Early Childhood Literacy Programme

BUDDING Q

2024

Children's emotional and intellectual capabilities begin to flourish

RHODES UNIVERSITY
Where leaders learn

CONTENTS

Early Childhood Literacy Programme

BUDDING Q

The 'Invisible' Pathways to Literacy

One of the first ways children learn is through their senses, that is, as they hear, see, smell, taste and feel. Information gathered through the senses, namely, sensations, elicits an electro-chemical response. The idea that body movement is a fundamental component in young children's learning is not new but research showed that in Grade R movement is being side-lined to meet the more formal pedagogical demands. This amounts to a lost opportunity to develop gross and fine motor skills, as well as other neuro-physical aspects of learning, since through the exploration of movement the child can adjust to, understand and ultimately master their environment. The young child must overcome the pull of gravity in order to sit and stand, they must develop basic locomotor abilities, so they can move through space, and they must be able to handle objects to which he relates. Mastery of fundamental movement skills in early childhood are the building blocks for more complex movement and play an important role in the overall development of school readiness. In the early years gross motor skills are necessary for movement, as well as to stabilise and control the body. Through gross motor skills children improve their posture, sense of balance and co-ordination. This, in turn, enables children to develop fine motor skills that are essential for success during the subsequent school years. It is through the successful acquisition of gross and fine motor skills that the different perceptual-motor behaviours become refined.

Despite governments efforts to increase access to Grade R education, little has been done to improve the quality. Studies have shown that these foundations vastly improve a child's learning later in their schooling career (Centre for Social Development (CSD) report) and in many cases provides a grounding to improve their socio-economic standing. "National and provincial assessments conducted over the past ten years show that a high percentage of South African children are not acquiring basic literacy skills in their first three years at school" (Word Works). In Makhanda many of the children in our schools (in this programme) struggle in aspects of emergent literacy (such as identifying letter names, sounds, handling books and writing their names) (CSD report).

Please find more in 'Narrowing the literacy gap' (a Word Works publication, available at http://www.wordworks.org.za/downloads/ww-materials/Narrowing-the-literacy-gap-old.pdf).

The ECD Reading programme, BuddingQ is designed to address the dire state of Early Literacy in Makhanda (where 80% of our children cannot read for meaning in their mother tongue by the time the reach grade 3).

In acknowledgement of student reflections of the programme in previous years we realise the programme needs to urgently be stringently formalised! In recent research done by a

local NGO, GADRA, 1800 children enter the schooling system in Grade 1 and only 250 pass matric. ECD is a sector that drastically needs to be supported.

Through the development and improvement of fine and gross motor skills, children can more easily progress and benefit from their education.

Programme Development

BuddingQ, as a programme, has taken several years and multiple iterations to develop into the programmatic version you see in this handbook. Similarly, BuddingQ is the product of numerous organisations' research and practice - at its core, the fine and gross motor activities developed by Kelly Long (from our local education partner, GADRA Education) and Robyn Oosthuisen. These activities can be found, now somewhat adapted and added to over the years in the pages of this handbook. We also acknowledge the inclusion of Wordwork's Together In My Education (TIME) materials.

Aim

The aim of BuddingQ is to engage and introduce students to Community Engagement, support ECD teachers in producing quality, holistic school readiness programmes and contribute to the improvement of Early Childhood Literacy Development (emergent literacy skills).

Goals

Goal:	How it's met within the implementation strategy:
Enhance pre-literacy school readiness for final year pre-schoolers (5-6 year olds)	• Relevant and researched materials • Focussed literacy programme
To contribute to the VC Education pipeline*	• Formal relationships with Grahamstown partners • Structured and formalised approach
Enrich the quality of ECD experience for the abovementioned age group.	• Well-resourced and trained students throughan accredited short course
Create an opportunity to contribute to the development of a young child.	• Students who attend 80% or more of their sessions will be awarded a certificate • Quality training offered
Develop socially aware students who are aware of the inequality of education systems in Makhanda	• Through interaction at volunteer sites • Measurable through year-end reflections (attitudes based)

*an initiative started at the inauguration of the Vice Chancellor in 2015 to revive Makhanda schooling, starting at the ECD level through to post-school opportunities.

Monitoring and Evaluation

1. A pre and post developmental checklist will take place to establish the level of fine and gross motor development. The initial test will be completed by the student leaders prior to the programme starting and the post-test will be done in the last session.

2. Follow up literacy testing will be conducted mid-year and post intervention on a smaller group of children.

3. Weekly feedback checklists will be expected from the student volunteers. An end-of-year reflection would indicate student volunteer growth (attitudes-based questions). These will be done online.

4. Registers will be taken by student leaders and monitored in partnership with the programme co-ordinator. Student will be expected to attend 80% or more of the sessions to be awarded their volunteerism certificate. Student volunteers will also keep a register of the children they run the session with.

5. Reflections from partners and student leaders will be done verbally during quarterly meetings

6. Student volunteers will complete various formative tasks and a single summative accredited short course task.

Structure of the Programme

We have 12 schools as partners:

1. CM Vellem Health Promoting School
2. NV Cewu Primary School
3. Good Shepherd Primary School
4. Rhodes Preschool
5. Grahamstown Adventist School
6. Ntaba Maria Primary School
7. Makana Primary School
8. PJ Olivier Pre-PrimarySchool
9. George Dickerson Primary School
10. Grahamstown Primary School
11. St. Marys Primary School
12. Little Red Dragon

Student recruitment will begin in the previous year to the programme running (i.e December to begin in February). A total of 120-140 students should be recruited (5-8 per group to accommodate for timetable clashes etc.). Each school will be assigned 4 volunteers with one student leader per session to manage volunteers at each school – a total of 5 volunteers. Each student volunteer will be allocated 5-10 Grade R (or the highest age group of the school intake) children.

Training of students and partners on the programme content will take place throughout the year via an online course. Concurrently students will attend to their site weekly thereafter (approximately 15 sessions). Training will be facilitated by Partners and student leaders. Training should strictly emphasise the need and purpose for this programme and an explanation of the Progress in International Reading Literacy Study (PIRLS) and understanding the benchmark testing and its value.

Two schools will be visited each morning (20 students travelling each session). Therefore, each school should be visited once a week by student volunteer groups. Bus transport will be provided.

Session content will be prescribed. It is expected that volunteers **follow the plan strictly** in the best interest of attaining the impact we seek.

Purpose of the programme

In South Africa, there is a known education crisis. In Makhanda, many of the children entering the school system struggle to meet the demands of schooling. They're not "school ready". Research has shown that there is a correlation between movement and a child's literacy development. It is through developing these preliteracy skills* that we hope to address the challenge of schooling and learning in our city.

The name 'BuddingQ' speaks to the growth of a child's EQ and IQ (Emotional and Intellectual Intelligence respectively). BuddingQ is designed to support schools to run meaningful programmes that develop preliteracy skills that children are assumed to have acquired prior to entering Grade 1. The content of the sessions are aimed at developing literacy motor skills, such as crossing the mid-line, eye-tracking, manipulation of object (e.g. a pen, or a book). This is reflected in the outcomes required in the assessments that are done with the children.

*Motor skills required to prepare the brain for reading, speaking, writing and listening.

Project Chronology

TIME FRAME	MODALITY	ACTIVITY
January-February 2024	Student Leader & Volunteer Recruitment	
10 February **(Res Students are allowed to return on 8 February)**	In-person	Student leader training (All programmes)
12-16 February	In-person	Baseline assessments conducted by Student Leaders
24-25 February	In-person	BuddingQ volunteer training
26 Feb - 15 March	Online	Short Course Completion (Unit 1 & 2)
26 Feb- 1 March	In-person	Session 1
2 March	In-person	Reading Club Volunteer Training
4-8 March	In-person	Session 2
9 March	In-person	Reading Club Volunteer Training
11-15 March	In-person	Session 3
20 Mar-7 Apr	**School & RU holidays**	
8-12 April	In-person	Session 4
15-19 April	In-person	Session 5
22-26 April	In-person	Session 6
6-10 May	In-person	Session 7
20 May	In-person (Student Leaders)	Student Leader Meeting
24 May-7 July	**School & Rhodes holidays and exams**	
8-12 July	Online	Short Course Completion (Unit 3 & 4)
15-19 July	In-person	Session 8
22-26 July	In-person	Session 9
29 Jul-2 Aug	In-person	Session 10
12 August	In-person (Student Leaders)	Student Leader Meeting
12-16 Aug	In-person	Session 11
17-25 August	**Rhodes Holiday**	
26-30 Aug	In-person	Session 12
2-6 September	In-person	Session 13

TIME FRAME	MODALITY	ACTIVITY
10 July	Mid-year reflection meeting Partners & Student leaders to attend	
9-13 September	In-person	Session 14
16 September	In-person (Student Leaders)	Student Leader Meeting
16-20 September	In-person	Session 15
21-30 Sept	**School holidays**	
1-10 October	In-person	Post assessments conducted by Student Leaders
3 October	CE Awards	

Content of Sessions

Grade R (or the oldest group) children are split in 2 groups. One group should remain inside to participate in the fine motor skills and the other should go to a different venue (outside, if possible) to participate in the gross-motor development. After 20 minutes groups should swap to complete the session.

It should be noted that for the gross motor activities the group is further split. The size of the groups of children should not exceed 10 children at any activity 'station'. Gross motor activity 'stations' should take between 3-5 minutes to complete.

This content is aimed at 5-6 year olds ONLY.

