From: [redacted]
To: NSW Productivity Feedback
Subject: The Green Paper and Teaching
Date: Tuesday, 1 September 2020 4:39:52 PM
Attachments: about health sub.pdf
PRIMARY TEACHING UNDER THE MICROSCOPE.pdf
Supplementary Statement.pdf

Attention: Peter Achterstraat AM
NSW Commissioner for Productivity

Dear Commissioner,

After studying that section of your Green Paper devoted to 'Best-practice teaching to lift school results', I am moved to offer feedback from the perspective of 'an awarded primary school teacher/principal'.

[redacted]

Every primary school should be capable of achieving similar outcomes, and I believe would do so, if their teachers were permitted to be properly informed. But unfortunately, my contribution has since been consistently blocked by policy makers and leading academics.

Apropos your Green Paper, there can be no doubt, from what I have read therein, that the decline and stagnation of standards in our schools is viewed solely as a crisis of teaching, with recommendations being put forward for improving the standards of teaching over many decades.

The urgency and the reality is that the desperate need for a solution is immediate. That should be obvious because the hundreds of thousands of underachieving children in our schools cannot wait for your recommendations to take effect.

The unintended consequence of your focus on teaching is most unfortunate, given that the current teacher workforce is now labelled as sub-standard, and left in no doubt that it must be replaced with more intelligent, more academically qualified, and more rigorously trained personnel.

I can assure you to the contrary, that the current teacher workforce is quite capable of greatly improving learning outcomes, beginning immediately, and would do so as soon as everyone realised that this is not a crisis of teaching, rather, it is a crisis of learning.

The inspiration noted above came whilst I was teaching a very large class of year-four underprivileged, underachieving children. It was they who demonstrated that my teaching, and that of my predecessors in earlier year levels, was not responsible for their plight - they had been underachieving because their early childhood experiences had not properly prepared them for being taught at school, a fact which nobody had previously noted.

That unanticipated demonstration, brought about by my change in thinking, caused me to realise that the issue of children's developmental readiness for learning is the primary, therefore the major determinant of teaching and learning success. In fact, it is actually very harmful to attempt to teach children who are lagging in readiness.The transformation of those children from underachievers to successful learners was dramatic.

This means that the assumption on which you base your entire line of reasoning is doubtful - even false. The quality of the teachers and their teaching is not the single most important factor

in improving student learning - that role belongs to readiness. Even the best teaching is a secondary determinant.

Lagging readiness for learning is correctable by way of enlightened primary curriculum practices.

For a more detailed understanding, I now draw your attention to the three attached files, which constitute a formal submission I lodged with the Federal Minister for Health, Hon. Greg Hunt MP in November 2019 and copied to the Federal Minister for Education Hon. Dan Tehan MP.

The file named ‘About Health sub' contains my vision for catering for the the purpose and existence of the primary school, and its pivotal role in society. This documents should be seen as illuminating the educational pathway ahead. It is the way of thinking that led to my success.

The second file is titled: Primary Teaching under the Microscope. This is a re-presentation of a submission sent to all federal, state and territory Ministers for Education in 2016. All ministers responded, most personally. It contains knowledge of learning that I have garnered since 1981. Most importantly, it explains the fundamental neurological nature of learning, and why it is so important for teachers to understand it so they can adjust their practices.

The third file is a supplementary statement to the 2016 submission. It explains how literacy is best achieved by way of readiness-based teaching.

I trust you and your colleagues will find this work enlightening. There is more to come should you wish.

Yours sincerely,

A Personal Submission to Hon Greg Hunt MP,
Minister for Health in the Australian Parliament

From:

[redacted]

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Theme: Facilitating and Protecting the Mental Health of Primary School Children - and their Teachers

- The pivotal role of the primary school in our society is not limited to engendering the academic achievements of young children - far from it.

- As a precursor to its obvious role in promoting academic achievement, the primary school first has a vital contribution to make to children's overall development; i.e. their physical, emotional, social, intellectual and aesthetic development - and in so doing, ensure that children are perpetually readied for learning. Without adequate learning readiness, underachievement is inevitable.

- To be truly successful, the primary school program must also be implemented in a way that will ensure the mental health of young children in preparation for their teenage years and early adulthood.

- Given the renewed focus on children's mental health, and given the alarming rates of suicide reported among teenagers, young adults and teachers, it is quite apparent to this former teacher that the primary school is not fulfilling its pivotal role in society.

- As this is an extremely serious public health issue, I believe it demands investigation from a public health perspective.

- This submission offers a practical vision for ensuring fulfilment of the primary school's role in the well being of all participants.

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"There is so much more to the acquisition of literacy than can be achieved by having teachers "teach" reading as a stand alone subject."

FOREWORD:

There are numerous threats to the physical and mental wellbeing of teachers and children in our nation's schools, which, when placed together in one basket, can be recognised as a public health issue of great significance. It is a crisis that demands an immediate and permanent resolution.

While the epidemic-proportioned issues facing educators and health officials may appear to be distinct one from another, this writer proposes that they all arise from the one source, namely our flawed system of education with its unsatisfactory educational, psychological and social outcomes.

If this crisis is ever to be resolved, determined public health intervention is considered essential. That's because education's academic or administrative leadership is yet to discover a way to preempt and prevent crisis situations; nor has it shown any real concern for teachers' welfare.

As with any kind of epidemic, prevention is better than cure, so it is important to identify and treat the "disease" itself, not just its symptoms.

Although currently regarded as separate issues, teacher burn-out, physical and mental health disturbances among teachers and children, and all forms of bullying are symptoms of one identifiable malaise - underachievement.

And, as with any illness, treatment of the symptoms alone is a waste of time and resources, whilst on the other hand, successful treatment of the underlying disease can be expected to alleviate and even eliminate the symptoms.

Based on long-term teaching experience and publicly recognised success, this former teacher wishes to proclaim that successful learning, when happily, enthusiastically and busily achieved, is the best preventive medicine for education's malicious crises.

In order to help find the way forward, a deeper understanding of the purpose of the primary school is proffered by this primary school teacher and principal.

EXECUTIVE SUMMARY:

- Because we have a deeply flawed system of Education in Australia, (which nobody can deny) it is beset by a perpetual, multi-dimensional malaise - it is a crisis of learning.
- This crisis is constantly reflected in disappointing curriculum outcomes, which are accompanied by behavioural and mental health disturbances among young children, teenagers and young adults.
- It is a crisis for which education's political, academic and administrative leadership must take some responsibility, for, despite decades of extraordinarily heavy government expenditure, major systemic reform initiatives and multitudinous academic research projects, a practical remedy for failure and underachievement is yet to be produced.
- Unfairly held responsible for this catastrophe, principals and teachers are also deeply affected, with compensation claims for work-related illnesses reaching extraordinarily high levels, thanks in part it seems, to an endless supply of draconian measures imposed on schools and teachers by their academic and administrative leaders.
- It is reported that alarming numbers of qualified personnel quit the service within five years of graduating as teachers.
- In each of the ten years since its inception, NAPLAN testing has consistently revealed that 20 - 25% of students struggle to achieve and maintain minimum acceptable standards of numeracy and literacy. But that's not all, by its very nature, NAPLAN causes a great deal of psychological and educational harm because constant compulsory testing convinces many children that they are inferior in so many ways to their more successful peers.
- Bullying and student suspensions have spiked alarmingly as a result.
- All too many graduating high school students are reportedly lacking the spelling, writing and calculating skills required by employers.
- Candidates for teacher training are now required to be tested for literacy and numeracy despite having completed thirteen years of schooling.
- PISA testing reveals that academic standards in Australia are stagnating.
- The OECD estimates that 20% of Australian adults are barely literate.
- The Australian Early Development Census (AEDC) indicates that approximately 20% (sixty thousand plus) of the yearly intake of beginners is developmentally vulnerable - i.e. they are predicted to fail or at least underachieve throughout their schooling.
- NB The repeated estimate of 20% of the school and adult populations has great significance when considering the solution offered in this submission.

One teacher's brush with work-related illness - and its inspirational aftermath.

This brief account is offered as an object lesson for those teachers who find themselves suffering stress-induced illness, or are planning to abandon their vocations in despair.

My message to those teachers is: Take heart! If you can follow and accept my line of reasoning as it is presented in this submission, you too might become inspired, and teaching for you, might become as joyful and as rewarding as you would want it to be.

