measurements were taken before and after the program to evaluate changes.
- Parents and teachers were given 'evaluation of program outcome forms' to complete and return at the completion of the programs
- The data was used to assess the effectiveness of the program and to plan future programs
- Video recordings were taken of two of the lessons at one school for the sole purposes of program evaluation. (Permission was obtained)

OBJECTIVE MEASUREMENTS:

1. Lung Capacity Tests:

Measurements were taken after each child had understood directions and establishing effective use of FEV equipment,; **before**, and two weeks **after** the Program.

- Three peak expiratory flow rates (PEFR) were recorded with a 'standard range peak flow meter' to measure Forced Expiratory Volume (FEV).
- The Standardised measurement tool was a Mimi Wright Peak Flow Meter
- Standard range was used to measure lung capacity and function in children. Standards data from Polger, G Promedhat V. Pulmonary function testing in children. Techniques and standards. Philadelphia, W.B. Saunders, 1971.

2. Function of Rib Cage and Diaphragm

- Chest circumference on maximal inspiration
- Chest circumference on maximal expiration
- Belly circumference on maximal exhalation while pushing out the belly
- Belly circumference on maximal inhalation

2. Height and Weight

SUBJECTIVE MEASUREMENTS:

Parent and Teacher 'Evaluation of Outcome' forms (1) were sent out to be completed and returned, then this data collated to give percentage of children who were observed by parents to have improved in different functional areas.

RESULTS

(based on findings from a 4 week program of one school – 16 children)

OBJECTIVE FINDINGS:

1. Measurements of Lung Capacity

The expected 'Standards of Child and Adolescent Predicted Average Peak Flow' (LPM) scores were reached or exceeded by ONLY:-

- 18% of children before the program
- 37.5% of children after the program

Significant improvement in lung capacity overall was evidenced by:-

- 83% of children increasing their FEV from 5 to 80mls/sec
- 81.5% of children increasing their FEV from 5 to 50mls/sec
- 62.5% of children increasing their FEV from 5 to 30mls/sec
- 56% of children increasing their FEV from 30 to 80mls/sec

HEIGHT		BEST FEV		STANDARD	CHANGE
INCHES	CMS	BEFORE	AFTER	FEV	b4/after
43	109.2	120	150	147	30
45	114.3	150	150	173	0
46	116.8	150	170	187	20
46	116.8	200	205	187	5
47	119.4	195	200	200	5
47	119.4	190	200	200	10
47	119.4	170	200	200	30
49	124.5	210	205	227	-5
49	124.5	237	250	227	15
49	124.5	150	180	227	30
49	124.5	160	240	227	80
53	134.6	205	235	280	30

53	**134.6**	**285**	**285**	**280**	0
54	**137.2**	**190**	**240**	**293**	50
55	**139.7**	**180**	**210**	**307**	30
55	**139.7**	**230**	**290**	**307**	50

- Two children did not change their FEV scores
- One child's FEV score lowered. (Child had respiratory illness at end of program)

2. Chest and Belly Measurements

Results were obtained by comparing the circumference of the chest on full inspiration and the belly on forced expiration before and after the program;

- 100% of children learnt to improve the extension of their chest (rib cage) on full inspiration

- All but one child improved their ability to extend their belly on forced expiration. (ie. Learn to extend the diaphragm fully - Stretch the Diaphragm!)

BEFORE CHEST	AFTER CHEST	Diff in Chest	BEFORE BELLY	AFTER BELLY	Diff in Belly
57.5	61	3.5	51	58	7
60	65.5	5.5	60.5	56	-4.5
57.5	60.5	3	48	55.5	7.5
59.5	62	2.5	54	56	2
57	58	1	51	53	2
60	65	5	53	59	6
61	67	6	57	59	2
60	63	3	59	60.5	0.5
60	64.5	4.5	57	60.5	3.5
57.5	60.5	3	57	60.5	3.5
60	62.5	2.5	49.5	56	6.5
63.5	67.5	4	59	61.5	2.5
66	70	4	60	66	6
61.5	65.5	4	60	63	3
63	65.5	2.5	60	63	3
61	64	3	54	57	3

SUBJECTIVE FINDINGS:

Parent Evaluation of Program Outcomes

There were insignificant findings in this pilot study because only 4 forms were returned although a subsequent program revealed the following results.

Parents were asked to make observations of any changes of their child after the Program 50% of parents returned the Evaluation Forms (1). Data was collated from the forms. There was reported improvements in their children's ability in the following areas:-
(The percentage of parents who reported improvement in functional areas is indicated.)

Function	*%*
Gross Motor	**69**
Fine Motor	**33**
Posture	**33**
Organisational Ability	**42**
Attention	**58**
Concentration	**33**
Behaviour	**42**
Breathing	**25**
Sleeping	**50**
Self Esteem	**50**

NB. Negative feedback was not received from any parents. Although the score for observed changes in breathing was lowest. Changes in breathing are also the least observable.

Teacher's Evaluation of Program Outcomes (not returned at this date)

CONCLUSION

The pilot study established improvement in the lung capacity of at least 80% of the children who participated in the improved breathing program. All children learnt to use their breathing apparatus (rib cage and diaphragm) more efficiently.