Warm up Sheet

1. Head rotations

2. Shoulder up and down

3. Shoulder windmills

4. Finger flicks

5. Marching

6. Stretch

Session 1, 6, 11

Equipment needed

- 2x medium beach balls
- 9x bean bags
- 2x Large tennis balls
- 4x Cones
- 2x Hula-hoop
- Play dough
- Play dough mats

WARM - UP

ACTIVITY 1 (2 groups)

Children make a circle (sit crossed legged)
Pass medium beach ball to each other
First fast (hot potato) then slow (fragile egg)
2 times in one direction and then 2 times in opposite direction

Position in space
Crossing the midline

ACTIVITY 2 (big group)

Each pair given a bean bag
Children throw and catch bean bag between each other
Children first throw high
Children then throw low
Children catch with both hands
Children catch with either left or right

Position in space
Figure/ground coordination

ACTIVITY 3 (1 group)

Set up two cones 1.2m apart
Kick a large tennis ball between cones. 2 turns per child.

Directionality
Coordination

SWOP

ACTIVITY 4 (1 group)

Set up two cones in a line (1.2m apart)
Children dribble large tennis ball around cones and back to starting position
Each child has two turns

Position in space
Directionality
Coordination

ACTIVITY 5 (2 groups)

Children lie on stomach and throw 4 bean bags into hula hoop placed 0.5 m away

Position in space
Figure/ground
Strength

FINE MOTOR/VISUAL PERCEPTUAL GROUPS

Finger strengthening
- Play dough with accessories and play dough mats

Session 2, 7, 12

Equipment needed

- Rope
- 2x tennis ball
- 2x beanbags
- 4x hula hoop
- Threading beads, Lacing shapes, peg board, nuts and bolts

WARM - UP

ACTIVITY 1 (big group)

Children make a big circle
Children sit crossed legged on the floor
Children copy clapping game

- Both hands together at the same time (symmetrical movement)
- One at a time (alternating movement)
- Cross over clapping
- Other alternatives

Crossing the midline
Laterality
Directionality
Memory

ACTIVITY 2 (2 groups)

Mark a line on the floor (2m) using rope
The children stand in a line along the rope line on floor
Children pass the tennis ball to the child behind them over their heads.
Children then pass the tennis ball back between their legs
Children complete this relay X2

The children stand in a line along the rope line on floor
Children pass the bean bag to the child behind them over their heads.
Children then pass the bean bag back between their legs
Children complete this relay X2

Figure/Ground coordination
Position in space

ACTIVITY 3 (2 groups)

Mark out a line on the floor (1.5m) using rope
Children jump along line feet together
Children jump on each side of the line back

Memory
Figure/Ground
Consistancy

ACTIVITY 4 (2 groups)

Lay out 2 hula hoops on the floor in a line
Children must jump with one foot when outside the hula hoop and then with two feet when inside the hula hoop.

Figure/Ground
Position in space

ACTIVITY 5 (2 groups)

Mark a line on the floor (2m) using rope
Children skip along the line and back using a hula hoop (hold hula hoop with both hands twist hula hoop over child's head and jump through)

Coordination
Position in space
Rhythm

FINE MOTOR/VISUAL PERCEPTION GROUPS

Manipulation
- Threading beads, lacing shapes, nuts and bolts

Session 3, 8, 13

Equipment needed

- Rope
- 8 x chairs
- 2 x beanbags
- Lego

WARM - UP

ACTIVITY 1 (big group)

Floor push ups: children sit cross legged on the floor and places arms at their sides. Children straighten arms and slowing lift their body weight off the floor. Children then relax their arms and return slowly to the sitting position.
Activity carried out for 3 counts, 4 counts, 5 counts, 6 counts and repeat.

Directionality
Strength
Crossing the midline

ACTIVITY 2 (2 groups)

Set up 2 chairs in two rows
Children must leopard crawl (child to lie on their tummy and then to move forward using their elbows to pull themselves along) under chairs.
Once the child has reached the end they must turn around and leopard crawl back through chairs to the starting position.

Laterality
Position in space
Discrimination

ACTIVITY 3 (2 groups)

Set up 2 chairs in two rows
Children must walk around chairs with a bean bag balanced on their head.
Repeat activity with bean bag placed between their knees.

Balance
Laterality

ACTIVITY 4 (2 groups)

Mark out a line on the floor (1.5m) using rope
Children to walk sideways like a crab to the end of the line
Children must turn around and walk on their knees back to the starting position.

Directionality
Coordination
Strength

ACTIVITY 5 (big group)

Children sit crossed legged in a circle and play game called "duck duck goose".
One child stands up and walks around the circle tapping each child on the head and saying duck, when they say goose, that child gets up and tries to catch them.

Rhythm
Crossing the midline
Sense of time

FINE MOTOR/VISUAL PERCEPTION GROUPS

Construction play
- Lego

Session 4, 9, 14

Equipment needed

- Rope
- 6x beanbags
- 4x cones
- 2x stilts
- 8x tennis balls
- Colouring in, cutting sheets, drawing

WARM - UP

ACTIVITY 1 (2 groups)

Children make a circle (kneeling)
Pass bean bag to each other
First fast (hot potatoe) then slow (fragile egg)
2 times in one direction and then 2 times in opposite direction

Laterality
Crossing the midline
Discrimination

ACTIVITY 2 (2 groups)

Make a line on the floor using rope - 2m
Children first walk forward along a line
Children secondly walk backwards along the line
Repeat twice

Coordination
Figure/Ground
Balance

ACTIVITY 3 (2 groups)

Make a line on the floor using rope - 2m
Children jump like a frog along the line
Children turn around and walk like a bear on all fours back

Rhythm
Directionality

ACTIVITY 4 (2 groups)

Set up two cones 1.5m apart
Children walk on slits between the cones

Coordination
Figure/Ground
Laterality

ACTIVITY 5 (2 group)

Place 2 cones on ground (1m) away
Children lie on stomachs and roll tennis balls between the cones

Strength
Position in space

FINE MOTOR/VISUAL PERCEPTION GROUPS

BASIC FINGER PLAY
Try the following...

1. Tap each finger to your thumb
2. Put your hands together, then one by one try to tap each finger together (thumb, index,middle etc.)
3. Draw finger faces and tell a story together with your characters
4. Sing songs with finger actions (eg. Incy wincy spider; 1, 2, 3, 4, 5 once I caught a fish alive)

Session 5, 10, & 15

Equipment needed

- Masking tape
- Brainy blocks, dotty designs, matching games

WARM - UP

ACTIVITY 1 (big group)

Children copy different positions demonstrated in 'Simon Says' fashion.

Rhythm
Matching
Coordination

ACTIVITY 2 (big group)

Children pair up
Children play clapping game in pairs
Children play row row your boat (with bent knees and feet touching)

Laterality
Directionally
Figure/Ground

ACTIVITY 3 (2 groups)

Rope a line on the floor 2m
Children first walk forward heel to toe along a line
Children secondly walk backwards heel to toe alone the line
Repeat twice

Coordination
Figure/Ground
Balance

ACTIVITY 4 (2 groups)

Rope a line on the floor 2m
Children must jump on either side of the line and on the line in a sequence
Repeat twice

Memory
Rhythm

ACTIVITY 5 (big group)

Children sit crossed legged in a circle and play game called "duck duck goose".

One child stands up and walks around the circle tapping each child on the head and saying duck, when they say goose, that child gets up and tries to catch them.

Rhythm
Sense of time
Crossing the midline

FINE MOTOR/VISUAL PERCEPTION GROUPS

Tongs & tweezers

Use the tongs/tweezers to move the beans and organise them in the container

Monitoring and Evaluation forms

Child's name and surname:

School:

5 YEAR OLDS (birthday in the last half of the year Jul-Dec)

	First Assessment	Final Assessment
	Assessor:	Assessor:
	Date:	Date:

GROSS MOTOR DEVLOPMENT

1	Stands on one leg for 12 seconds (eyes open) *Almost= 8 sec.*	Yes	Almost	No	Yes	Almost	No
2	Walks heel-to-toe Almost= straight line w/ gaps or w/ accurate correction	Yes	Almost	No	Yes	Almost	No
3	Hops on one legs for 6m *Almost= 3m*	Yes	Almost	No	Yes	Almost	No
4	Stands on tip toes for 10 seconds *Almost= 6 secs*	Yes	Almost	No	Yes	Almost	No
5	Bounces and catches a large ball 5 times in a row *Almost= 3 times*	Yes	Almost	No	Yes	Almost	No
6	Throws a bean bag backwards of their head *Almost= throws up*	Yes	Almost	No	Yes	Almost	No
7	Marches with alternative arm to leg *Almost= same arm & leg*	Yes	Almost	No	Yes	Almost	No
8	Jumps over large tennis ball and lands with both feet *Almost= jumps around or w/ one foot after the other*	Yes	Almost	No	Yes	Almost	No

FINE MOTOR DEVLOPMENT

9	Touches each finger with thumb in 8 seconds *Almost= 10-12secs*	Yes	Almost	No		Yes	Almost	No
10	Build a tower of 9 blocks	Yes	Almost	No		Yes	Almost	No
11	Holds a pencil with immature grip	Yes		No		Yes		No

VISUAL PERCEPTION

12	Writes name	Yes	Almost	No		Yes	Almost	No
13	Copies small letters *Almost= 3/5*	Yes	Almost	No		Yes	Almost	No
14	Identifies and names shapes *Almost= 3/5*	Yes	Almost	No		Yes	Almost	No
15	Threads beads according to a pattern *Almost= 1 pattern rep*	Yes	Almost	No		Yes	Almost	No
16	Identifies left and right with help *Almost= told once*	Yes	Almost	No		Yes	Almost	No
17	Completes VMI Task (worksheet)	Yes	Almost	No		YES	Almost	No

What is your name?