Twenty years after entering Melbourne Teachers' College, and soon after being promoted to the position of Senior Teacher in a notoriously disadvantaged school, it was clearly evident that I was desperately ill, but had not yet obtained a diagnosis. Ultimately however, I was found to be suffering from severe thyrotoxicosis, which, as I was given to understand, was the result of constantly overtaxing my body's energy production.

The thyroid produces thyroxin, a hormone, which, when combined with oxygen taken in via the lungs, acts as a catalyst for the release of energy from food. Over the long term, excessive demands for energy in my teaching had stimulated my thyroid to overproduce thyroxin - to the point where it had become a severe toxic threat to my life.

My employer, the Victorian Education Department accepted liability for my dire situation and I received appropriate compensation.

THE INSPIRATIONAL AFTERMATH:

Five months sick leave and a radical thyroidectomy had not only restored my normal metabolism, it had given me a wonderful opportunity to reassess my teaching. Obviously, a new approach was needed if I wished to maintain my rejuvenated self.

Large classes meant that "truckloads of energy" churned in every classroom, particularly the negative sort of energy that is always poised to burst out as disruptive behaviour in disadvantaged settings. My initial thought was that it might help if I "burnt off" some of that negative energy and utilised the children's energy instead of relying upon my own.

For that reason I introduced simple physical exercises in the classroom and used them at the first and every sign of disruption.That simple strategy had a wonderfully positive effect on behaviour, and amazingly, ensured the children's cooperation and participation in the curriculum. The learning success of the children was most gratifying.

But there were greater benefits to come, for the learning success of those children gave me much needed inspiration as I set out to find and devise a new line of reasoning for primary education. Neuroscience has since provided explicit explanations of the astonishing link between physical activity and learning.That rest of the story is to be found in the detail of this submission.

A. THE PURPOSE AND PIVOTAL ROLE OF THE PRIMARY SCHOOL.

The primary school is a formal institution, required by, and arranged on behalf of the community to strategically aid and foster the total development of children as they pass through their early and later stages of childhood.

In that context, the primary school's pivotal role is to ensure that as far as possible, the developmental processes are not only successfully achieved, but, that they are enhanced by the acquisition of a wide range of skills, knowledge and values that are deemed necessary for living in our current and future society.

Our task, in cooperation with parents, is to assist children:

1. to feel good about themselves, to develop self respect, confidence and esteem.
2. to "represent the world to themselves" in the most fruitful and enjoyable ways possible and
3. to help children discover themselves, their society and their world, not simply teach them about it, while they gain benefits, knowledge and understanding as they live their lives with us.

Knowing how to make this assistance available through enlightened curriculum practices is the key to ensuring truly successful learning for all. It is clear that the teaching and testing of subjects and subject matter alone (pedagogy) can never achieve these objectives. This is primarily because academic learning for vast numbers of children is inhibited by a common set of yet-to-be-identified, but nonetheless, correctable, development-related barriers to learning. Teachers might teach well, but not all children will learn successfully.

Continue to ignore or deny the existence of those barriers, and far too many children will continue to underachieve and/or develop emotional and behavioural problems**.** Remove those barriers and all capable children will be given the best opportunity learn happily and successfully at school.

The Primary School Curriculum constitutes a seven year part-time contribution to the growth and development of the human person, during which time, it is hoped/ expected that this person will achieve physical, emotional, social, intellectual, and aesthetic growth and development commensurate with chronological age and individual potential, while at the same time developing quality skills of oracy, literacy and numeracy

The development of the human person is a complex on-going process - a continuum, the greater part of which occurs before and outside the influence of the school.The amount and quality of the pre-school and out-of-school development will largely determine the success of the total curriculum.

Nevertheless, the primary school is well placed to positively influence the total growth and development of all children; even compensating immensely for developmental delays and deficiencies that present barriers to learning in large numbers of children, and which consequently inhibit their learning as they begin and continue their schooling.

If the primary school does not fulfil its pivotal role, i.e. its purpose in regard to children's total development and learning, nothing will change, there will be no improvement in teaching outcomes.

B. BROAD CONCEPTS OF LEARNING:

The acquisition of skills and knowledge is universally viewed as learning.

Teaching is deemed to involve the transfer of knowledge from, and via teachers to students, and it is in that philosophical arena that our education system begins to flounder, this is primarily because there is a universally-held false assumption that children will learn successfully if they are well taught. This submission is intended to expose that falsehood.

Allowing that learning may be defined in many ways, and can be many things, it should suffice to say that true learning produces permanent changes in the physiological (neurological) , emotional (psychological), social, intellectual and/or aesthetic nature of the individual.

Some learning occurs in the short-term, while other learning is long-term. For instance, by experiencing the bitter taste of a lemon for the first time, a child will learn something instantly and permanently; whereas learning to play the piano is a long-term learning process requiring a great deal of repetitive practice.

Some learning requires skill development, some learning results in the assimilation of knowledge - very often, there is a complex inter-dependence of skill and knowledge.

Learning may manifest itself as attitudinal and behavioural adjustments, which, depending upon circumstances may be positive or negative.

Positive attitudes reflect successful learning brought about by joyful, enthusiastic participation in the learning environment.

Negative learning is brought about by unhappy or resentful non-participation in the curriculum, resulting in learning failure and underachievement, both of which manifest themselves in problem behaviours such as disengagement, disruptiveness and bullying.

Successful learning should involve growing awareness of self, society and the world.

An important aspect of early learning is learning how to learn. Advanced learning requires the individual to be able to utilise earlier developments in such complex intellectualising processes as comparing, classifying, analysing, synthesising, hypothesising and memorising.

Successful learning for the child at school will be utterly dependent upon the foundation laid down in early childhood, so it must be emphasised here that *early childhood includes the primary years of schooling.*

Academic learning cannot occur successfully while early developments and early learning are poorly established and remain unconfirmed. It is vitally important therefore, that the primary school curriculum should be designed and implemented in such as way as to enable teachers to positively facilitate, foster, enhance, enrich, and even accelerate every child's early childhood development not just their academic or intellectual achievements.

Learning for the individual will be limited in terms of individual capacity to learn - i.e. in terms of individual potential. In this sense, even though children might surprise us by

achieving above and beyond our estimation of their potential, no child can overachieve. If children do surprise us, it means they just haven't previously revealed their full potential to anyone.

However, as most of us probably fail to achieve and learn in keeping with our full potential, underachievement is certainly possible for any child - even the brightest. And so it is that underachievement is the root cause of so many emotional and behavioural problems - especially disengagement and bullying in all its forms.

C. CHILDREN'S DEVELOPMENTAL READINESS FOR LEARNING

In order to be able to learn and achieve in a manner that is in keeping with potential, the individual must bring certain attributes to the learning environment. These attributes constitute learning readiness; and all are products of early childhood development and early learning.

Some tangible and intangible attributes of learning readiness are:

- a worthwhile degree of gross and fine motor coordination and balance, which should be considered as being commensurate with chronological age and individual physical capacity
- awareness of space and an awareness that others also have a need and a right for space
- social awareness
- recognisable perceptual abilities, particularly visual and listening skills
- sufficient language skills and vocabulary, including good speech habits to be able to intellectualise learning experiences
- genuine self esteem
- self confidence, self reliance
- confidence in parents, peers and teachers
- emotional stability
- positive attitudes

As it cannot be assumed that all children possess these necessary readiness attributes, and given that current lifestyles suggest that many will not possess them (assuring the vulnerability of many), curriculum planning and implementation must make provision to help children gain them, otherwise many will immediately and continuously be at risk, i.e. they will not be able to learn and achieve in keeping with their potential, and certainly not in keeping with adult expectations.

Underachievement and learning failure are the inevitable outcomes of a curriculum that ignores the challenges presented by children who are lagging in some aspects of their early childhood development.

D. THE PRIMARY SCHOOL CURRICULUM:

The curriculum refers to all the arrangements made by the school to promote children's overall development and learning. Curriculum is much more than prescribed subject matter.

The curriculum provides the means of fulfilling the purpose of the school, which in summary, is:

- to aid the physical, emotional, social, intellectual and aesthetic (cultural) development of all children
- to ensure that overall development is enhanced by the acquisition of a wide range of skills, knowledge and values, i.e. academic and other learning
- to ensure, in particular, oracy, literacy and numeracy
- In view of the purpose and intentions noted above, the following intentions are proposed to be the basis of curriculum planning and implementation.