Measurements were taken two weeks after the completion of the program; the extended results show that the children have also retained the 'Learning' of improved breathing. This new ABILITY or LEARNING will not just improve breathing, but will be evidenced in movement and improvement of overall function.

Further studies are indicated to determine outcomes in other areas of the children's development as a result of improved breathing programs based on the Feldenkrais Method©.

DIAGNOSTICS

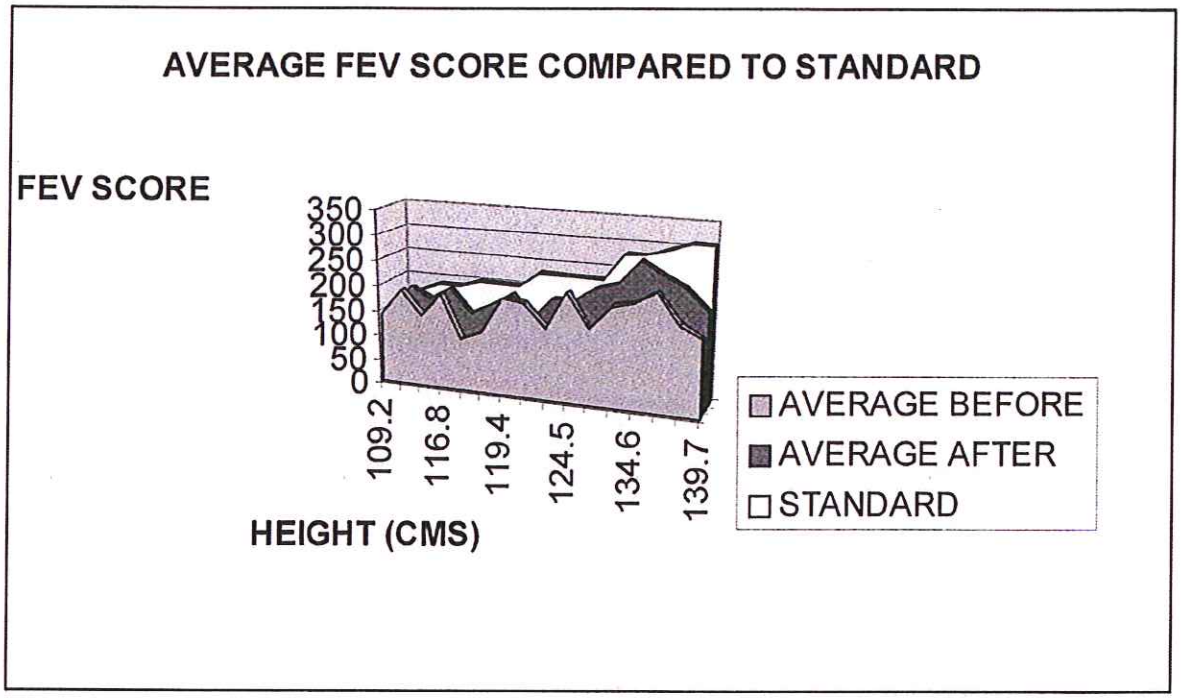
There were some children with observable breathing difficulties, who need specific attention and ongoing programs. Nonetheless, in general all children need more programs like these in schools. The child with cerebral palsy, chronic respiratory illnesses, asthma, and behavioural problems and for whom this program was specifically established, has benefited by improving his best FEV by a substantial 50ml/sec and increasing his chest and belly circumference by 6.5 and 3cms consecutively. Now that effort in breathing has substantially reduced it is expected that the increased muscle tone as a result of effort in motor tasks will also reduce. His Mother stated that she had noticed a significant improvement in his sleeping, breathing, behaviour, and in his overall health. He continues to improve eight months later.