a h y p x v

6 YEAR OLDS (birthday in the first half of the year Jan-Jun)

Child's name and surname:

School:

	First Assessment	Final Assessment
	Assessor:	Assessor:
	Date:	Date:

GROSS MOTOR DEVLOPMENT

1	Stands on one leg for 8 seconds (eyes closed) *Almost= 5 secs*	Yes	Almost	No	Yes	Almost	No
2	Walks backwards heel-to-toe	Yes	Almost	No	Yes	Almost	No
3	Hops on one legs for 6m	Yes	Almost	No	Yes	Almost	No
4	Stands on tip toes for 10 seconds	Yes	Almost	No	Yes	Almost	No
5	Bounces and catches a tennis ball 5 times	Yes	Almost	No	Yes	Almost	No
6	Throws a ball in the air and catches it	Yes		No	Yes		No
7	Kicks a ball accurately to a facilitator (2m) *Almost= right direction but not aimed well (within 1 m)*	Yes	Almost	No	Yes	Almost	No
8	Throws and catches a beanbag to a facilitator	Yes	Almost	No	Yes	Almost	No

FINE MOTOR DEVLOPMENT

9	Touches each finger with thumb in 5 seconds *Almost= 8-10 secs*	Yes	Almost	No	Yes	Almost	No
10	Holds a pencil correctly *Almost= immature grip*	Yes	Almost	No	Yes	Almost	No
11	Draws a person with 8 parts *Almost= 5 parts*	Yes	Almost	No	Yes	Almost	No

VISUAL PERCEPTION

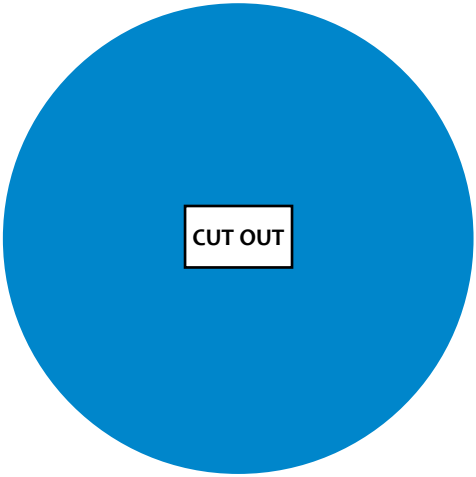
12	Writes name **and surname** *Almost= one name*	Yes	Almost	No	Yes	Almost	No
13	Writes number 1-10 *Almost= 6/10*	Yes	Almost	No	Yes	Almost	No
14	Cuts out circles and around corners	Yes	Almost	No	Yes	Almost	No
15	Threads beads 8 beads in 25 seconds *Almost= 30-35 secs*	Yes	Almost	No	Yes	Almost	No
16	Identifies left and right without help	Yes	Almost	No	Yes	Almost	No
17	Completes VMI Task (worksheet)	Yes	Almost	No	Yes	Almost	No

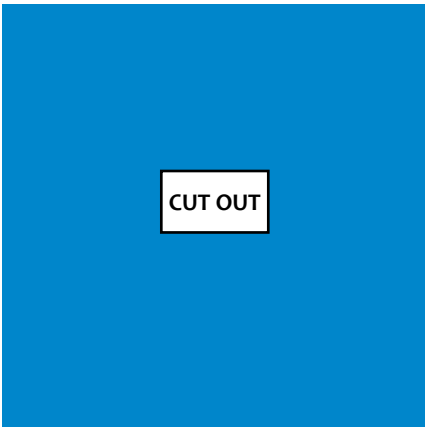
What is your name and surname?

_____

DRAW A PERSON

WRITE NUMBERS 1-10





Student Weekly Reflection

Session 1

Name:

Student number:

Session attended?

School?

What was your expectation of your first engagement?

- ☐ Positive
- ☐ Chaotic
- ☐ Friendly
- ☐ Intimidating
- ☐ Confusing
- ☐ Other- please describe

What was your experience of the first session?

- ☐ Positive
- ☐ Chaotic
- ☐ Friendly
- ☐ Intimidating
- ☐ Confusing
- ☐ Other- please describe

How would you describe the situation of your volunteer site? (max. 100 words)) Describe the resources available at the school (e.g.

Did you feel like the children enjoyed the session ? How? (50 words max!)

Did you feel the children benefitted from the session? How? (50 words max!)

Did you feel the programme was appreciated and accepted at the school?

Do you feel like you contributed to the development of a young child?

Session 2

Name:

Student number:

Session attended?

School?

Immediate value
How does participation in BuddingQ feel for you?

How would you describe you experience of your BuddingQ volunteer site?

What have you learnt as a result of your participation in BuddingQ so far?

Session 3

Name:

Student number:

Session attended?

School?

How many children (on average) were in your groupWhat percentage of children do you feel have improved skills after the session?

What was a 'stand out' moment during your session?

What did you learn from this session?

What do you need to improve on for the next session?

Session 4

Name:

Student number:

Session attended?

School?

Potential & Applied value

What ideas, insights, solutions or methods have arisen from your experience in BuddingQ?

How could these change BuddingQ?

How do you think these could/should be used in BuddingQ programme design?/What should BuddingQ coordinators do with your ideas/insights/solutions/methods?

Session 5

Name:

Student number:

Session attended?

School?

How many children (on average) were in your group?

What percentage of children do you feel have improved skills after the session?

What was a 'stand out' moment during your session?

What did you learn from this session?

What do you need to improve on for the next session?

Session 6

Name:

Student number:

Session attended?

School?

TRANSFORMATIVE VALUE DEFINITION

In the social learning model, "transformative value" refers to the value that is created as a result of a change in behavior or belief. This change in behavior or belief can lead to a shift in norms and practices within a community, ultimately leading to improved outcomes for all members of that community.

One of the key insights of the social learning model is that individuals and groups can learn from one another through observation and communication, and that this learning process can lead to the creation of transformative value. For example, if one person in a community starts using a new farming technique that leads to higher crop yields, others in the community may observe this and adopt the technique as well. This can then lead to a shift in the community's farming practices and an overall increase in food production.

Transformative value can also come from changes in beliefs and norms. For example, through social learning, a community may adopt a new belief in the importance of education, which could lead to changes in behavior such as increased enrollment in schools and a higher value placed on education. This could lead to improvements in educational outcomes for community members and a broader transformative impact on the community as a whole.

The transformative value from this model is that this type of learning can help to overcome the challenges of collective action, and can lead to the creation of sustainable and equitable outcomes for a community.

What do you think the transformative value of BuddingQ is?

Session 7

Name:

Student number:

Session attended?

School?

Orienting value

What have you discovered about literacy in South Africa, through BuddingQ (training and practical)?

How does this broader framework and training influence your experience?

Session 8

Name:

Student number:

Session attended?

School?

Enabling value

In your view, who are the people that enable BuddingQ? You can list more than one.
How do these people enable BuddingQ?

What resources have been mobilised to make BuddingQ a reality?

Session 9

Name:

Student number:

Session attended?

School?

How many children (on average) were in your group?

What percentage of children do you feel have improved skills after the session?

What was a 'stand out' moment during your session?

What did you learn from this session?

What do you need to improve on for the next session?

Session 10

Name:

Student number:

Session attended?

School?

Strategic value

Likert Scale: No influence to High influence

- What level of influence do you think teachers have in BuddingQ?

- What level of influence do you think student leaders have in BuddingQ?

- What level of influence do children have in Buddings?

- What level of influence does the programme coordinator have in BuddingQ?

Can you describe the relationships that you observe in your BuddingQ experiences?

How would you describe the fairness of these relationships?

Session 11

Name:

Student number:

Session attended?

School?

Has your experience in BuddingQ changed over time? What were the reasons for this?

In what ways has BuddingQ impacted your academic journey this year?

How would you describe the value of BuddingQ?

Session 12

Name:

Student number:

Session attended?

School?

How many children (on average) were in your group?

What percentage of children do you feel have improved skills after the session?

What was a 'stand out' moment during your session?

What did you learn from this session?

What do you need to improve on for the next session?

Session 13

Name:

Student number:

Session attended?

School?

What is your understanding of Community Engagement? (50-100 words)

What was your experience of the last session compared to your first session?

- ☐ Positive
- ☐ Chaotic
- ☐ Friendly
- ☐ Intimidating
- ☐ Confusing
- ☐ Other- please describe

How would you describe the situation of your volunteer site? (max. 100 words)

Did you feel like the children enjoyed the sessions? YES/NO

Did you feel the children benefitted from the session? How? (50 words max!)

Did you feel the programme was appreciated and accepted at the school? YES/NO

Do you feel like you contributed to the development of a young child? YES/NO

Session 14

Name:

Student number:

Session attended?

School?

Transformative value

Did your participation in BuddingQ affect different aspects of your life?

Do you think BuddingQ has affected the culture of Rhodes? How?

Do you think BuddingQ has affected the culture of the school? How?

Do you think BuddingQ has an effect on broader society? If so, what is that effect?

Session 15: Programme evaluation

Name:

Student number:

Session attended?

School?

What worked well in the program?

What could be improved to make the programme better?

What should be removed from the programme?

How has the programme worked to improve your understanding of Community Engagement?

Do you feel this programme adequately contributes to the preparation of school readiness and literacy?

Would you recommend the programme to your peers? YES/NO

Would you like to be a student leader next year? YES/NO

Logistics

Resources

Each week a member of the volunteer group will need to fetch and return the resource box from the Community Engagement office.

Child Protection

Please be aware of the laws and policies that protect children, particularly when taking photos. Teacher's should be aware and give consent prior to you doing it. Please be alert to the place you share the photos too.