CURRICULUM INTENTIONS:

- To positively participate in, and influence the total growth and development of all children, so that each may be given the best opportunity to learn and achieve in keeping with potential.

- To ensure in the process, that each child successfully develops the skills associated with gross and fine motor coordination, sensory perception, sensory integration, speech and spoken language, **and** the ability to intellectualise through language. For this to occur, the child must ultimately, be able to accurately perceive good spoken language, and faithfully reproduce the language they have perceived.

- To cultivate a safe, secure and happy learning environment in which all members of the school community can work, learn and live creatively, happily and contentedly.

- To provide a seven-year curriculum program utilizing prescribed courses of study and syllabus statements, founded on the concept of a whole school approach to learning, a whole school approach to language and literacy, a whole school approach to number and mathematics.

The realisation of these intentions will be facilitated when it is recognised that:

- the development and enhancement of basic physical, sensory, speech and language skills within the seven-year continuum, requires day by day, year by year attention.

- Children are more likely to learn and achieve in keeping with their individual potential if they are active and happy participants in the curriculum rather than passive or reluctant recipients of instruction, and if the curriculum provides them with every opportunity for self expression.

- Children cannot learn effectively if they are suffering from emotional or physical trauma.

SCHOOL POLICY is a presentation of the intentions, aims, objectives and working concepts that have been developed, and continue to be developed, for the effective and successful operation of the school.

SCHOOL POLICY PART 1:

SPECIFIC AIMS FOR A WHOLE-SCHOOL APPROACH TO LEARNING:

- To bring about the active participation of all children in the curriculum by means of a structured daily physical development program - including repetitive physical exercises, creative movement and movement to music.
- To assist each and every child to continuously develop gross and fine motor coordination and balance through this same physical development program.
- To assist each child to develop awareness of space, and how to utilise it, through this same physical development program.
- To assist each child to develop social awareness as a result of shared, common developmental experiences - as in movement, sensory and language development.
- To ensure that all children experience initial success within the curriculum and achieve self esteem through the developmental program, thus helping to bring about emotional stability.
- To assist each child to achieve sensory integration by extending the physical developmental program to incorporate exercises designed to stimulate sensory perception - specifically auditory, visual and tactile perceptions.
- To establish firm foundations for successful language development by instituting a daily speech training program, as it is becoming clear that ultimate success in reading depends greatly upon accurate use of speech mechanisms and ever-increasing mastery of spoken language. (Readily extended into the area of singing and music.) Speech training is physical education of the mechanisms of speech, which, at the same time stimulates auditory perception.
- To use the developmental programs as a means of opening all channels of communication - i.e. verbal and non-verbal, and as a means of generating language development through shared experience, talking, writing and dramatising.
- To proceed confidently with facilitating academic learning when we are sure that children have sufficiently developed basic skills and concrete concepts, which will enable them to cope with abstractions, as it has been found that underachievement is likely to be the end product of physical, sensory and language confusion.
- To proceed with the whole school curriculum as per syllabus statements, designed to result in acquisition and development of the skills of oracy, literacy and numeracy , having utilised all available human, material and environmental resources.

- To carry out ongoing evaluation to ensure that our intentions, aims and objectives are being achieved.

SCHOOL POLICY Part 2

Steps to be taken in the implementation and achievement of school policy aims and objectives

I. Determination of needs - individual - group - community
II. Preparation of flexible curriculum statements capable of being translated into action
III. In parallel with above - activation of curriculum and instruction
IV. Evaluation : a. observation programs - b. teacher constructed tests - standardised tests
V. Adjustments and refinements to 2 & 3 above in light of evaluation.
VI. Adjustments and refinements made to School Policy in light of evaluation.

Coordinating community effort:

Curriculum programs developed according to the intention of School Policy are funded by School Council by way of the Program Budgeting process.

SCHOOL POLICY PART 3

Ongoing evaluation should help to determine in-service programs and provide directions for Curriculum Days

Whole School Evaluation:

School Policy provides a lead for the evaluation of the school's impact on children's development and learning. CAREFULLY NOTE EXCEPTIONS - and if not, why not?

Are children actively and happily involved in the curriculum?
Can children be seen to be developing quality skills of movement and balance?
Are children developing awareness of space and how to use it?
Are children displaying signs of accurate perceptions? These signs can be readily observed in their art work - especially their drawings.
Are children developing quality spoken language skills?
Are children developing self confidence and self esteem?
Are children developing good handwriting skills? (Fine motor coordination is essential)
Are children developing good spelling skills?
Are children developing independent reading skills?
Are children developing useful maths skills?
Are children undertaking independent learning?
Are children showing initiative in their learning?
Are children developing good study skills and habits?
Are children developing knowledge of and interest in music?
Are children being offered and taking advantage of drama activities?
Do children have sufficient outside experiences i.e. excursions?
Does children's behaviour reflect their successful development, their true self esteem, their full participation?
Are children beginning to reveal their true potential?

Subjective Individual Assessment

Allowing a direct relationship between a child's successful development and learning success, a parallel subjective analysis may be revealing when assisting underachieving children.

Physical skills (Rating Very Good, Good, Weak)

Gross Motor……..

Fine Motor ……

Spatial Awareness …….

Social Awareness ……..

Sensory Processing:

Auditory : acuity ….. figure ground perception (e.g. confused by extraneous sounds) ….

auditory sequencing …….. close ……..

auditory memory …. (short term)

Visual: acuity ….. figure ground perception (e.g. confused by extraneous visual stimuli)…

visual sequencing … visual close…. visual memory (short term) ……

Emotional state : Include assessment of self esteem, self confidence, self understanding

Participates happily? Contented? Secure? Insecure?Anxious? Distressed?

Social development: Include assessment of health knowledge.

Self Expression in play in drama, in all art form, in music

LANGUAGE DEVELOPMENT:

Speech and Spoken Language……

Handwriting …….

Written language/expression …….

Progress in spelling……..

READING:

Reads easily/fluently……..

Is developing recognisable reading strategies…….

Has good word attack skills …….

Makes predictions……

Appears to understand what is being read…….

Enjoys reading ……. Reads a great deal……

JUSTIFY THE ABOVE WITH TEACHER CONSTRUCTED AND STANDARDIZED TESTS

PRIMARY TEACHING UNDER THE MICROSCOPE

By: [redacted]

[redacted]

[redacted]

Presenting An Award-winning Teacher's Perspective on Education's Literacy and Numeracy Dilemma.

"The plasticity of the human brain, and the dynamic nature of children's sensory motor processing are Nature's most precious, but unknown and unappreciated gifts to teachers."

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[1] In conferring the 1981 Teacher of the Year Award, the Victorian State Government was publicly acclaiming a singularly effective approach to the primary school curriculum, declaring it to be "an outstanding contribution to education".

The Government's express purpose was to apprise the wider community of a rare, (and yet to be replicated) example of a ***highly successful, whole-school program in literacy and numeracy.***

The 1982 round of state elections brought in a new State Government with a pre-planned reform package; so an opportunity for a teacher-led renaissance was lost.

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FOREWORD:

Conceived as an integral element of a much vaunted educational reform package, and expected to bring about data-driven improvements in teaching and learning, ACARA'S annual NAPLAN Reports instead reveal that from year to year, with never a sign of improvement, perhaps as many as one quarter of all primary school students struggle to achieve and maintain, minimum acceptable standards of literacy and numeracy.

A Minimum Acceptable Standard means a weak and impermanent state of literacy and numeracy. This is an awfully precarious position for any child, but one in which so many intellectually capable[2] children find themselves.

The 2015 NAPLAN Report clearly indicates that in common with previous generations, many tens of thousands of capable students are illiterate, or barely literate at best, with little chance of improvement by the time they leave their primary schools. The ramifications for current and future generations of students, and for society, are very serious indeed.

From another angle, it appears that a great many students assessed as barely literate in year 3, have slipped back by year 5, and are then assessed as functionally illiterate by year 7. This surely adds an extra dimension to the dilemma. That which was deemed to be acceptable learning in year 3, can now be recognised as spurious, impermanent learning.

This paper is submitted in the sincere hope that the specific concepts of learning it contains, will enable the current teacher workforce to remedy the abysmal failure of our education system, once and for all time.

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[2]Intellectually capable students, representing the vast majority of Australia's school population, are deemed to be those who are not handicapped by any clinically diagnosable physical, mental or intellectual disability.