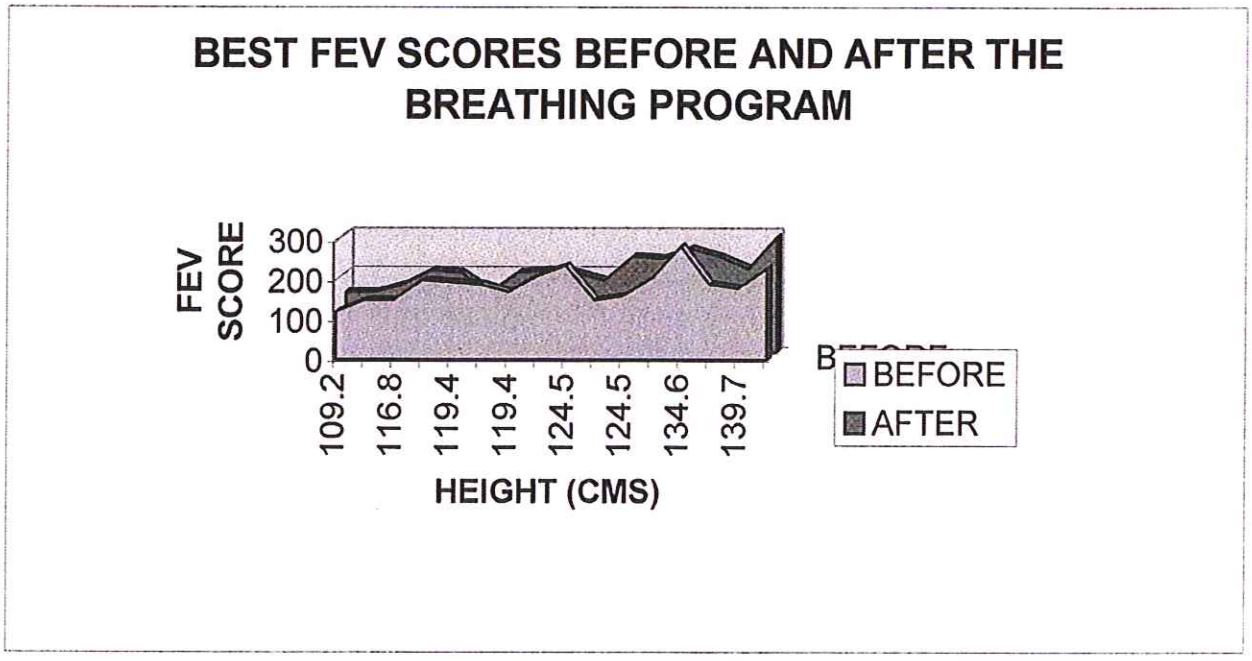
RECOMMENDATIONS

- It is highly recommended that the boy with cerebral palsy participate in many more school based Feldenkrais Programs© specifically to address his cerebral palsy patterns of movement now that his behaviour, health and breathing has improved.
- Re-measure children at six monthly intervals
- Continue with improved breathing programs at schools - six lessons over six-weeks
- Further develop this program and other Feldenkrais Programs for children in primary schools in N.S.W., in consultation with Colleagues, Parents and Teachers and management of DADHC – Coffs Harbour.

This study was completed by

Kim Narelle Wise
Scientist (Anatomy), Physiotherapist, and Feldenkrais Practitioner
Consultant Physiotherapist to School Aged Children in the Mid North Coast Region
DADHC, (Department of Aged, Disablity and Home Care), Coffs Harbour


AVERAGE FEV SCORE COMPARED TO STANDARD
FEV SCORE
350
300
250
200
150
100
50
0
109.2
116.8
119.4
124.5
134.6
139.7
HEIGHT (CMS)
AVERAGE BEFORE
AVERAGE AFTER
STANDARD


BEST FEV SCORES BEFORE AND AFTER THE BREATHING PROGRAM
FEV SCORE
300
200
100
0
109.2
116.8
119.4
119.4
124.5
124.5
134.6
139.7
HEIGHT (CMS)
BEFORE
AFTER

THE FELDENKRAIS METHOD IN SCHOOLS

Children on the mid north coast of NSW have been receiving Awareness Through Movement Lessons ®(ATM's) in primary schools. A service provided by Kim Narelle Wise, who is employed as a consultant physiotherapist to the NSW Department of Aged, Disability and Home Care (DADHC) based in Coffs Harbour. Kim has been introducing the Feldenkrais Method into high schools and primary schools for both intellectually and physically disabled children for the past two years, and in the last year, Feldenkrais Programs (six weeks of ATM's) have been introduced to primary school children in mainstream education with interesting results.

The programs for mainstream education schools were designed especially for children eligible to receive a service from DADHC., to include children without an intellectual disability but a significant physical disability and needing programs for breathing, cerebral palsy, ADHD and hyperactivity. Peer groups were chosen as an environmental motivator with whom the child/client would learn. Resulting in giving ATM's in schools. The lessons of the programs appeared highly effective in creating changes for so many children in the whole classroom, and as well the target child in the room.

To ascertain the effectiveness of a '**Feldenkrais Optimal Breathing Program**' last year, Kim did a pilot study involving two local primary schools. A total of 53 children participated. They experienced an intensive and dynamic six-week breathing program at school. Both objective and subjective measurements were taken before and after the program. These measurements included FEV (Forced Expiratory Volume), chest and belly measurements on forced inspiration and expiration.

The Subjective measurement used was a detailed questionnaire completed by parents and teachers on other interesting outcomes of the program.

The outcomes of this pilot study were remarkable.

Objective results showed that:-

- 80% of the children increased their FEV measurement
- 100% increased their ability to extend the ribcage – ie. the chest circumference increased.
- 99% learnt to extend their belly on expiration.

Subjective results revealed:-

- 68% of parents reported improvements in their child's gross motor ability.
- 58% reported improvement in their child's ability to pay attention.
- 33% of parents reported improvement in their child's self-confidence, self esteem, fine motor, concentration, sleeping, and behaviour.
- Most alarming to Kim was that she discovered many children in primary schools do not reach the accepted scientific 'Standards' of Optimal Breathing. (That is Forced Expiratory Volume relative to age and height. - Standards data from Polger, G Promedhat V. Pulmonary function testing in children. Techniques and Standards; Philadelphia, W.B. Saunders, 1971.)
- 17% of children reached the 'Standardised Score' before the program, 45% afterwards.
- Further work in schools and research is indicated Kim says.