Certificate

Please note that in order to receive your certificate at the end of the year, volunteers and partners need to attend a minimum of 80% of the sessions, complete all of their reflections and complete practical and online training.

Additional Reading

School readiness: why it is so important

prepared by Sinmarie Pieterse

Today we know more than ever before about how young children develop and about how to best support early learning.

The first five years of life are critical to a child's lifelong development. Young children's earliest experience and environment set the stage for future development and success in school and life.

Early experience actually influences brain development, establishing the neural connections that provide the foundation for language, reasoning, problem solving, social skills, behaviour and emotional health. Therefore it is of utmost importance that we prepare and develop our children's potential and ability to learn to the utmost in this phase.

School going age

A child is obliged to go to school in the year that they turn 7, whether it is 1 January or 31 December unless they obtain school exemption for the year.

What is school readiness?

A child's readiness for school is multi-faceted, encompassing the whole range of physical, social, emotional, language and cognitive skills that children need to thrive. School readiness is a measure of how prepared a child is to succeed in school, cognitively, socially and emotionally.

It also implies that the child has reached a certain stage in their development where formal education will be advantageous to the child.

"Readiness is a stage where a child's development is when they can learn easily, effectively and without emotional disturbance. It can not be defined in a point of development, however, because growth is a steady continuous process, always ongoing. Rather it is a condition, or state indicating that the child is ready to learn."

The domains of school readiness

These domains are separate and distinct, but interact with and reinforce each other. The need for children to develop across all five domains is supported by pre- primary school teachers.

1. Physical and Motor development and physical health
2. Emotional and social development
3. Cognitive development
4. Language development

Physical, motor development and health

i. **Gross motor development**
Co-ordination should be well developed. The child should be able to perform a variety of gross motor acts including climbing, walking, running, skipping, catching a ball and standing on one leg.

ii. **Fine motor development**
The child should be comfortable to be able to use a pair of scissors, pencils, crayons, cutlery and simple implements.

iii. **Perceptual development**
This will enable them to interpret in a meaningful manner. The child must be able to perceive and reproduce correctly on a visual-motor level. They must be able to conceptualize and perceptualize. These perceptual abilities are extremely important.

Visual perception is particularly important in writing, reading, copying, pasting etc. Auditory perception is important in listening; a child must not only be able to hear, but also to listen.

iv. Self-care

The basic self care skills such as dressing oneself, tying shoelaces and buttoning up should be developed as should hygiene routines such as toileting, washing of hands and face.

v. Physical health

The child should be physically healthy in order to attend and perform within the school environment. The following should be carefully monitored and where applicable the necessary intervention should be implemented by a suitable or qualified person.

Move to literacy: fanning emergent literacy in early childhood education in a pedagogy of play

Abstract

A literate child is one who is able to read, write, speak and listen. Literacy begins at birth, and continues steadily as children develop. The explicit processes that form emergent literacy are for example, phonemic awareness, letter and word recognition, vocabulary enrichment and structural analysis. These literacy practices are well documented and articulated. But how these practices and the knowledge, skills, attitudes and values (KSAVs) that underpin them are best acquired by young children is contested. This paper argues that an early childhood education (ECE) approach, which fans literacy, should follow a quality play-based approach that embraces a pedagogy of play that foregrounds how children learn through play, and how teachers teach through play. In combining two constructs 'pedagogy' and 'play', we propose an approach that is underpinned by movement and other appropriate learning activities, which support the development of perceptual-motor behaviours and sensorimotor integration in a pedagogy of play. We argue that perceptual-motor behaviours and sensorimotor integration are the 'invisible' pathways to literacy. They provide young children with many and varied, incidental, implicit and explicit learning opportunities. A more informal, play-based approach towards teaching and learning appears to be a successful way of nurturing literacy processes.

Keywords:
pedagogyofplay; sensorimotorintegration; perceptualmotor development; early literacy; learning dispositions

Mrs Lorayne Excell & Mrs Vivien Linington, University of Witwatersrand.
E-mail: lorayne.excell@wits.ac.za & vivien.linington@wits.ac.za.

South African Journal of Childhood Education | 2011 1(2): 27-45 | ISSN: 2223-7674 |© UJ

Introduction

A literate child is one who is able to read, write, speak and listen (Hill, 2006). Literacy begins at birth, and continues steadily as children develop (Hill, 2006). The explicit processes that form the road to literacy are, for example, phonemic awareness, letter and word recognition, vocabulary enrichment and structural analysis. These literacy practices are well documented and articulated (Heilman, Blair & Rupley, 1994; Hill, 2006). But how these practices, and the knowledge, skills, attitudes and values (KSAVs) that underpin them, are best acquired by young children is contested terrain.

There is an increasing body of knowledge that posits that initial exposure to literacy practices should not be done through formal explicit instruction. As Werner (in Crain, 2005) emphasises, preschool teachers should not focus on any specific intellectual process, such as literacy, without considering the broader context out of which it develops. Werner argues that we first need to consider how literacy can develop out of rich experiences with oral language and other symbolic activities. Providing young children with many, varied incidental and implicit learning opportunities through a more informal play-based approach towards teaching and learning appears to be the most successful way of nurturing the literacy processes (Riley, 2003).

Yet despite this knowledge claim, there appears to be an increasing emphasis on more formal literacy practices in preschools including the Grade R year. School- based observations in Gauteng (WsoE, 2009) show that there is growing emphasis on worksheets and formal literacy instruction. And there is no reason to presume that these findings differ for the rest of South Africa (SAIDE, 2010). The teaching of (formal) literacy skills has become 'classroom bound' with an overemphasis on paper and pencil tasks, as well as drilling and rote learning, which is often decontextualised and carries no meaning for the children involved in these activities. This, in turn, has led to decreased opportunities for children to experience appropriate fine motor and gross motor movement, be this through creative art activities, playing with educational games or enjoying outdoor free-play. Is this in the best interests of the young child and later formal literacy practices? We argue to the contrary.

Recent research evidence (Gallahue & Donnelly, 2003; Ayers, 2005; Isbell & Isbell, 2007) shows unequivocally that children's successful academic learning is enhanced when they are given sufficient and appropriate opportunities to move. It is through movement that the essential perceptual-motor skills and concepts[1], and sensorimotor integration[2] (those implicit processes and 'invisible' pathways that underpin literacy learning) are best developed. In addition, these 'invisible' pathways provide the foundations upon which formal literacy instruction is based.

Yet, there appears to be a dearth in emergent and early literacy research into the role of movement and the perceptual-motor skills and concepts, as well as the 'invisible' pathways that underpin literacy and its four major components; listening, speaking, reading and writing.

Through this paper we aim to heighten awareness of the importance of early childhood education (ECE) pedagogy that promotes, through movement activities (as well as other activities), the development of these 'invisible' pathways, and thus provides the fundamental building blocks on which more formal literacy practices depend.

Our expertise is in ECE. We are neither biokinetisists nor neurophysiologists. The rationale behind this paper emanates from our growing concern over the increasing formalisation of ECE programmes despite overwhelming evidence illustrating the value of play-based programmes that offer appropriate movement opportunities. Are there not, we ask, other ways of conceptualising ECE pedagogy that will offer alternative forms of practice to ECE teachers who are following more formal programmes "because we have to get children ready for the demands of Grade 1", and because "there is a increasing demand to teach children the three Rs – reading, writing and arithmetic?" (WSoE, 2009).

We hope that, by setting out these pathways more explicitly and showing how they can be developed through the implementation of appropriate ECE pedagogy, we will heighten awareness of the value of appropriate and relevant ECE learning programmes.

Therefore, in this paper we begin by defining what comprises these implicit processes or invisible pathways. We, then, argue that they are best nurtured through a more informal play-based approach to early learning that acknowledges the importance of movement, as well as other play-based activities for maximising learning in the young child. Thirdly, we suggest that to meet the challenges of teaching and learning in a 21st century context, a particular form of play, a pedagogy of play (Wood, 2009) can best act as a catalyst for fanning the emergence of the perceptual-motor skills and concepts, and the simultaneous development of sensorimotor integration. This integration is integral to academic achievement and appropriate learning behaviours (Ayers, 2005; Isbell, C. & Isbell, R., 2007). In short, for the preschool child play and movement are critical to the development of literacy. And a teacher who understands this will be an integral and effective part of the child's quest to acquiring literacy.

The 'invisible' pathways to literacy

One of the first ways children learn is through their senses, that is, as they hear, see, smell, taste and feel. Information gathered through the senses, namely, sensations, elicits an electro-chemical response. According to Ayers (2005), the sensations we experience provide three different sets of information. The first set tells us where our body is in space and how it is moving. This set of information is provided in two ways. Firstly, by proprioceptors, which process the input about body parts and the body's position in space. This information is received through the muscles, ligaments and joints. For example, we see a step and know we have to move our lower body appropriately. And secondly, by the *vestibular receptors*, which process input about movement, gravity and balance and receive this input through the inner ear (Kranowitz, 1998).

The second set of information comes from the *exteroceptors*, which are linked to the five senses and enable us to respond to sensations or input coming in from outside the body. For example, we see a dog snarling and back away or we hear a baby cry and run to comfort the child.

The third set of information comes through the *interoceptors*, which alert us to sensations coming from the visceral (internal) organs in the body. If, for example, you feel your pulse you are able to pick up the rhythm of your heartbeat.

When sensations from these three information sources are successfully integrated, the brain can use these sensations to perceive and provide an appropriate motor response or action. In other words, the senses enable us to draw in information from a variety of sources, to interpret this information (or sensations) in the brain and then respond appropriately. For example, when a child is riding a bicycle, s/he sees a road sign, interprets it as a warning to slow down and applies the brake.