EXECUTIVE SUMMARY:

If this unacceptable, yet avoidable situation is to be resolved quickly and permanently, it is incumbent upon education's political, administrative and academic leadership:

- To acknowledge that our education system is mired in a crisis of learning, for which it must accept full responsibility - as must the captain and navigator of a foundering ship, whose crew cannot be blamed for errors in navigation.

- To understand and accept that teachers and teaching methods per se, are not to blame for widespread learning failure and underachievement.

- To recognise the futility, and the ill-directed focus of research, reform and policy development, which individually and collectively, have failed to advance the cause of literacy and numeracy education in decades.

- To acknowledge that no academic, no cohort of educators (such as ACARA), no policy maker, no administrator, and certainly no teacher-training institute, is philosophically equipped to supply teachers with the **specific concepts of learning** that they must possess, if they are to ensure early and permanent literacy and numeracy for all intellectually capable children.

- To accept that there are more dimensions to literacy and numeracy acquisition than direct teaching and remedial teaching can ever hope to encompass.

- To accept that there is an urgent need for a revision of educational philosophy, along with an enlightened approach to the primary school curriculum.

- To accept that the resolution of the literacy and numeracy dilemma is beyond the capacity and remit of secondary schools; where it continues to erode the quality of secondary and tertiary education.

CHALLENGING THE OVERARCHING PHILOSOPHY OF EDUCATION

* *Given the fundamental neurological nature of learning, there exists an urgent need for educators to embrace the relevant findings of Neuroscience, and to study the work of sensory motor theorists and practitioners[3].*

[redacted]

* *"Education (Teaching) does not equal learning!"*

A cryptic, science-informed declaration by Professor Perry Bartlett, FFA
Neuroscientist, Queensland Brain Institute
University of Queensland

* *"All knowledge is acquired, stored and retrieved in the sensory motor mechanisms of the brain." and "All knowledge is grounded in sensory motor representations".*

Lawrence W. Barsalou
Cognitive Psychologist
Emory University

"Successful academic learning, like any other learning, produces permanent physical and chemical changes in the brain - whereas spurious learning is temporary - it fades very quickly".

"Much of what passes for learning success in the early years is actually spurious learning - it fades because it is not built on the solid foundation of readiness".

"What we have at the moment is an education system wherein official policy demands that teachers impose "literacy teaching" on all children in the early years, without consideration being given to the likelihood that there are many, many children whose brains have not developed sufficient neurological connections to allow them to undertake academic[4] learning successfully."

"We have an education system wherein policy makers blithely expect at least 25 - 30% of the student population to experience initial failure through premature literacy teaching, and acknowledge that expectation by setting a one-on-one remedial teaching program in place, and calling it Reading Recovery - i.e. recovery from initial failure. This is a strategy that cannot possibly cope with the enormity of the problem the system itself has created, and continues to create".

"No child should ever be exposed to failure. Yet to add to their misery, repeated testing for benchmarks cruelly reinforces initial failure for tens of thousands of children."

[redacted]

Excerpts from Submission No.9 to
the 2005 National Inquiry into the teaching of literacy

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[3] e.g. Newell Kephart, Marianne Frostig, Jean Ayres, Glen Doman - See also S'cool Moves Inc. for ideas; a costly commercial program that should not be needed.

[4] Specifically - literacy and numeracy

PART 1: THE QUESTIONABLE RATIONALE, AND THE RESULTANT FUTILITY OF POLITICALLY AND ACADEMICALLY DRIVEN REFORM

Since the mid nineteen seventies, education's policy makers, acting in tandem with leading academics, have made bold, but thoroughly unsuccessful attempts to improve learning outcomes in schools. They have done this by focusing almost exclusively on literacy and numeracy teaching, and in the process unnecessarily draining the nation's finances.

Their research and reform initiatives have all been triggered by widespread discontent and endless media complaints about our education system. These complaints are exacerbated by the justifiable universal view that unacceptably low standards of literacy and numeracy feature prominently and perpetually in our nation's schools, and among school leavers.

Most likely owing their rationale to a nebulous, overarching **Philosophy of Education**, the research and reform packages in question are driven by unchallenged beliefs, assumptions and expectations, such as the following:

1. It is universally believed that teaching is a process of transferring knowledge and skills *cognitively*. Consequently, it is assumed that from their side of the classroom, children obtain knowledge *cognitively,* even *learn to read cognitively* **-** *i.e. by being taught*. On that basis, it appears logical to assume that cognition is the basis of academic learning, and that the better the teaching, the better will be the learning outcomes.

2. In the view of leading educators and Ministerial advisers, teacher training, teaching methods and curricula should be structured according to the dominant educational philosophy, one which is loosely formulated according to the Theory of Cognition.

3. It is expected that children will learn cognitively, and thus become literate and numerate, as long as they are taught properly - no matter how difficult this may be for slow learners and their teachers.

4. Ipso facto, when children fail to become literate and numerate, it is assumed that the failure is due to the 'fact' that their teachers are poorly trained or incompetent, or both.

5. Hence the strident demands for highly qualified, highly intelligent and rigorously trained teachers to be employed in schools in future.

It is my intention in the following pages to challenge the overarching philosophy, with its beliefs, assumptions, expectations and demands; and in the process, identify the whole package as the spurious product of widely accepted false assumptions and misconceptions about teaching and learning.

My challenge requires me to draw the attention of every educator. administrator and policy-maker to the fundamental neurological nature of learning, and the critical importance of every child's developmental readiness for learning[5]. These are aspects of learning that are either unknown or ignored by education's leadership, and subsequently, by teachers in schools - with catastrophic outcomes for children's education and society.

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[5] Readiness for learning is not a static, one-off achievement, it is developmental; and its requirements become evermore complex as children progress though their schooling. Every child's learning readiness requires deliberate fostering, otherwise underachievement is guaranteed.

BUT FIRST, A BRIEF LOOK AT RECENT EDUCATIONAL RESEARCH AND REFORM PACKAGES, BEGINNING WITH ONE EXAMPLE OF SIGNIFICANT ACADEMIC RESEARCH:

A notable attempt to improve teaching practice was carried out in the mid nineteen nineties by Melbourne University's Dr Peter Hill, with his well intentioned, highly respected, influential, and still widely utilised, ***Early Literacy Research Program (ELRP)***[6],[7].

With considerable time and resources at his disposal, and with the support of the Victorian Government and the Victorian Catholic Education Office, Dr Hill and his assistant, Carmel Crevola, set out to demonstrate that teachers in the most disadvantaged primary schools *could be trained to teach literacy successfully through a whole school design approach*[8].

As a teacher, with many years of teaching experience in both advantaged and disadvantaged primary schools, and having been recognised for developing a highly successful program in literacy and numeracy, I was not surprised to find that on page 8 of their report titled: ***"Key features of a whole school, design approach to literacy in schools",*** Hill and Crevola declared significantly and unequivocally:

"*At the same time, it is evident that* ***even given the high degree of support provided through the ELRP over three years****, the trial schools as a whole were* ***unable to improve literacy levels to reach the state wide minimum acceptable standard….*** *this indicates that while the Statewide Minimum Acceptable Standard is likely to be well within the reach of most primary schools* ***it represents a very ambitious target for the most disadvantaged schools****".*

Even in isolation, this one declaration must surely raise questions about the widely held expectations, demands, assumptions and beliefs enumerated above.

It also indicates, as I shall point out, that teaching, per se, is neither the problem, nor the solution to the learning crisis in our schools.

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[6] See hillcrev.pdf on line - Key Features of a whole-school design approach to literacy teaching in schools - Peter W. Hill and Carmel A. Crevola The University of Melbourne

[7] Primary teaching remains beholden to the accepted findings of the ELRP

[8]As far as I can ascertain, Dr Hill's approach did not give any consideration to, or make any allowance for the role that children's learning readiness plays in literacy acquisition.

THE SAD HISTORY OF POLITICALLY DRIVEN REFORM

Coincidently, four notably unsuccessful reform movements were also begun in the mid nineteen nineties. All were at the behest of successive Australian Governments.

The first of these was the brainchild of the then Federal Minister for Education, Dr David Kemp. It was known as the ***National Literacy Inquiry.***

Next came the ***National Inquiry into the teaching of literacy (NITL)***, which was instigated by Dr Kemp's successor, Dr Brendan Nelson, the outcome of which saw the NITL Report reduced to an academic opinion piece on the Teaching of Reading and the teaching of phonics.