Kim wants to see the Feldenkrais Method as part of the educational curriculum in SCHOOLS WORLDWIDE.

Initially, the Vice President of the Feldenkrais Interest Group (FIG), Penelope Jones invited Kim to launch her work and encouraged her to present a full day workshop. Then, Beryl Kennedy - Physiotherapist, Feldenkrais Practitioner and President of FIG introduced Kim's Workshop in July 2005 for FIG in Sydney., to 40 participants. The workshop was:-

'Discovering an Exciting, New Dimension to Movement and Behavior Through Optimal Breathing for Children in Schools.'

The workshop attracted much interest and much encouragement. Invitations were prevalent, to do more workshops to include a proposal to run an in-service training at 'The Center of Teaching and Learning' in Canberra., a Govt. Dpt where educational curriculum content in schools is developed.

This first workshop in Sydney was an 'introduction ' to the possibility of providing programs designed to meet the natural and potential development of dynamic movement in school aged children, with specificity to the relationship of the rib cage and breathing in movement. Waking up the inter-costal muscles (muscles between the ribs) and the diaphragm by enhancing the breathing mechanism relative to movement in all directions and in all relationships to gravity. Parents report improvements in their children's overall health, vitality, sleeping, behaviour, self-esteem and ability to pay attention, concentration, fine motor and gross motor, learning ability - kids automatically learn to spell, read and write. The classes are fun.

Kim insists that FP's have a comprehensive education in child development before contemplating teaching in schools. The concept of the Feldenkrais Practitioner in the classroom and the expression of 'fitting in' with an established educational system, was also a highlight in Kim's presentation. "Understanding a teacher's perspective is important if we are to enter the education curriculum." "Let us open closed doors, no matter how rusty, not with force but with experience and liquid persuasion."

"We are a Profession of Feldenkrais Practitioners. Prevention has always been better than cure. Life today is oppressive and our children need help, NOW. This work may be an illusion to some yet a vision to many. It is time to act. Action is only as far away as your thought and your participation! Let us, as a combined force, prevent the problems of tomorrow, by encouraging healthiness in our children today. A room of school kids is in fact, a place where the FP can learn more about the FM."

"Dynamic movement programs based on the Feldenkrais Method have unlimited potential in schools; by addressing many of the unseen difficulties encountered by children in the process of their learning, as well answer some dilemmas faced by many educators."

FELDENKRAIS PRACTITIONERS WHO ARE INTERESTED IN COMPLETING A PROPOSED ADVANCED TRAINING IN 'PAEDIATRIC FELDENKRAIS IN SCHOOLS' PLEASE CONTACT KIM:-

@

wise@ozconnect.net

Hm Ph: 0266538493

Mob: 0427538493

Wk: 0266591346 (Tues/Wed)

PO Box 2164, Coffs Harbour NSW 2450

A School 'Physiotherapy' Program
On
Breathing

In late 2003., an expression of interest was made by a Teacher of a Public Primary School in the Coffs Harbour District to incorporate a Breathing Program based on the Feldenkrais Method into the State Education Classroom Curriculum of Personal Development, Health and Education as a part of:-

'A Look Inside – The Human Body.'

The program consists of a series of Awareness Through Movement Lessons (ATM's).
In which the whole class participates.

Specific Aims

- To improve body awareness through breathing lessons aiming to improve breathing.
- To improve sensory-motor organisation by altering rate (shifting habitual patterns of timing) of input of sensory information
- To improve accuracy in motor planning ability which should have ramifications in both Gross and Fine Motor tasks.
- To reduce clumsiness and recklessness in motor performance
- To enhance inner calm or composure for emotional control.
- Maximise potential to learn and function well in the world.

Expected Outcomes would be improvements in:-

Breathing
Ability to focus –paying attention
Ability to focus for longer periods
Concentration
Co-ordination
Grace
Motor planning
Accuracy and Direction
Posture
Self Esteem
More complete Self Image
Improved composure

Method

- Physiotherapist develops a series of educative lessons in consultation with teacher concerning breathing and the breathing mechanism over a six week period
- Physiotherapist demonstrates to teacher and class once per week over a six week period
- Teacher runs program remaining four days per week for six weeks