The impressions gained through the senses, therefore, give rise to meaning and subsequent action (Arnheim & Pestolesi, 1978). A child's ability to interpret input from the senses3, and respond through movement is inextricably linked to their ability to understand and control their environment effectively (Lundsteen & Tarrow, 1981). This assertion illustrates the inseparable nature of the relationship between cognitive and motor development. Gallahue, Werner and Luedke (1975, p. viii) capture this notion succinctly when they comment "as the child learns to move he moves to learn".

The idea that body movement is a fundamental component in young children's learning is not new (Gerhardt, 1973, p. xi), but research (WSoE, 2009) showed that in Grade R movement is being sidelined to meet the more formal pedagogical demands. And this amounts to a lost opportunity to develop gross and fine motor skills, as well as other neuro-physical aspects of learning, since through the exploration of movement the child is able to adjust to, understand and ultimately master his environment (Gallahue, Werner & Luedke, 1975, p. 4). The young child must overcome the pull of gravity in order to sit and stand, he must develop his basic locomotor abilities so he can move through space, and he must be able to handle objects to which he relates (Gallahue *et al*., 1975, p. 42). As Gabbard (2008), Robinson and Goodway (2009) note, mastery of fundamental movement skills in early childhood are the building blocks for more complex movement, and play an important role in the overall development of school readiness.

In the early years gross motor skills are necessary for movement, as well as to stabilise and control the body. Through gross motor skills children improve their posture, sense of balance and co-ordination. This, in turn, enables children to develop fine motor skills that are essential for success during the subsequent school years (Gallahue & Ozmun, 1998; Gallahue & Donnelly, 2003). It is through the successful acquisition of gross and fine motor skills that the different perceptual-motor behaviours become refined.

Perceptual-motor development, sensorimotor integration

Perceptual-motor development, which results in a range of perceptual-motor behaviours, is a process that starts at birth (if not before) and increases in complexity during the formative years. By the age of six or seven the perceptual-motor behaviours are generally refined (Gallahue & Donnelly, 2003). There are three broad categories of perceptual-motor behaviours all of which are closely linked to the development of early literacy. The three categories are:

- *Spatial awareness and orientation behaviours*, which refer to children's understanding of their bodies and what their bodies can do, and includes body awareness and body image that are, of course, closely related. Spatial awareness and orientation behaviours also embrace a child's awareness of their position in space in relation to other objects, the ability to cross both the vertical and horizontal midlines[4], and to understand the concepts of directionality and laterality.

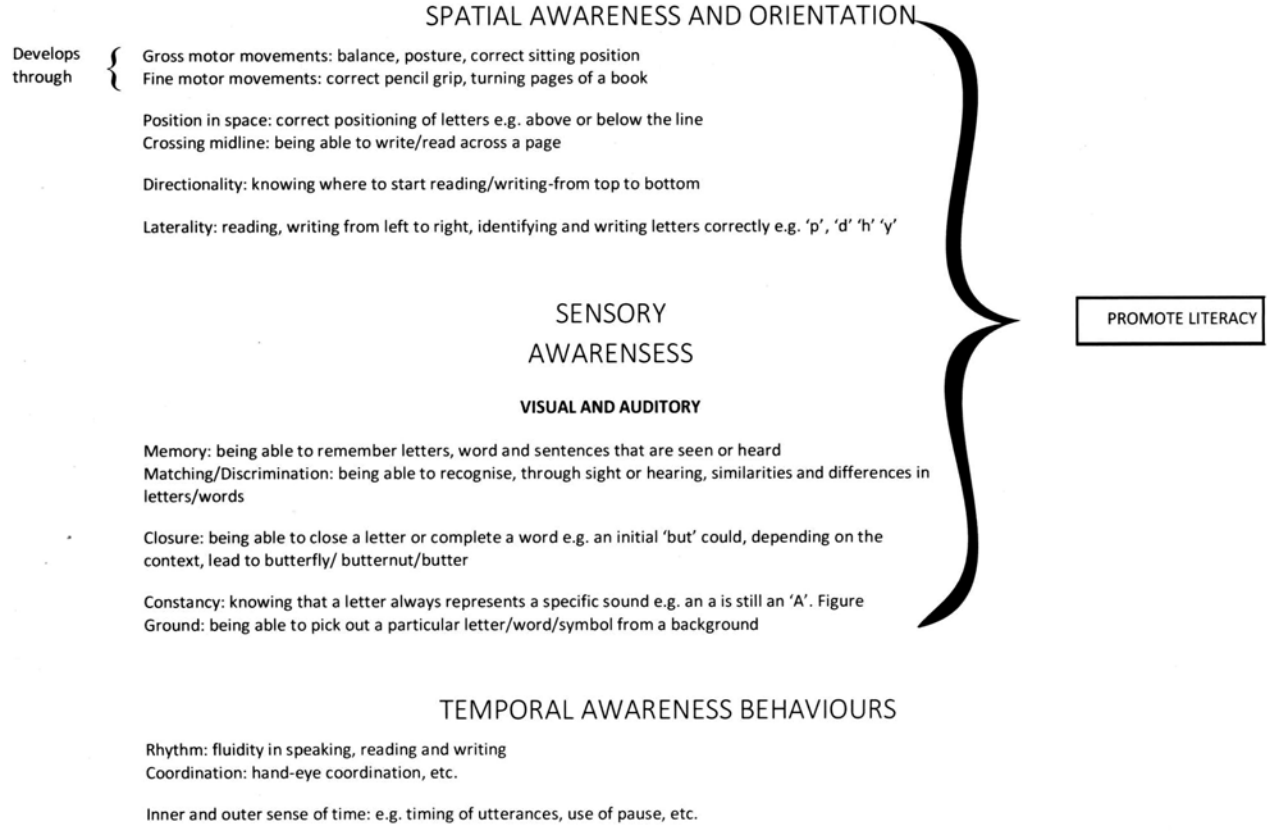
- *Sensory awareness behaviours*, which refer to children's ability to respond to sensations perceived[5] through the five senses. For successful academic learning, the development of two sensory motor behaviours in particular is crucial, namely auditory and visual perceptual-motor awareness. Examples of these perceptual- motor behaviours include visual and auditory memory (being able to remember what has been seen or heard), matching (being able to recognise when images or sounds are the same), discrimination (being able to tell the difference between images or sounds), and closure (seeing or hearing, for example, the first part of an image or sound and then being able to envisage the image or sound as a whole). Listening is, of course, another important auditory perceptual-motor behaviour, which children should acquire.

- *Temporal awareness*, which refers to children's ability to develop an inner and outer sense of time. This includes co-ordination and rhythmic movements.

Figure 1 (pp. 49) outlines perceptual-motor development and behaviours, and, in the process, illustrates how the acquisition of these behaviours provides a foundation on which more formal literacy learning can be based.

As already mentioned, perceptual-motor behaviours underpin the successful acquisition of literacy (and other academic) knowledge, skills, attitudes and values. But the mere acquisition of these perceptual-motor behaviours is not enough to enhance academic learning. Children also have to develop the ability to integrate these behaviours to ensure that their body functions as a smooth flowing unit, when responding to different sensations. Handwriting, for example, is dependent on this integration. In Grade 1, a teacher might demonstrate the formation of the letter 'a' on the board. For the learner the process should, then, proceed as follows:

Figure 1: Perceptual-motor development and behaviours supporting links to literacy



- Listen to the teacher as she explains the steps required to form the letter itself (auditory awareness);
- Observe how the teacher forms the letter on the board (visual awareness);
- Process these two sources of information in the brain; and
- Respond through appropriate movement, i.e. form the letter themselves in their books. This is a motor response, which is dependent on a number of different skills; gross and fine motor co-ordination (itself an inextricable part of the successful sensorimotor integration), auditory and visual cues (such as memory), hand-eye co-ordination, and spatial awareness and orientation (Charlesworth, 2004).

The successful formation of the letter 'a', therefore, draws on the combination of all aforementioned factors plus others, which we have not listed or discussed here.