Then, with great fanfare, and at great expense, came the ***Education Revolution***, which was set in train by Julia Gillard, then Minister for Education. Among other things, this included the establishment of The National Curriculum Board, and its successor, the Australian Curriculum, Assessment and Reporting Authority, (ACARA) and of course NAPLAN. Subsequently, we have seen the advent of the new **National Curriculum**, which alarmingly, and despite the excellence of its subject content, is predicated on the very same beliefs and expectations as those noted above. Further comments on the new National Curriculum are presented below.

A more recent attempted reform was initiated by Christopher Pyne with his signature pieces being the **2015** N**ational Curriculum Review** and the **Teacher Education Ministerial Advisory Group (TEMAG)**

As indicated by the repeated national testing programs of NAPLAN, and as confirmed by recent international studies, not one of these costly and disruptive reform packages has made any improvement to standards of literacy and numeracy in Australian schools.

I unhesitatingly predict that reforms such as these will never lift standards of literacy and numeracy as they all share one 'fatal' philosophical flaw. In over-zealous attempts to lift standards from unacceptably low levels, reformers incorrectly focus their attention (and blame placement) upon teachers, teaching methods and teacher training.

Reformers should know that instead, the real cause, and the potent solution for education's crisis are both to be found in an understanding of the neurological nature of learning, and the vital role that learning readiness plays in determining learning outcomes.

Other than expressing concern about socioeconomic and other educational disadvantage, and thanks to the influence of contemporary educational philosophy, the authors of these initiatives never consider the likelihood that the fundamental nature of learning has a determining influence on teaching and learning outcomes.

This very same phenomenon is the Achilles Heel of the New National Curriculum, which, according to my definition, is not a curriculum at all. It's a collection of high quality syllabus statements, and should thus be titled "The New National Syllabus Collection"**.** A school's curriculum is so much more than the pedagogic presentation of the high quality subject matter written into the National Syllabus Collection. That particular definition of curriculum explains why NAPLAN is irrelevant as a strategy for lifting standards.

PROPOSING A NEW APPROACH TO THE PRIMARY SCHOOL CURRICULUM, BEGINNING WITH QUESTIONS THAT HAVE NEVER BEEN ASKED:

"*What if the teaching, per se, is not to blame for widespread illiteracy and innumeracy?"*

"What if the twenty five percent of children who fail to become functionally literate and numerate, simply do not respond well to teaching? What if they cannot respond to even the best teaching?

What if tens of thousands of children actually fail, or underachieve, because they are not yet developmentally ready, not yet neurologically equipped for permanent literacy and numeracy acquisition, or for further formal learning?"

By accepting these as valid questions, and by seeking realistic answers, academics and researchers might be enabled to explain why Australia's Education System remains in a state of crisis - despite the enormous scale of resources and efforts that have been committed to Education Reform.

If improvements in standards of literacy and numeracy are the prime objective, then half a century's worth of research and reform has literally been a waste of time, effort and money; and, with the exception of the New National Syllabus Collection, has achieved little more than some 'window-dressing', along with the disgraceful denigration of teachers, and the sapping of their morale.

Even the excellent quality and depth of the subject matter in New National Syllabus Collection has distinct limits as an instrument of reform. Its contents cannot hold a great deal of meaning for students who are unable to learn successfully on account of their learning readiness being continuously compromised.

PART 2: THE SPECIFIC CONCEPTS OF LEARNING

LET'S SHIFT THE FOCUS OF PRIMARY TEACHING AND CURRICULUM, BY EXAMINING THE FUNDAMENTAL NATURE OF LEARNING, i.e. ITS *PHYSIOLOGY*

In order to do this, we need to examine primary teaching under a microscope, both figuratively and literally, by first asking:

How ***do*** children learn?

*The immediate and obvious answer is that fundamentally, children use their **senses** to learn.*

For teaching purposes however, it is vitally important that educators and policy makers have a much greater understanding of "sensory" learning than they appear to have at present.

Neuroscience tells us that children learn through their senses by utilizing the dynamic, neurologically structured, motor-sensory-perceptual processes of their central nervous systems.

Being dynamic, the motor-sensory-perceptual processes are subject to constant renewal, and because of this dynamism, are readily capable of assisted and accelerated development through environmental stimulation, even in the classroom.

The following is my elementary understanding of sensory motor and motor sensory learning, which I put to good use as a school principal, and which I have therefore garnered through teaching experience, and, as a matter of personal interest, by selective reading, and by the viewing of relevant audio visual material[9]

[9] See video on line - ABC's Catalyst stem cells in the brain for a graphic illustration and representation of the physiology of learning.

FOR THE SAKE OF MY FELLOW TEACHERS, HERE IS MY 'NECESSARILY NAIVE' VIEW OF THE FUNDAMENTAL NEUROLOGICAL NATURE OF LEARNING[10]

Neuroscientists tell us that at birth, a healthy baby's brain is well formed and already comprised of **tens** of **billions** of brain cells. Brain cells are known as neurons or neurones. Nature intends that as the child grows, the cell count should increase, the brain should grow, and that its neurons should form connections[11], so that interneurone communication may allow passage of neurological data that are vital for living and learning.

Neuroscientists also tell us that the formation of brain connections is an ongoing process, which, over time, makes the development and maintenance of all the body's physical and mental functions possible. These are all the functions that involve physical, emotional, social, intellectual/cognitive and aesthetic growth and development; and that of course, includes all the different kinds of learning undertaken over a lifetime.

For teaching purposes, it is probably safe to imagine that at birth, billions of the brain's neurons have yet to form connections, and are yet to be myelinated. Myelin is a 'fatty' substance, which, according to neuroscience, progressively encases the axons of neurons; providing both insulation, and acceleration of interneurone communication.

According to neuroscience, our entire existence, including all learning and knowledge acquisition, is subject to the non-stop formation and strengthening of brain connections and the myelination of neurons' axons; massive swathes of which occur continuously throughout infancy and early and later childhood.

We are told that connectivity and myelination occur progressively in response to environmental stimulation, not least of all, the stimulation provided by physical activity**.** The richer the environmental stimulation, the more extensive the connectivity and the myelination - effectively promising an efficient brain for learning. Pruning of unused brain cells also occurs, but I would need to have a neuroscientist explain the effect on learning.

Enlightened by the educationally significant research of Professor Perry Bartlett and his team at Queensland Brain Institute, we now know that physical activity also stimulates stem cells in the brain to produce new neurones, which, following the laws of cell division, differentiation and specialisation, may add to the brain's connectivity and its perceptual and cognitive learning ability.

For neurological data sharing, but without actually touching each other, neurons connect across minute processes known as synapses. Neurons connect when their axon terminals (transmitters) reach out to dendrites (receivers) of pairing neurones. In addition, and also in response to stimulation, myelin forms a coating around each neurone's axon, thus acting as insulation against electrical interference, and, as it thickens, helps accelerate the processes of interneuron communication - factors that are vitally important in learning[12].

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[10] A Disclaimer: Although keenly interested in, and regularly referring to its findings as they relate to teaching and learning, I have no training or qualification in neuroscience.

[11] Synaptic connectivity is a wonder of nature, which requires a far more scientific explanation than this writer is able to offer.

[12] Readers of this document are urged to refer to images and descriptions of neurons, axons, axon terminals, dendrites, synaptic connectivity and myelination that are freely available on the internet.

As I understand it, cognition and cognitive learning cannot occur smoothly and speedily without *strongly developing* neurological connectivity, without *continuously* thickening myelination[13] and without *useful* neurological organization; thus, as I shall endeavour to explain, highlighting the relative ineffectiveness of teachers when they are faced with seriously underachieving students.

THE VESTIBULAR AND PROPRIOCEPTIVE SYSTEMS, PERCEPTUAL PROCESSING AND COGNITIVE LEARNING

Cognitive learning is made possible by our *motor-sensory-perceptual processes,* which are the mechanisms that are established through organised interneurone connectivity.

Our motor sensory perceptual processes provide connected *"learning pathways"* from the sensory receptors, via the Central Nervous System, to, within and away from the brain - priming the intellect in the process.

When environmental information reaches the sensory receptors - (i.e. the skin, the eyes, the ears, the nose, the tongue, muscles and joints), the information is converted into neurological data, and transmitted via the Central Nervous System's Vestibular and Proprioceptive Systems, to relevant parts the brain. Transmission is achieved by means of electro-chemical message carriers. Message carriers take the form of electrical impulses, which, flashing through neurone after neurone, and through clusters of neurones, leap synaptic processes with the assistance of chemicals known as neurotransmitters[14].