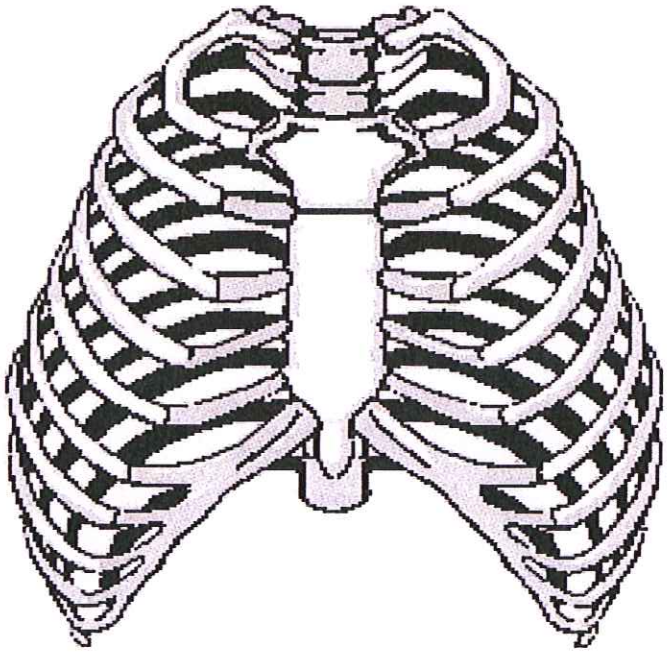
Equipment Needed

Large Balloons – two balloons for each child in the class. (And a few extra in case of breakage's)
String – cut into six inch lengths
Water
Photocopies of ribcage – one for each child to colour in.
Coloured pencils
Modified bottle lid (sample provided)
Stethoscope (optional)
Rib Cage Skeleton (optional)
FEV Lung Capacity Measuring Device (optional)

Measuring Outcomes

To reliably measure improvements in breathing of the children after the six week school program., before and after FEV tests could be done to measure effectiveness of the program by showing increasing 'Forced Expiratory Volume'., which is a recognized and reliable clinical indicator to measure improvements in breathing and lung capacity. Other measurements would be subjective yet a valuable source of feedback for the therapist from the teachers perspective.

COLOUR IN AND LABEL THE RIB CAGE



Program

Week 1

Manipulating the Senses to Explore and Discover the Structural Components of the Body's Breathing Mechanism.

A. Visual - Colour in the picture of the skeleton of rib cage (attached)

Using different colours:-

a. Colour in the ribs
b. Colour in the sternum (breastbone)
c. Colour in the collar bones
d. Then Label the ribs, the sternum and the collar bones. (Advanced)

B. Auditory – Children learn to work with their attention, listen, comprehend and execute a verbal instruction into a meaningful movement of themselves within a competitive and confined environment of a classroom.

C. Tactile - Children divide up into pairs to find and palpate each other's bones. (When palpating other's bones, be very gentle and non invasive.)

(A Class on 'How to' and 'Touching Another Person' is optional here.)

D. Kineasthetic – Children 'feel' movement of their body.
E. Proprioreceptive – Children develop an improved awareness of body position sense.
F. Spatial Orientation – Children learn to organise themselves in space, in relationship to their own body parts and the relationship between themselves and others.

1. The Collar Bones

- Teacher or therapist demonstrates to the class where the collar bones are located on the drawing, on themselves, on another child, and on a demo skeleton.
- Each child feels for their own collar bones
- Child finds/feels collar bones of other child of pair
- "How long are these bones?"
- "How thick are these bones?"
- "What shape are these bones?"

(Children could put their perspectives into shaping clay here)

2. The First Rib is hard to find, so The Second Rib is palpated

- the first rib is hidden behind the collar bone.
- find where the second rib is located on their own body
- one child of pair sits, other child stands, the child standing gently places fingers over the second rib of child sitting
- "Can you feel the movement of the second rib when you breathe in and then out?" Give them plenty of time
- Children swap over.

3. **The Sternum or Breastbone**

- the location of the sternum
- Children feel their own sternums and then their partners
- "Can you feel the movement of the sternum when you breathe in and then out?"

4. **The Base Ribs**

- where are the bottom ribs located on the body
- Each child feels for their own bottom ribs
- "Can you feel the bones near your waist line?"
- "Can you breathe into these bones?"
- Now one child of pair stand in front of other child and place his/her hands around the waist from behind- "Can you feel their bottom rib bones?"
- "Can you feel the movement of the bones when you breathe?"
- Swap over and repeat above

5. **The Rest of the Rib Cage**

- where and how to find the rest of the ribs
- children feel for other ribs on themselves and then try to feel the ribs move when they breathe in and out
- notice how the ribs move up and out when they breathe in., and down and in when they breathe out, like a bucket handle – bucket demo.

6. **The Belly**

- Children feel their own and partner's belly, then feel themselves and visually observe each other stick out and pull in belly, imagine having a balloon of water in the belly.

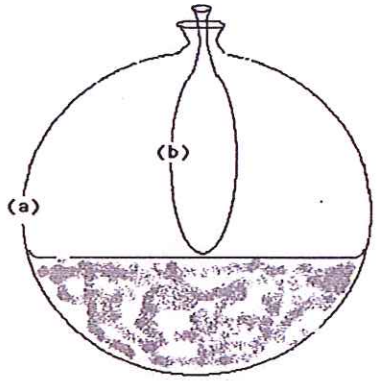
<u>Using Models to Manage Learning Experience</u>

1. **Using Balloons, Air and Water to Model The Breathing Mechanism**

- Children still in pairs and perhaps this activity best done outside in the playground
- Hand out a balloon to each child, ask one child of each pair to fill half of their balloon with water.
- Ask the other child to thread the second balloon into the balloon with water
- Leaving the opening of the second balloon outside the water balloon.
- Fit the bottle lid to the opening of the balloons