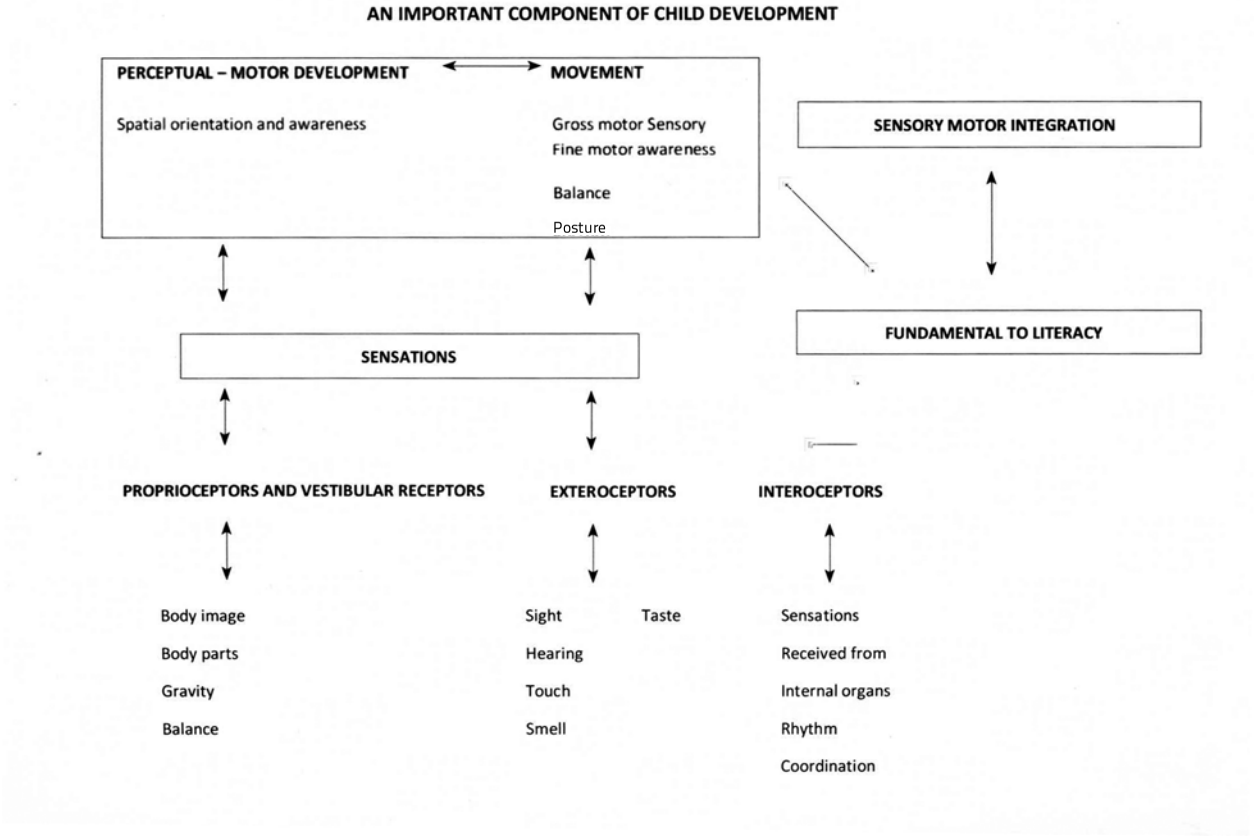
This ability to integrate different perceptual-motor behaviours, such as those described above, is called sensorimotor integration, and refers to the process of organising sensory inputs (sensations) so that the brain produces a useful/meaningful body response and also useful perceptions, emotions and thoughts. Sensory integration sorts, orders and eventually puts all sensory input together into a whole- brain function (Ayers, 2005).

Figure 2 (pp. 51) provides a diagrammatic representation of the cyclic nature of sensorimotor integration and its fundamental link to the learning of literacy.

Sensorimotor integration is an unconscious process of the brain that is geared to organising information detected by the senses (taste, touch, sight, hearing, smell, movement, gravity and position). It gives meaning to what is experienced by sifting through all the information, and then selecting what to focus on, for example, listening to the teacher and not the noise in the playground. Furthermore, it allows us to act or respond to the situation in a purposeful manner.

The acquisition of perceptual-motor behaviours, and successful sensorimotor integration are extremely complex processes, which appear to be best acquired through appropriate movement activities (Gallahue & Donnelly, 2003; Ayers, 2005; Isbell & Isbell, 2007). This contention is further supported by findings of research conducted on the brain by Bransford, Brown and Cocking (1999). In recent years findings from brain research confirm the neural plasticity of the young child's brain; and illustrate that appropriate experiences, which elicit adaptive responses, enhance the interconnectivity of neurons. Appropriate movement experiences stimulate and develop the neural pathways, which allow us to take in information from the world (sensations), interpret it (in the brain) and then to respond (motor movements). Appropriate learning experiences enhance the interconnectivity between the neurons (different nerves), and establish many different neural pathways. The optimal arranging of neural pathways, through appropriate learning experiences, promotes sensorimotor integration, including the development of perceptual-motor skills and concepts,

Figure 2: A diagrammatic representation of the cyclic nature of sensory motor integration – an important component of child development



and underpins academic learning and social behaviours, such as literacy behaviours. We are not suggesting that development can, or should, be accelerated through movement, as this is a highly contested issue (Dahlberg, Moss & Pence, 1999; Mac Naughton, 2003; Penn, 2008). Instead, we are arguing that appropriate movement activities have the potential to maximise learning in young children, because of the role movement plays in the development of the invisible pathways.

Consequently, the more opportunities/experiences that children have to develop these invisible pathways and neural interconnectivity, the more effectively the neural pathways are established with positive consequences for later academic learning. And many of these opportunities and experiences are provided through appropriate movement and play opportunities.

In short, through exploration and guided experiences, fundamental movement patterns become an inherent part of games, skills, rhythms, and self-testing activities. For this to happen, it is essential that children experience many different types of movement and these experiences, we suggest, might best be offered through a pedagogy of play.

A pedagogy of play

Children's learning is best supported through a play-based, informal approach towards teaching and learning that promotes the holistic development of children (Pellegrini, 1991; Spodek, Saracho & Davis, 1991; Moyles, 1989; 1994; Gordon & Browne, 2008). As Riley (2003, p. xx) writes *"play-based activities appear to meet all [...] educational aims."* Hence, it could be argued that there is a general consensus that high-quality, well-planned and developmentally appropriate experiences will use play to promote learning (Pellegrini, 1991; Pramling-Samuelsson, 2005; Pramling-Samuellsson & Carlsson, 2008).

This assertion was acknowledged by Vygotsky who saw play as a leading factor in child development. He argued, in fact, that play, like schooling, also operated in advance of development. *"In play a child is always above his average age, above his daily behaviour, in play it is as though he were a head taller than himself"* (Vygotsky, 1978, p. 129). Optimising play and realising the potential of a play-based curriculum in the early years is one of the ongoing challenges that ECE faces in this millennium, especially as the pervasive worksheet culture appears to be tightening its grip on Grade R in particular (WSoE, 2009). The challenge that this 'formal creep' presents resonates with Wood's (2009, p. 29) assertion that:

Although contemporary curriculum models endorse play within integrated pedagogical approaches, achieving good quality play in practice remains a considerable challenge, particularly [...] where teachers face competing demands for accountability, performance and achievement, and competing notions of what constitutes effective teaching and learning.

Following the articulation of this challenge, more contestation and heated debates have emerged. As Wood (2009, p. 27) notes *"linking play and pedagogy becomes a contentious issue*

because of the ideological commitment to free play." This contention is due in part to disparate understandings of the constructs 'play' and 'pedagogy' and the fact that some ECE educators see these two terms as dichotomous. As Rogers (2011) states, the words play and pedagogy, taken separately, are viewed in educational discourse as disparate. Each word has its own particular meaning and its own particular form of power that impact teaching and learning. Furthermore, teachers' understandings of pedagogy usually take as their starting point the adult's role in providing an environment and strategies that support the process of teaching and learning (Rogers, 2011).

One way of addressing this perceived disjuncture between pedagogy and play, and maximising the power inherent in both terms, is to rethink our understanding of pedagogy in relation to the characteristics and benefits of play (Wood, 2009; Rogers, 2011). We would agree with their position as these two terms, when interwoven, could enrich learning and teaching. But what is a pedagogy of play?

A 'pedagogy of play' is defined by Wood (2009) as:
The ways in which early childhood professionals make provision for play and playful approaches to learning and teaching, how they design play/learning environments, and all the pedagogical decisions, techniques and strategies they use to enhance learning and teaching through play (p. 27).

This definition places the teacher in a specific role, which involves the planning and implementation of an interactive, learning environment that offers children challenging and stimulating choices that, in turn, promote holistic development. Through a pedagogy of play, teachers can provide opportunities for free play and spontaneous movement activities, as well as guided movement experiences designed to support specific aspects of gross motor, fine motor and perceptual-motor development, which, in the end, facilitate emergent literacy in young children.

For Vygotsky (1978) play is a crucial area in development. He recognised that children learn through social relationships and interactions. In fact he saw play as creating a zone of proximal development in which children function at a higher level than they do during everyday tasks. He believed that both adults and more skilled children can nurture this learning by supporting, explaining and extending the experience further. Such acts could be seen as purposeful and this concurs with Wood's claim that in a pedagogy of play, learning and teaching through play, is purposeful. As Wood, (2009, p. 27) comments:

Play is sustained through reciprocal and responsive relationships, and is situated in activities that are socially constructed and mediated. While children's interests remain central to curriculum planning the subject disciplines enrich and extend the children's learning.

This assertion again places the teacher in a critical role. For a creative, flexible ECE teacher focused on developing early literacy in the context of whole child development,

a pedagogy of play can open new literacy pathways. In fact, a pedagogy of play is almost limitless in its potential to optimise learning. But the optimisation of that potential lies, to a large degree, with the teacher and his/her interpretation of curriculum. As Wood (2009, p. 27) notes, a curriculum informed by a pedagogy of play can include the ways in which children "act as playful pedagogues in their self- initiated activities". It is this notion of playfulness that should be a central informing source as ECE teachers experiment with alternative strategies for implementing an effective play-based curriculum in early years education; a curriculum that foregrounds movement and the co-construction of knowledge. A pedagogy of play is not rigid. It will have multiple forms and types. But there are some constants particularly in relation to the element play. As Wood (2009) contends:

Good quality play is linked to positive learning outcomes in the cognitive, emotional, social and psychomotor domains, and in the six areas of learning (p. 28).

The six areas to which Wood refers are drawn from the United Kingdom's Early Years Foundation Stage (EYFS), which is made up of areas of Learning and Development. These are:

- Personal, Social and Emotional Development
- Communication, Language and Literacy
- Mathematics (Problem Solving, Reasoning and Numeracy)
- Knowledge and Understanding of the World
- Physical development
- Creative Development
- (Early Years Foundation Stage, 2007)

An ECE teacher planning a curriculum would need to take cognizance of all six areas, and the potential of these areas to fan both literacy and child development as a whole. Knowledge of the latter is essential in the design of appropriate learning activities, but on its own is not enough. As Walsh (2005, p. 40) warns, a deep knowledge and understanding of *"development is necessary but not sufficient."* We should also heed Penn's (2008) argument that neuroscience and physiology has provided us with little definitive knowledge about how learning is enhanced. Teachers should also be aware that play is unlikely to be universally effective, or desirable as a path to promoting learning in all contexts for all children (Rogers, 2011). In other words, play is not always positive. ECE teachers need to ask themselves who does play privilege and who does it marginalise[6]? (Mac Naughton, 2003). Literacy is grounded in social, cultural, historical and political practices (Gee, 1996 in Larson & Marsh, 2005). So too is play (Anning, Cullen & Fleer, 2008). A 21st century context requires teachers to take cognisance of these claims and practices when implementing an ECE curriculum.