I have read that in this way, over two million nerve impulses impact the brain every second. This requires well ordered neurological organization, otherwise confusion will reign in the brain of a learner.

Once processed by key elements of the Central Nervous System, firstly by the Vestibular System, then the brain stem and the hippocampus, the neurological data are stored as tiny physical and chemical changes to masses of brain cells as memory - and are thus ready for *cognitive retrieval* in 'reverse' perceptual motor processes. *Smoothly operating sensory/motor and motor/sensory processes are absolutely essential for the ease, certainty and permanence of cognitive learning.*

For this is how we acquire, store and retrieve knowledge[15] and this is how children learn from their teachers. It is primarily through neurological connectivity therefore, that children are enabled to become receptive and responsive to teaching. Strong connectivity allows instantaneous and meaningful *receptiveness* and *responsiveness* to teaching - and to all other sources of learning. Children's receptiveness and responsiveness therefore call for constant awareness by their teachers, otherwise connective immaturity will always inhibit the learning of a great many individuals.

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[13] With significance for scientific studies of learning, and indicating the important role of myelin in learning, Multiple Sclerosis is an incurable disease, which results from the hardening (sclerosis) of the myelin sheaths of the axons of neurons, slowly blocking interneurone communication, and ultimately, fatally disrupting all the body's physical and mental functions.

[14] The functional quality of neurotransmitters is reliant upon the nature of a person's diet; another significant factor in the literacy and learning puzzle.

[15] Reference: 2002 Emory University News release - Rethinking the way we think

A closer look at the perceptual processes and their vital role in learning.

The body's perceptual processes are identified as, ***t****he auditory, visual, tactile, olfactory, gustatory, vestibular and proprioceptive systems,*[16] which represent the senses of balance, motion, sight, hearing, touch, smell and taste.[17]

All are vitally involved in learning, and are particularly dependent upon physical and sensory stimulation for their development. Movement coordination therefore, is central to the efficiency and effectiveness of a child's learning ability. Immaturity of the sensory processing systems in students, as evidenced by immature gross and fine movement coordination, inevitably stymies teachers' efforts.

Perception and proprioception are not simply matters of seeing, hearing, touching, smelling, tasting and moving; for we *perceive* in *multiple* ways.

Visual perception, for example, is a very complex neurological and intellectual process, which must undergo long-term developments throughout early and later childhood, i.e. whenever they can be facilitated by sensory motor - motor sensory stimulation.

The Vestibular and Proprioceptive Systems play important parts in visual perception by virtue of their association with the auditory system.

With visual perception, teachers should understand the following identifiable functions:

- Visual acuity - (readers would be familiar with the acuity assessment 20/20 vision[18]);
- visual discrimination and visual differentiation, the brain's ability to compare new data with data already stored as memory
- visual memory,
- motion perception
- colour and depth perception,
- perspective,
- close,
- and one of the most important to a child in a classroom - figure ground perception

Similar terms and expressions help us to define auditory, tactile, olfactory and gustatory perception.

Figure ground perception allows a child to focus on one figure in the learning environment, e.g. the teacher, and/or the learning task at hand; and to ignore extraneous figures in the background, i.e the presence, movement and sounds of other children. The child with poorly developed, or immature figure ground perception may be constantly in a state of utter confusion in the classroom.

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[16] Readers are urged to make their own investigations of the Vestibular and Proprioceptive systems as well as the other five sensory systems. This is a vital role for teacher education.

[17] Sally Goddard's book "The Well Balanced Child" is a wonderful source of inspiration for teachers.

[18] Doctors merely test for visual and auditory acuity. A child can have 20/20 vision but still be hampered by immature and learning-inhibiting visual and auditory perceptions

SENSORY INTEGRATION

Whilst each of our perceptual functions has a different, or independent task to perform, they are all interdependent, and are of best use to us when we achieve useful sensory integration - i.e. when all our senses are working in harmony to enable us to make sense of everything we encounter in our daily living; also enabling children to make sense of everything they are being taught.

Propelled by physical and sensory stimulation, the Vestibular and Proprioceptive Systems facilitate that vital function of sensory integration.

An elementary understanding of the fundamental neurological nature of learning is therefore absolutely essential for all teachers. It is to be hoped that once equipped with that understanding, teachers would know that they can assist children to overcome delays and deficiencies in their childhood development, and in that way, find themselves enabled to facilitate successful learning among their students.

Teachers should know that they can overcome developmental immaturity by using physical activity, and the sensory stimulation of speech training and spoken language development, as well as many other areas of curriculum such as music, as precursory activities for all their teaching.

A word of caution, teachers must be careful not to overexert their students, and very careful not to overload their senses with such things as extravagantly colourful classroom displays.

By providing this teacher's explanation of the fundamental nature of learning, I trust that it will become perfectly obvious to educators, to policy makers and any likely would-be reformers, that children with mature motor sensory processing, well developed speech and spoken language are capable of being taught easily and successfully.

But, on the other hand, those 20 - 25% of children who are not maturing as nature intends, will always be difficult to teach, and will certainly not learn according to their individual intellectual capacity - i.e. unless they receive assistance with their learning readiness; all of which emphasises the futility of proceeding with teaching without due regard to readiness. This also emphasises the futility of assessing children's learning outcomes according to standards in the hope of generating improvement in standards.

Naturally, all I have written here would make more sense to teachers if their pre-service and inservice training included studies of biology, with particular emphasis on cytology.

The Most Logical Explanation of Educational Advantage and Disadvantage:

Sensory stimulation and movement-coordination-inducing physical activity play pivotal roles in the processes of (a) interneuron connectivity, (b) myelination (c) sensory processing and (d) neurological organization, which children should be achieving in childhood play and in family and social interaction. This means that these developments also play pivotal roles in the speed, ease and success of learning. But that's not all!

For right there, we have the theoretical basis of a desperately-needed teaching and learning concept; one which perfectly highlights the differences in learning outcomes between advantaged and disadvantaged lifestyles, and which, by extrapolation, provides a concrete, logical explanation for the great bulk of learning difficulties faced by educationally disadvantaged, but otherwise intellectually capable children - and their teachers.

So, permit me to extrapolate.

All that we see, hear, touch, taste and smell, and every movement we make, even deliberate stillness, stimulates and strengthens interneurone connectivity - which the stimulation achieves by prompting neurological communication, and, given time and opportunity, by bringing about *neurological organization;* which in its turn, allows use of the senses for learning.

For teaching purposes, it is important to note that *repetition* of sensory and physical stimulation, which may easily be provided within the primary school curriculum[19], actually strengthens brain connections, thereby readily facilitating successful learning.

That's because everything children learn can only be internalised, intellectualised and conceptualised - i.e. learned - as a direct result of neurological connectivity and neurological organization; factors that are either unknown or woefully ignored by dominant educational theorists and overzealous reformers.

Our integrated sensory motor processes are also activated when we recall everything we might have perceived; and that means everything we have successfully and permanently learned from teachers. Knowledge hasn't been successfully acquired if it can't be retrieved and re-presented intellectually, or physically, if needs be.

When we think of an apple pie for example, our central nervous system's connections and integrated sensory/motor mechanisms allow us to tap into memory, and almost exactly recall its appearance, its aroma, its taste, and how it feels to the touch - all from stored memory - without the physical presence of the pie. (Barsalou)

That's the process that occurs if children are learning successfully and permanently. But obviously, it cannot always be the case, because, being hindered by delays in neurological development and overall maturation, many children are not ready to learn successfully and permanently, i.e. to acquire, store and retrieve knowledge to everyone's satisfaction.

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[19]This concept of repetition validates the introduction of rote learning when understanding has been established.

As already indicated, children's perceptual pathways are not static - they are dynamic; and representing the plasticity of the brain, can be readily fine-tuned with help from their teachers. Fine tuning means more and stronger neurological connections, consequently, ensuring easier and more permanent and more successful learning.

These long-hidden concepts of learning should now be offered to teachers to help them understand that:

(a) the perceptions of successful learners have already been well formed and delicately fine-tuned by virtue of an active and stimulating early childhood;

(b) thus explaining why it so easy to teach them;

and (c) that educationally disadvantaged children, representing perhaps 25 - 30% of the nation's total school population, are not so fortunate - nor are their teachers.