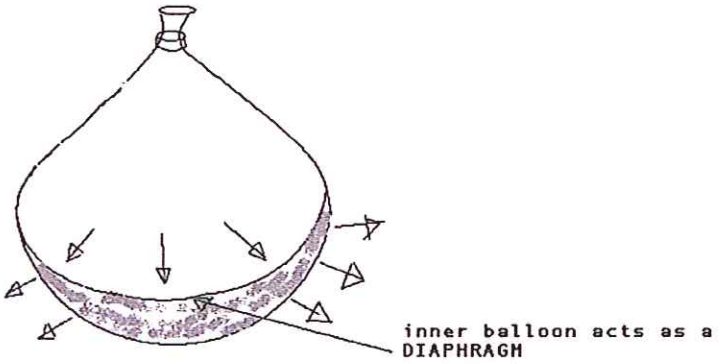
Diagram of Balloons

a) half full of water
b) uninflated inside a)



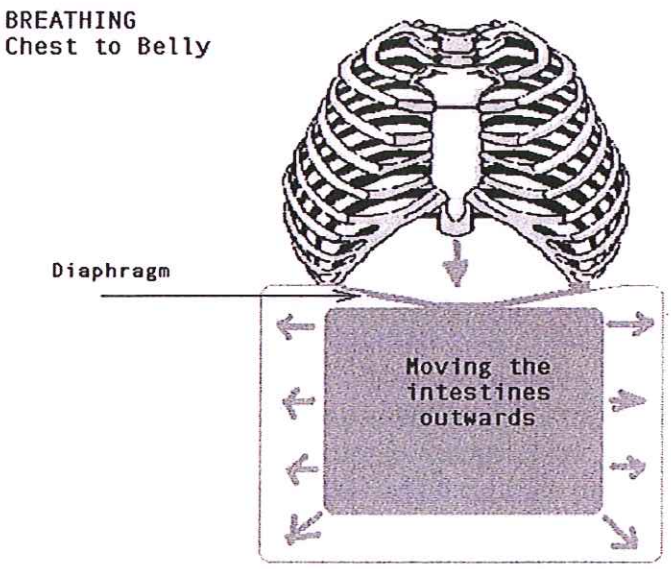
- Teacher demonstrates by blowing up the inner balloon to full capacity and the children watch how the inner balloon disperses the water of the outer balloon.

How the air pushes
the water to expand
the outer balloon



Proposing Explanations

- Teacher can demonstrate with a picture as seen below
- Making similarities to balloons and proposing explanations for the breathing mechanism



Homework:

Notice your breathing, notice when you breathe and how you breathe.

OPTION:

Modeling the rib cage

- Provision of a skeleton as model.
- A project for the children could be to mould a rib each, using modelling clay.
- Noting 24 ribs will be needed, a sternum and 24 vertebrae. Cotton reels or small blocks could be used for the vertebra.
- Using pipe cleaners for ribs
- Wire

A Model of the Lungs as Balloons

Balloons

- Long thin balloons and round balloons
- A stocking

Observing to Explore and Discover Breathing

Week 2

CAUTION: It is very important to prevent hyperventilation by making the lessons very short and asking the children to make small

breaths, reminding them always to NOT work hard and to NOT effort in this experience.,
breathing should be effortless and pleasurable.

1. **Scanning the body: while lying on the floor –face up**

- sense your body lying on the floor,
- does your body feel heavy or light, big or small, long or short
- feel the back of your head lying on the floor.,
- feel your shoulders chest and bottom lying on the floor
- now feel your legs and your feet on the floor
- scan your whole body again and feel which part presses hardest,
- feel which parts of your body do not touch the floor at all
- which part of your body feels heaviest and which part feels lightest
- can you feel any parts of your body moving?
- Do these parts move when you breathe?
- do you know where your ribs are, can you feel your ribs moving?
- give it up and rest

2. **Ly on the Chest and Belly**

- Ask the children if they can feel the movements of their breathing
- Can they feel their Belly and/or Chest pushing into the floor.
- Children are directed to imagine they have a big balloon in their body that extends from their collar bones down to their waste-line and another balloon from their waste-line filled with water in their belly.
- Direct them to breathe into their chest, filling up their chest with air. Make analogy to the balloon, imagine you have a balloon in your chest, fill up the balloon., then breathe out and empty the balloon. Continue to do this a few times.
- 'Can you feel your chest push into the floor and/or your belly?"
- "Can you feel the balloon full of air in your chest push out the balloon full of water in your belly so that your belly pushes into the floor?"
- Shut your eyes and do it, and feel and your body., feel your body making contact with the floor, how does your body touch the floor.