All the above claims highlight the necessity of an ECE teacher's rich knowledge base. In short, physiology, brain research, learning theories, whole child development, understandings of

play and curriculum planning should all be considered when conceptualising a pedagogy of play that enables the optimisation of every child's literacy or literacies potential. We use the term literacies for, as Heath (in Whitehead, 2010) points out, children participate quite naturally in many 'literacy events' out of school as part of their social and cultural life. These events, for example a shared attempt by a family to make sense of the instructions for assembling a bench, form the basis of 'school literacy'. As Whitehead (2010, p. 154-155) asserts:

Literacy is not just a performance skill with the written system of the language but a cognitive tool that transforms our capacity for self-reflection, mental re- organization and evaluation. Writing is not just for conveying information and instructions, nor is it just for sharing pleasure and messages – writing is for thinking.

It is this understanding that should, we argue, inform a pedagogy of play. For this form of play is one of the precursors of writing, and should therefore present a rich language environment where playfulness with story and (where appropriate) rhyme is constantly apparent.

The above claims point to an increased focus on the interactive roles of adults (as they engage with children to co-construct knowledge) to promote, challenge and support play that is both socially and conceptually complex. It is not only children who should act as playful pedagogues. In socio-dramatic play, a teacher can identify 'teachable moments' as they spontaneously emerge and use these moments to co-construct new understandings with children, as well as enrich vocabulary. As Wood (2009, p. 29) points out, indicators of effective pedagogy in ECE entail; "*opportunities for co-construction between children and adults, including 'sustained shared thinking', joint involvement in child- and adult-initiated activities and informed interactions in children's self-initiated and free-play activities*".

The realisation of a pedagogy of play would present ECE teachers with a demanding new set of challenges. Included in these would be the need for a South African based reconceptualisation of the terms 'pedagogy' and 'play'; a reconceptualisation that demonstrates insight into how these two notions can operate in unison to promote literacy. The conceptualisation of the united pair (pedagogy and play) is essential because, as Wood (2009) points out, while there is substantial evidence of learning through play there is less evidence of teaching through play. Therefore, we suggest, that possible manifestations of a pedagogy of play in the South African context should be a priority research area. As an inaugural step, this paper considers a pedagogy of play in the context of literacy that might open up a space for intellectual debate on the details of a practical realisation of a play-based pedagogy.

A starting point for this debate could come from the definition of a pedagogy of play. The phrase "*… the ways in which early childhood professionals make provision for play and playful*

approaches to learning and teaching …" (Wood, 2009, p. 27) complements Whitehead's (2010) assertion that:

Literacy progress should be the dominant and joyful focus of the early years curriculum and it should be at the centre of the genuine partnership between early years settings, schools and parents (p. 138-139).

The words *'joyful focus'* and *'partnership'* form an integral part of the approach to early literacy set out in this paper. Children find joy in movement; both spontaneous movement, which is often part of free play, and more structured movement activities, such as movement and music rings, in which teacher guidance is more explicit. In teacher guided activities creative and problem solving elements could be introduced. For example, the teacher could ask children to collaboratively explore different ways of using their bodies to represent specific letters of the alphabet. In all these instances the type of programme adopted by the teacher is pivotal. It can either enhance or reduce literary-enriched learning opportunities.

Enhancing emergent literacy

Wood (2009) points out that research in the field of play and literacy has been conducted from multiple perspectives, and has generated strong evidence of links between developing literacies and play activities (Marsh, 2005; Roskos & Christie, 2000 in Wood, 2009). Wood (2009, p. 29-30) asserts *"there is substantial evidence that through play children demonstrate improved verbal communication, high levels of social and interaction skills, creative use of play materials, imaginative and divergent thinking skills and problem-solving capabilities"*. Furthermore, she contends, *"play and playful forms of activity potentially lead towards increasingly complex forms of knowledge, skills and understanding, particularly in the cognitive and social domains"* (p. 30). So how does this promote literacy?

While children are having fun, and this frequently happens during play and movement activities, they are at their most receptive to taking in sensations, and to responding to them. During these activities they are refining their fundamental motor skills, and, at the same time, establishing perceptual-motor behaviours, which we have argued are fundamental building blocks on the road to literacy.

But this is only one aspect of literacy acquisition. As young children set out on the road to literacy there are other clear signposts that point the way. There are letters, sounds, words, pictures, prediction and problem solving, and a wealth of other pointers. There are shared 'literacy' encounters, picture books, story time and language play. Literary-enriched play and 'mediatable moments'[7] occur spontaneously during the early childhood school day, often in the context of play. It is the utilisation of these moments plus, of course, knowing when to step in and when to stand back, that can promote literacy.

The literacy potential in ECE is multi-faceted. In free play, routines, and rings[8] the potential for developing literacy is there. Its development should become each teacher's personal, and professional responsibility.

The complexity of his/her task is captured in the words of Whitehead (2010) who states:

Experienced professional teachers of early literacy have to interpret the many complex findings of research and clarify the issues in discussions with other professionals and young children's families. Factors that need to be considered include, current knowledge about the brain and children's different developmental stages, learning styles, cultural, social and home literacy experiences (p. 138).

South Africa's language diversity, while a rich resource poses many challenges. The adoption of a multi-modal pedagogy[9] which would enable learning environments to become more participatory, agentive spaces (Newfield, 2011) would be one way of beginning to address these challenges. As Newfield (2011) comments, teachers could use multimodality in productive, expressive and creative ways that work against deficit models of children and draw on their everyday experiences and language resources. Multimodal pedagogy could enable children whose home language is not the language of learning and teaching (LoLt) to make meaning through their interpretation of other genres of representation employed by the teacher. The children themselves could employ these other genres such as using their body as a key instrument of expression. In short, in South Africa's multilingual classroom realities multimodal pedagogy could become one way of overcoming possible spoken language barriers.

In addition, the informal nature of ECE beckons creativity, and multi-modal pedagogy could provide a context for a range of communicative acts that enhance learning. We argue that such communicative acts could become an inherent part of a pedagogy of play where play is sustained through reciprocal and responsive relationships (Wood, 2009).

Storytelling, for example, could lend itself to a multimodal approach. The book Not so fast Songololo by Niki Daly could be successfully told through the medium of English to a group of multilingual children. Appropriate story aids, correctly sequenced, could help children identify specific characters and important aspects of the narration. Meaning could be further enhanced through the teacher's use of bodily movements, gestures and sounds. After the story has been presented, children could be given more opportunities to deepen their understandings of the text through a movement or dramatisation ring.

This story also presents many opportunities for vocabulary enrichment. It contains, for example, words such as old and young (as in people), push and pull, in front of and behind. The teacher's use of a bodily kinaesthetic approach to learning would aid meaning making in this context. The example we have just set out would then meet two sets of criteria. It is play based, purposeful, meaningful and reciprocal which are some of the criteria of a pedagogy

of play. It is also using the body and the senses to make meaning through a multimodal approach. As Kress (2000) notes, the role of the body and of the senses in semiosis (the process of meaning making through signs) guarantees the multimodality of our semiotic world.

By recommending this approach as part of a pedagogy of play we are not detracting from the enormity of the challenges emanating from South Africa's linguistic landscape. We are just suggesting one possible way for teachers to address multilingual issues in his/her ECE class. Multimodality then is one way of making the 'invisible' visible.

The notion of 'invisible', in this instance, 'invisible' pathways to literacy through a pedagogy of play, is the main focus of this paper and the focus to which we now return in the context of handwriting.

In our earlier example of the acquisition of handwriting and the essential underpinning skills, it became clear that teachers ought to offer a variety of activities to enable children to master the formal skill of handwriting when they enter Grade 1. Gross motor skills are developed through outdoor free play, for example, climbing on jungle gyms, digging in sandpits, painting on an easel to develop the muscles of the shoulder girdle. Fine motor skills are refined through play with construction toys, such as blocks or lego's, manipulative toys such as jigsaw puzzles, other small toys such as peg boards, cars and dolls house furniture, opportunities to thread beads and lace cards, as well as to mould using play dough or clay, and to draw and paint. Zipping, buttoning and using scissors, crayons and other art materials help develop finger dexterity. According to Charlesworth (2004), once a child has attained small muscle (fine motor) skills they can co-ordinate hand and eye. By observing a child drawing it is possible to ascertain whether the child is able to make the necessary basic strokes needed for writing.

As already mentioned, handwriting also involves perceptual skills. Children need to perceive similarities and differences, shapes, sizes and directions. These skills are developed through motor movements during free play; climbing on a jungle gym, riding a tricycle, playing a variety of educational games such as memory game, lotto or dominoes or through socio-dramatic play (which, according to Vygotsky, should be the lead activity for children between the ages of three to six years (Karpov, 2001). Through structured teacher-guided activities, such as movement and music rings, children are encouraged to further explore and develop these skills. Finally, in order to write children need to have orientation to printed language. Children, therefore, need opportunities to be creative; to make books and greeting cards during creative art and to be exposed to books and stories in both their mother tongue and the LoLT. This is another instance where a multimodal approach could enrich the communicational and educational landscape.