On account of missed opportunities and challenges in infancy and early childhood, the perceptual or learning pathways in the brains of educationally disadvantaged children may not have become well organised, may not have formed connections with sufficient strength to allow ease and accuracy of perception and cognitive learning.

This means that learning at school becomes very difficult for such children, and even explains why, throughout their schooling, so many children develop difficult-to-explain learning and behaviour problems such as ADD, *and why they are so hard to teach.*

It also means, in no uncertain terms, that teachers have long been misled in their professional development, and simply don't know what to do. Therefore, teachers cannot be blamed entirely, when twenty five percent or more of our nation's intellectually capable children fail to become functionally literate and numerate. Putting pressure on teachers to improve their teaching performance is illogical, and is an utter waste of time and energy.

This reality has serious implications for our entire education system - especially its leadership. It has profound implications for educational research studies, for data collection and analysis, and for psychological theorising, all of which seem to be focused entirely upon teaching and the assessment of teaching outcomes.

And that must surely indicate that in keeping with other reform packages, the Education Revolution with its NAPLAN component, is no more than a dreadfully expensive, and unnecessary distraction for teachers, as they struggle in vain to improve learning outcomes without the intellectual enlightenment they so desperately need.

All the above should explain why I claim that teachers should be seen as "facilitators of learning" rather than primarily being seen as teachers of subjects and subject matter.

But, all need not be lost for disadvantaged students and other underachievers[20], because the plasticity of the human brain, and the dynamic nature of children's motor sensory perceptual processes, are nature's precious, unrecognised, unappreciated and <u>unutilized</u> gifts to teachers.

By simply providing supplementary and compensatory activities in classroom routines - as they teach, primary teachers could, and should, hour by hour, day by day, help children achieve readiness for all sorts of learning; Readiness that will set students up for the complexities of secondary and tertiary education, which it can do, by allowing them to access their true individual capacity or potential for learning.

Developmental readiness for learning determines a child's receptiveness and responsiveness to teaching, and is thus the primary and major determinant of learning success for students.

Contrary to universal assumption and popular belief, teaching is a *secondary* determinant of learning success for all students.

[20] Not all underachievers are socially and economically disadvantaged; furthermore, a great deal of underachievement is not recognised for what it is. Lots of children in affluent families become educationally disadvantaged by virtue of missed opportunities and challenges in infancy and early childhood, by virtue of trauma, by inactivity and poor interaction with family members.

How may teachers assess children's developmental readiness for learning?

Obviously, teachers are unable to directly see neurological connectivity that has taken, or is taking place inside the brains of children; nevertheless the most visible signs of significant connective activity, and readiness, are already displayed by successful learners - even from their first days at school. This means that commensurate with chronological age and individual physical and intellectual potential, such children are most likely to display :

- Good gross and fine movement coordination and balance,
- Emotional stability and the ability to play and act cooperatively,
- Definable receptiveness, responsiveness to, and cooperativeness with their teachers
- Clear articulate speech derived from family and social influences
- Well developed spoken language on a rich base of vocabulary
- A good sense of self - i.e. self understanding, also described as self percept
- Genuine self esteem
- A degree of self confidence - self reliance - self respect and respect for others
- Spatial and social awareness i.e. awareness of the need for, and use of personal space, and awareness that others also have need for space
- Appreciation for music, art, literature and other aesthetically pleasing experience

On the other hand -

Children who are known to be, or are shaping-up to be unsuccessful learners throughout their schooling, do not display the same quality of the attributes noted above.

They are the children who are **not ready for learning**. They are at least likely:

- to have immature gross and fine movement coordination and balance,
- to be emotionally volatile and given to tantrums - easily aroused to anger if others intrude on their personal space - to have poor spatial and social awareness - think road rage,
- to have poor speech habits resulting from poor auditory perception - e.g. voicing 'wif' for with, 'muvver' for mother
- to have less well developed spoken language/ vocabulary - to have poor self expression
- to have a poor self image, with poor self esteem - but may exhibit an aggressive pseudo self esteem - think bullies
- to be lacking self confidence, self respect, self reliance - think of grown-ups you know
- to be less receptive and less responsive to their teachers - think all reluctant learners

Part 3: THE BEAUTY AND THE SIMPLICITY OF READINESS-BASED TEACHING

In offering my simple, but verifiable proposal for the remediation of the literacy and numeracy dilemma in our schools, and to indicate the potency of readiness-based teaching, I refer once more to the Citation of the Judges for the 1981 Teacher of the Year Award, from which I quote with emphasis:

"As a teacher and later as a principal, [redacted] *has encouraged the development of a curriculum at all levels with Physical Education as the central part of the program. T**he integration of academic and physical activities has resulted in an exceptionally good rate of literacy in two schools with large migrant populations**. As a result of this integrated program, the interest and participation has been very high at all levels.* [redacted] *has inspired his own staff, as well as teachers in other schools, to incorporate physical education into all aspects of the school curriculum."*[21]

*"He believes that the development of each child's **basic skills**[22] **of movement coordination, speech and sensory perception determines the development of language skills** which are essential in the prevention of learning difficulties."*

This work demonstrated that the fostering of learning readiness requires amazingly little time each day, and that it is a relatively simple, very easy, and very rewarding strategy to apply to the primary school curriculum. It even leads to inspired teaching.

Facilitating developmental readiness for learning is a practical way of helping children to make better use of their brains, so they may more readily access their true intellectual potential.

Therefore, the objectives of readiness-based teaching are:

1. To use the stimuli of motor-coordination-inducing physical activity plus the sensory stimulation of a dedicated speech and language development program, further assisted by music, singing, literature and other relevant areas of an integrated curriculum, to bring all children to optimal states of developmental readiness for learning[23].

2. To develop an integrated curriculum, one which offers every possible opportunity and challenge, so that every child may become fully receptive and responsive to the teaching and thus to the subject matter prescribed by the National Syllabus Collection.

3. To assist all children, especially those from educationally disadvantaged backgrounds, to acquire and display the attributes of the successful learner.

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[21] The nascent interest indicated at that time, was circumvented by the interference of determined, but uninformed policy makers, with their ill-conceived and futile reform packages, aided and abetted by high-profile academics with ill-conceived concepts of primary teaching and learning.

[22] These are the basic or foundational skills of learning that are developmental, and which capable children must have in ample measure if they are to always be successful learners at school.

[23] A child's optimal state of developmental readiness is seen as being relevant to individual physical and intellectual potential; remembering that true potential can only be guessed at.

To accomplish this task of assisting children's developmental readiness for learning, the attributes most required by teachers are set out below, they are, in addition to all their other attributes and skills:

1. ***Persistence*** - look for enjoyable and stimulating activities to be employed in readiness-based teaching, and develop them into daily classroom routines.

2. ***Perseverance*** - stick to the task until genuine changes appear in children's behaviour and their enthusiasm for cooperation and learning - and then keep going for evermore.

3. ***Patience*** - be prepared to wait as long as it takes - some children may respond within six weeks, others six months, a few more than a year to exhibit desirable changes to readiness and cooperative involvement. Above all, don't give up if changes don't occur immediately.

My recommendations for developing and adopting a readiness-based approach to the primary school curriculum are to be found in a series of letters and submissions I have presented to to Ministerial and Parliamentary Inquiries, and successive Ministers of Education - Dr David Kemp, Dr Brendan Nelson, Julia Gillard and Christopher Pyne.

Should recipients of this present submission wish to receive copies of any of those documents, I shall forward them electronically on request.

These include:

- Submissions Nos. 9 and 156 to the 2005 National Inquiry into the teaching of literacy.

- Submission to the 2004 Victorian Parliamentary Inquiry into the suitability of pre-service teacher training in Victoria.
- N. B. See the Parliamentary Committee's Report "STEP UP - STEP IN - STEP OUT" pp 130 - 132, where, in reference to my submission, the Committee advises "It is clear to the Committee that the education and training communities cannot afford to ignore the serious challenges facing teachers and teacher education raised in this section.

- Submission to TEMAG 2015

- NO CHILD SHOULD FAIL - A Pilot Education Project and Research Study in three parts, which was approved by the Victorian Education Department and conducted in schools on the Mornington Peninsula:

1. The Introductory Brief
2. The Research Study Report
3. A compilation of participating teachers' responses to a relevant questionnaire.