3. **Children Gather into Pairs Observing Each Other's Breathing**

- One child of each pair lies on the floor on their back, the second child sits on floor next to child lying on the floor.
- Child sitting looks at child lying on floor, notice if the child's tummy raises or falls as the child breathes, notice if the child's chest raises and falls as the child breathes.
- Now the child lying on the floor imagines having a balloon in chest and in tummy. The child breathes 'normally'.
- The child sitting observes which balloon fills up the most with the breath
- The child sitting can gently place a hand on the tummy or breastbone to sense movement with the hand

- Exaggerate whatever happens; if the chest raises more than the belly on inspiration, make it bigger. If it is the belly that raises more than the chest, make it bigger
- Do this a few times
- Can you imagine the two balloons in your chest and belly
- Can you feel the balloons getting bigger and then smaller
- Can you feel the balloon with air push out the balloon with water and as this happens your belly pushes out
- Give it up and rest

4. Children swap over, other child lies on the floor and repeats above exercise

- Stop and rest

5. Now everyone lies on the floor on their backs

- Try to fill only the balloon in the chest
- Hold your breath for a second and pull in your tummy
- Breathe out
- Repeat a few times
- Stop and rest
- Breathe into the balloon in the chest
- Hold the breath
- While holding the breath push the air in the top balloon down so that it pushes the water in the balloon in your belly making your belly stick out
- Feel the chest go down and the belly go up.
- Breathe
- Repeat a few times
- Stop and Rest
- Now breathe in and hold your breath
- Let go. Breathe normally. (What is normally?)
- Rest., What changes in your breathing when you pay attention to it?
- How do you breathe when you rest?
- Breath into the balloon inside your chest, fill it up. Don't bust the balloon!!!!
- Breathe out your mouth by pushing the air out of the balloon in your chest, squash your chest. Rest
- Breathe in your nose and fill the balloon in your chest again, hold your breath, now push the air into the balloon in your belly.
- While you hold your breath push the air from one balloon to the other. The child sitting assists.
- See – Saw movement of belly and chest., Stop and Rest

6. Ly on your stomach

- Rest with arms above your head, elbows bent and your hands under your face.
- "Can you feel the balloon in your chest or in your belly as you breath?".
- What colour is the balloon in the chest and what colour is the balloon in your belly.
- "Take a breath into your chest and feel the balloon fill up with air and notice when it begins to push down into the water of the other balloon in your belly."
- "Take a little breath in, without pushing down into the water balloon in your belly"

- Stop and Rest
- Repeat
- "Breath into your chest, hold your breath, and pull in your belly."
- Repeat a few times
- "Breathe out and rest."
- While you rest can you feel any balloons filling just a little bit.
- Now take a big breath into your chest balloon, HOLD your breath.
- Blow it out
- Rest
- Again take a big breath into your chest and hold your breath, **while holding your breath**, push the air down to your tummy balloon.
- Breathe out
- Rest
- Again, breath into your chest balloon, hold your breath and push the air into your tummy balloon.
- Rest

- "Again breath into your chest, hold your breath and push the air into your tummy balloon, and now back up to your chest balloon. Feel your chest push into the floor then feel your tummy push into the floor while you do this."
- Breath out
- Rest
- Begin again breathing into chest balloon and then pushing the air down to the water in the belly balloon and then back up to chest, down to the belly, up to the chest, down to the belly and so on.....
- Rest
- Repeat
- Go faster and faster.
- Rest
- Feel your breathing now, is it fast or slow
- "Can you push the air back and forth slowly?"
- Now how slow can you go
- Now breathe in just a tiny little bit of air, breathe out a tiny little bit of air
- Now breathe in a lot of air, breathe out a lot of air
- Stop and Rest.
- Roll onto your side and sit on the floor
- If you feel a bit funny wait a while
- When you are ready stand up and walk around, take your time
- Notice your breathing for the rest of your life

Taking Breathing into Movement

Week 3 and 4

After practicing the above sequences over a 2 week period, once mastered, practice the following for 10 minutes everyday for one week.

Ask the children if they can do the breathing movements in sitting

- While sitting, ask the children to imagine a circle on the ceiling.
- Imagine an insect of their choice begins to walk around the circle
- Ask the children to move their eyes to watch and follow the insect walking slowly around the circle
- Slow music
- Stop and Rest
- Now while watching the insect begin to do chest to belly breathing in sitting
- Stop and Rest
- Now the insect has changed direction, follow him with your eyes now while doing chest to belly breathing
- Can you follow the insect without interrupting your breathing?
- Stop and rest
- Now do it to fast music
- Stop and Rest
- Slow music again, who can slow their breathing down?
- Imagine the slowest little animal, maybe a snail or a slug crawling around the circle.
- Stop and Rest
- Draw a circle while you hold your breath
- Draw a circle while you breathe in
- Draw a circle while you breathe out
- Begin to do the chest to belly breathing and while doing that draw in the eyes, nose, ears and mouth of a person in the circle.
- Stop and Rest
- Continue with the chest to belly breathing while you write your name under the drawing
- The children can put their drawings on a board in the classroom
- This exercise could be incorporated prior to an activity requiring concentration and attention such as writing skills to evaluate effectiveness

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Breathing in Standing

1st day of Week Five

- Begin with all the children lying on the floor scanning their bodies
- "Can you notice any differences in your body since you first scanned your body?"
- Sit the child down and ask them to begin their chest to belly breathing., and while they continue to breathe that way write down what they noticed was different,
- Stop and Rest
- Chest to Belly breathing again and hand out body maps and ask children to draw in the differences. Stop and Rest