We also know that children do not develop the ability to write in isolation from the other language skills, namely; listening, speaking and reading (Heilman, Blair & Rupley, 1994).

Hence children need to be immersed in a language rich environment where they experience plenty of opportunities to both hear and talk. The richer the child's linguistic resources, the more readily the skills of reading and writing are acquired. As Anderson, Heibert, Scott and Wilkinson in Heilman et al. (1994, p. 12) claim:

Reading instruction builds especially on oral language. If this foundation is weak, progress in reading will be slow and uncertain. Children must have at least a basic vocabulary, a reasonable range of knowledge about the world around them and the ability to talk about their knowledge. These abilities form the basis for comprehending text.

In short, the acquisition of literacy is a complex, multifaceted process. Literacy skills are not acquired in isolated parts, which Heilman et al. (1994) suggest is the focus of many beginning reading and writing programmes. Literacy skills are best acquired when the child is immersed in a challenging and stimulating environment that provides rich and varied learning experiences, which optimise the child's learning potential. One way to address 'all aspects' is through a pedagogy of play.

Conclusion

In this paper we argued that the building blocks of literacy are best acquired through a quality play-based approach towards ECE, which is realised in a pedagogy of play. In bringing together two constructs ('pedagogy' and 'play') once seen as disparate we propose a literacy approach that fans, through movement and other activities, perceptual-motor behaviours and sensorimotor integration in a pedagogy of play. Perceptual-motor behaviours and sensorimotor integration are the 'invisible' pathways to literacy. The stimulation of these invisible pathways presents spontaneously during the preschool day. Literacy events to use Heath's term (in Whitehead, 2010) can be structured, like a story ring, or arise unheralded during socio-dramatic or other formsmof free play. It is the teacher and his/her insight into literacy and its many forms that can make the difference.

It is envisaged that by 2014 all our children in South Africa will be offered the opportunity of a Grade R year before the start of formal schooling. Are our teachers ready for this challenge? An ECE/Grade R teacher who understands the role of the invisible pathways and how these can be fanned in a pedagogy of play is ideally positioned to optimise incidental and other teaching and learning opportunities. In so doing s/he paves the road to literacy and enables children to develop the KSAVs that not only underpin successful literacy learning but academic learning in general.

Endnotes

1. Perceptual-motor development is the term, which refers to the development of specific skills and concepts acquired when children take in information from the environment via the senses, interpret this information in the brain and respond to it through movement.

2. Sensorimotor integration refers to the ability to integrate different perceptual-motor behaviour; it is the process of organising sensory input (sensations) so that the brain can produce a meaningful body response.
3. This input could be, for example, in relation to size, shape, speed, space and feelings about one's own body.

4. The vertical midline refers to an imaginary line dividing the body in half (vertically) a left and right side. The horizontal midline refers to an imaginary line dividing the body in half along a horizontal plane.

5. Perception is the brain's interpretation of physical sensations. Sensation is what happens when physical stimuli are translated into neural impulses that can then be transmitted to the brain and interpreted (Lefrancois, 1992 in Charlesworth, 2004, p. 39).

6. Certain forms of play, for instance a home corner in socio-dramatic play, could exclude boys because of gender bias arising out of cultural norms.

7. Mediated or teachable moments refer to opportunities for teacher intervention that occur spontaneously during free play and ring time. A teacher, for example, can observe play in the fantasy corner and purposely intervene to enrich vocabulary use.

8. Free play, routines and rings comprise the three main elements of the preschool programme. Routines are those everyday activities that give structure to the day such as toilet and snack times. They provide excellent opportunities for incidental learning. Free play, also called child-initiated learning, refers to those times when children take responsibility for their own learning through exploration and discovery supported by free choice activities. In a pedagogy of play, the teacher would, where appropriate, mediate learning and engage children in the co-construction of knowledge. Rings refer to teacher-guided activities and are those times when the teacher structures the learning opportunities. Rings include morning discussions, story, movement, music, science and perception. These rings all offer opportunities for literacy acquisition.

9. Multimodality is a theory of meaning and communication. Multimodal pedagogies exempli- fied here are a move away from the traditional monomodal approaches to teaching and learning with their focus on language as the primary mode of learning. Multimodal pedagogies consider the inclusion of more concrete, material, sensory and bodily practices. They are founded on the idea that meanings are made, disseminated and interpreted through many representational resources or modes, of which language is but one amongstmany; image, sound, gesture, space, music, movement, facial gestures and body postures (Newfield, 2011).

References

Anning, A., Cullen, J. & Fleer, M. (2009). *Early childhood education: Society and culture.* London: Sage.

Arnheim, D.D. & Pestolesi, R.A. (1978). *Elementary physical education: A developmental approach.* St Louis: Mosby.

Ayers, A.J. (2005). *Sensory integration and the child*. Los Angeles: Western Psychological Services.

Bransford, J.D., Brown, A.L. & Cocking, R.R. (Eds.). (1999). *How people learn.* Washing- ton: National Academy of Sciences.

Charlesworth, R. (2004). *Understanding child development.* (6th ed.). New York: Delmar. Crain, W. (2005). *Theories of development. Concepts and applications*. (5th ed.). New York: Pearson Education International.

Dahlberg, G., Moss, P. & Pence, A. (1999). *Beyond quality in early childhood education and care: Postmodern perspectives.* London: Falmer Press.

Gabbard, C.P. (2008). *Lifelong motor development*. New York: Pearson Publications. Gallahue, D.L. Werner, P. & Luedke, G.C. (1975). *Approaches to moving and learning.* New York: John Wiley.

Gallahue, D.L. (1982). *Understanding motor development in children.* New York: John Wiley.

Gallahue, D.L. & Ozmun, J. (1998). *Understanding motor development.* Boston: McGraw-Hill.

Gallahue, D.L. & Donnelly, P.L. (2003). *Developmental physical education for all children.* Champaign, Illinois: Human Kinetics.

Gerhardt, L.A. (1973). *Moving and knowing.* Englewood Cliffs: Prentice Hall.

Gordon, A.M. & Browne, K.W. (2008). *Beginnings and beyond: Foundations in early childhood education*. (8th ed.). New York: Thomson Delmar.

Heilman, A.W., Blair, T.R. & Rupley, W.H. (1994). *Principles and practices of teaching*. New York: Merrill.

Hill, S. (2006). *Developing early literacy. Assessment and teaching.* Victoria: Eleanor Curtain Publishing.

Isbell, C. & Isbell, R. (2007). *Sensory integration. A guide for preschool teachers*. Beltsville MD: Gryphon House.

Karpov, Y. (2005). *The neo Vygotskian approach to child development.* New York: Cambridge University Press.

Kranowitz, C.S. (1998). *The out-of-sync child.* New York: The Berkley Group.

Lundsteen, S.W. & Tarrow, N.B. (1981). *Guiding young children's learning.* New York: McGraw Hill.

Larson, J. & Marsh, J. (2005). *Making literacy real: Theories and practices for teaching and learning*. London: Sage.

Mac Naughton, G. (2003). *Shaping early childhood.* Berkshire: Open University Press. Moyles, J. (1989). *Just playing? Therole and status of play in early childhood education.* Maidenhead: Open University Press.

Moyles, J. (1994). *The excellence of play*. Buckinghamshire: Open University Press.

Newfield, D. (2011). *Multimodality and children's participation in classrooms: Instances of research. Perspectives in Education*, 29(1), 27-35.

Pellegrini, A.D. (1991). *Applied child study. A developmental approach.* (2nd ed.). New Jersey: Lawrence Erlbaum Associates.

Penn, H. (2008). *Understanding early childhood: Issues and controversies.* McGraw Hill: Open University Press.

Pramling-Samuelsson, I. (2005). *Can play and learning be integrated in a goal-orientated early childhood education?* Early Childhood Practice: The Journal for Multi-Professional Partnerships, 7(1), 5-22.

Pramling Samuelsson, I. & Carlsson, M.A. (2008). *The playing learning child.* Scandinavian Journal of Educational research, 52(6), 623-641.

Riley, J. (2003). *Learning in the early years*. London: Paul Chapman Publishing.

Robinson, L.E. & Goodway, J.D. (2009). *Instructional climates in preschool children who are at-risk.* Part I: Object-control skill development. Research Quarterly for Exercise and Sport, 80(3), 533-542.

Rogers, S. (2011). *Play and pedagogy*. In S. Rogers (Ed.). *Rethinking play and pedagogy in early childhood education: Concepts, contexts and cultures.* London: Routledge.

Spodek, B., Saracho, O.N. & Davis, M.D. (1991). *Foundations of early childhood education.* New Jersey: Prentice Hall.

SAIDE (South African Institute for Distance Education). (2010). *Grade R Research Project.* Braamfontein: SAIDE.

Vygotsky, L. (1978). *Mind and society. The development of higher mental processes.* Cambridge MS. Harvard University Press.

Whitehead, M. (2010). *Language and literacy in the early years 0-7.* London: Sage.

Wits School of Education. (2009). *Implementation of the National Curriculum Statement in the Foundation Phase.* Johannesburg: WSoE.

Wood, E. (2009). *Developing a pedagogy of play*. In A. Anning, J. Cullen and M. Fleer (eds.). *Early childhood education: Society and culture*, p. 27-38. London: Sage.

Notes:

RHODES UNIVERSITY
Where leaders learn

Address:
5 Prince Alfred Street,
Rhodes University
Makhanda,
6140

046 603 7667
046 603 7229

Email:
a.kinsler@ru.ac.za

Website:
http://www.ru.ac.za/communityengagement

or follow us on:
Facebook: RUCE: Rhodes University Community Engagement
Twitter: RUEngagement
Instagram: RUEngagement