Rest of Week Five – 10 minutes daily

- Children standing, commence chest to belly movements
  Stop and Rest
- Children in pairs facing each other doing chest to belly movements
- Stop and Rest
- Children back to back leaning against each other doing chest to belly movements
- Stop and Rest
- Children walking around the room doing chest to belly movements
- Stop and Rest

Week 6 - 10 minutes daily

- Lying on the floor doing a body scan

- Lying on the floor remembering the balloons
- Have the balloons become or smaller than when you first commenced the breathing lessons
- Is it easy now to push the water out in the balloon in your belly?
- Come to standing with enough room around yourselves to move freely without bumping into anyone
- Begin the Chest to Belly Breathing (CBB)
- With arms outstretched above your head begin to make a circle in the air while you breathe chest to belly
- If you stop breathing, stop moving and begin again
- Stop and Rest
- Imagine the insect walking around the circle
- Continue with the CBB and the arms moving in circles, begin to watch the insect walking/crawling around the circle in the opposite direction to which the hands are moving
- Stop and Rest

Variations can be added to this program by incorporating movements of the legs, for example bending `and straightening the knees while doing the CBB

- What do you do, do you breathe in when you bend your knees or when you straighten your knees?
- Continue following your pattern of knee bending with CBB
- Stop and Rest
- Now try doing the opposite to your pattern., for example if you breathed in when you bent your knees before, do the opposite – breathe in when you straighten your knees, and breathe out when you bend them.
- Stop and Rest
- Now bend and straighten your knees really fast while you do the CBB
- Can you make your knees bend fast while making your CBB slow?
- Can you make your knees bend slowly while you do fast CBB'S?
- Stop and Rest

Squatting down
Star jumps
Skipping Movements
Other Gross Motor Activities
Other Fine Motor Activities.

THE FELDENKRAIS INTEREST GROUP

Invites you to a full day
Workshop by
Kim Narelle Wise

DISCOVER AN EXCITING NEW DIMENSION TO MOVEMENT AND BEHAVIOUR FOR CHILDREN

THROUGH OPTIMAL BREATHING

Kim, a Feldenkrais Practitioner of 15 years,
a Physiotherapist of 30 years,
with a background in science (anatomy major),
has extensive clinical and paediatric experience.
Now introducing breathing programs into schools by developing
AWARENESS THROUGH MOVEMENT LESSONS
to compliment the private and state education school curriculum in the subject of,
PERSONAL DEVELOPMENT, HEALTH & EDUCATION:-
'A LOOK INSIDE - THE HUMAN BODY.'

FELDENKRAIS PRACTITIONERS SCHOOL TEACHERS/EDUCATORS, HEALTH PROFESSIONALS PARENTS AND THE GENERAL PUBLIC

Kim did a pilot study of this breathing program with 50 children from Kindy to Year 3 while working with the Dpt. of Ageing, Disability and Home Care as consultant physiotherapist to school aged children on the mid north coast of NSW.
The study showed highly significant results; 80% of the children increased their lung capacity, in some cases remarkably. Some parents reported that children also improved posture, behaviour, learning ability, and overall health.
Alarmingly, most children did not attain optimal lung capacity for age and height at the outset of the Program. More programs and research are indicated.

THIS WORKSHOP IS AN INTRODUCTION TO A PROCESS OF LEARNING

Participants will gain skills in - 'the how of learning' to enhance children's

- behaviour and attention
- self-esteem, learning ability
- self-awareness, posture
- fine and gross motor skills
- ability to perform in sport
- sleeping, lung capacity and health

"Teach our children to breathe optimally, breath is the center of all our function."
Kim says

Dynamic movement programs based on the Feldenkrais Method have unlimited potential in schools, by addressing many of the unseen difficulties encountered by children in the process of their learning, as well answer some dilemmas faced by many educators.

"Dr. Feldenkrais, (PhD) a physicist, biologist, and judo master, developed a method based on the understanding of the conditions the brain needs in order to learn. Understanding the importance and centrality of movement in the evolution of the healthy functioning of the brain and the body, Dr. Feldenkrais chose movement as the main way to communicate with the brain. Movement and awareness of movement are the primary tools in promoting change and improvement of functioning in this method."
ANAT BANIEL

This day will include a short audio-visual demonstration. Then participants will be invited to experience the work first hand with Awareness Through Movement" (ATM) floor lessons. There will be time for discussion and questions.

Where- DOUGHERTY CENTRE--7 Victor St., CHATSWOOD
When- 16th July 2005- 9.30 am to 4.30 pm
Cost- $55
Wear- Loose comfortable clothes
Bring- A towel or mat to lie on

- **Tea and coffee**- will be provided at breaks
- **Lunch**- BYO or eat out in nearby Chatswood

For those Feldenkrais Practitioners interested in being involved in a research study in schools, peadiatric training in the program will be made available- contact Kim.

For further information call:-

Kim on 0427538493 or 0266538493
wise@ozconnect.net
Bookings:-Aileen on 0298747746
or Linda on 0296642413

Booking is essential to reserve your place