- Submission to National Curriculum Board at the suggestion of Julia Gillard

In conclusion, I trust that this presentation has convincingly delivered the specific concepts of learning, which all primary teachers must possess, and translate into teaching practice, if they are to empower all intellectually capable children to become literate and numerate with ease and permanence.

At this point, I strenuously urge readers of this document to consider the following experience-based propositions, which I believe, represent the most likely formula for resolving the literacy and numeracy dilemma in our schools.

1. Children do not learn to read simply because they are taught reading and phonics. That's because young children are only able to learn to read, if, prior to being subjected to literacy teaching at school, a host of physical and language developments has taken place in their bodies, brains and minds.

Unless these developments take place early in the lives of all capable children, including their early years at school, learning and literacy acquisition will always be very difficult for the 20 - 25% of them, those who are serious underachievers. Any underachievement is a very serious matter.

2. Contrary to universal beliefs and assumptions, primary teachers do not teach children to read; instead, they facilitate the learning.

3. All primary teachers should be able to facilitate successful literacy acquisition by : providing a safe, secure and caring learning environment; one that provides every opportunity for children to develop gross and fine movement coordination - *to a level that is commensurate with chronological age and individual potential;*
one that provides every challenge and opportunity to enable children to develop strong neurological connectivity;
one that enables the development of strong and accurate sensory perceptions, thus more meaningful sensory integration;
one that provides the material resources needed for the task,
and provides every opportunity for children to develop articulate speech and spoken language, with provision for phonics, so that all the above provisions might, collectively, enable children to readily perceive the connections between spoken and written language, when especially, as part of the curriculum, they begin to learn to express themselves in simple writing; and, as the time arrives, to quickly and excitedly learn to read of their own volition.

To make that a real possibility, I invite a rethink on the part all those educational theorists, researchers and policy makers who stridently insist that direct and remedial teaching of reading, phonics and number will produce literate and numerate students.

Direct and remedial teaching can do no such thing outside the context of developmental readiness for learning; nor can testing for standards contribute to successful learning

4. Being able to instigate and witness literacy acquisition occurring in this fashion, throughout an entire disadvantaged school, was the highpoint of my teaching career.

IN SUMMARY:

As confirmed in the 2015 NAPLAN National Report, Education in Australia is mired in a crisis of alarming proportions. It is a crisis of its own making. Decades of attempted reform have not only failed to resolve the crisis, they have exacerbated it. Now, despite the expenditure of billions of dollars by Australian Governments, it is plainly evidenced in NAPLAN data, that currently, one in five Australian school students is struggling to achieve and maintain minimum acceptable standards of literacy and numeracy.

This is a catastrophe, for it surely means that from one generation to the next, many tens of thousands, perhaps hundreds of thousands of Australian students are unnecessarily passing through our school systems as underachievers[24]. ***This is all because no one has ever seen any need to understand, or to cater for children's developmental readiness for learning.***

This essay is presented in an endeavour to illuminate the factors that contribute to the crisis and to offer an insight into its resolution.

It is also presented as a challenge to the overarching Philosophy of Education, and to the false assumptions, expectations and beliefs, which collectively drive ill-conceived reform processes, and consequently, corrupt classroom teaching practices.

Furthermore, it is meant as a challenge to those academics who, with no real or long-term experience of primary teaching, arrogantly insist that anecdotal evidence, and any ideas that differ from their own cannot be accepted, unless and until they are subjected to research, with their findings verified by peer review, and then published.

There is nothing contained in my submission that requires further research, or requires the inclusion of any activity that is not already a legitimate, although long-neglected element of the primary school curriculum.

The only added requirement is that teachers should understand the fundamental nature of learning, and the determinant role of developmental readiness for learning. It is especially important that teachers understand the need to continuously foster readiness - as a precursor to all teaching.

I cannot emphasise strongly enough that the persistent stimulation of the body's motor/perceptual, vestibular and proprioceptive systems, in conjunction with speech and language development, is absolutely essential if all capable children are to be brought to viable states of developmental readiness, and thus enabled to learn with continuing success - from the beginning to the end of their schooling.

This is why it is recommended that readiness-based teaching should be introduced into the education system without delay. It is such a simple and effective thing to do, and is entirely possible without additional cost to any school's budget, or the education budgets of Federal or State Governments. Gonski funding is definitely not required.

It is simply a matter of supplying teachers with the science-backed concepts of learning, such as they are presented in this essay, along with lots of encouragement to adopt them in teaching practice.

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[24] Underachievement is relative to individual potential - it is not relative to standards.

ADDENDUM

Although Autism, Dyslexia, Attention Deficit Disorder (ADD) and Attention Deficit Hyperactivity Disorder (ADHD) are deemed to be clinically diagnosable learning disabilities, it would nonetheless be useful for teachers to consider the following propositions, should they find themselves charged with the responsibility of teaching children with any of these disabilities:

AUTISM = Neurological DIS-ORGANIZATION = disorganised motor sensory perceptions = fragmented sensory integration, indicating, or suggesting that sufferers would most likely respond to the therapeutic benefits available to all children in a readiness-based primary school curriculum.

DYSLEXIA = delayed or deficient Neurological Organization = confused sensory perceptions = delayed sensory integration, indicating, or suggesting that sufferers would most likely respond to the therapeutic benefits available to all children in a readiness-based primary school curriculum

ADD = delayed Neurological Organization = confused sensory perceptions = delayed sensory integration, suggesting that suffers would most likely respond to the therapeutic benefits available to all children in a readiness-based primary school curriculum.

ADHD = chaotic and painful Neurological DIS-ORGANIZATION = limited sensory integration = fragmented and confusing sensory processing - suggesting that sufferers should theoretically respond to the soothing, therapeutic influences of a carefully designed readiness-based primary school curriculum.

Including these children in whole class activities within a readiness-based primary curriculum would certainly not do any harm, but could, in theory and practice, enhance the clinical treatment they receive from professional practitioners.

“Primary Teaching Under the Microscope”

SUPPLEMENTARY STATEMENT

There’s so much more to Literacy Acquisition than can be Achieved by having Teachers *“Teach”* Reading as a Stand-alone Subject.

A Readiness-based, Broad Spectrum and Sequential Approach to Literacy is surely to be preferred.

Unless they are victims of poorly conceived and ill-presented curricula, all intellectually capable students should have already become truly literate by year six; meaning, that after six years of primary education they should **clearly exhibit mastery of all facets of literacy, namely**:

1. The ability to reproduce good, clear, articulate speech, with a well developed spoken language capability, which of course, must come with an enriched and ever expanding vocabulary.

   N.B. *T**he invaluable art of producing good, clear articulate speech may be readily facilitated and achieved**, **even for educationally disadvantaged students,** courtesy of a solid, readiness-based **speech training and integrated language development program**. Fundamentally, speech training is physical education of the mechanisms of speech, all of which require control of **breathing**, **vocalisation** and **the fine motor coordination of jaw, mouth, tongue and lip movements** as well as requiring **flexibility of cheek muscles**. Presented as elements of **simple, safe and enjoyable routines,** speech training and language development activities provide wonderful stimulation for auditory and visual perception.*

   *Simple, and highly effective **phonics, vocabulary**, **spelling, handwriting** and l**anguage development programs** can **all** flow from daily speech training, especially if they are centred around students’ own curricular and extracurricular experiences. Another invaluable strategy is to employ rote learning in the regular repetition of visually and aurally presented rhymes, poems and songs. This is vitally important for underachieving children, and for those children for whom English is a new language.*

   Singing and poetry recitation should be prominent features of every primary school’s comprehensive literacy program, providing opportunities for language growth, for assisted whole-class reading and for the understanding of language forms, tempo and vocal colour, for sentence structure and grammar. Singing adds great pleasure to literacy acquisition.

2. The invaluable art of confident **self expression** through spoken language, drama, singing, music and art.
3. **The ever-increasing ability and skill of producing <u>fluent, legible handwriting</u> -** to the point where the handwriting becomes a near automatic response to the thought processes occurring whilst expressing one's own ideas in writing.

   N.B. *High quality handwriting skills require well developed gross and fine motor skills, which are readily facilitated in children by way of an integrated, readiness-based, whole-school primary curriculum, thereby providing a properly focused handwriting program. There is so much to be gained emotionally, socially and academically by assisting children to produce* ***attractive, high quality handwriting****, for which they may rightly feel immense pride*[1]*.*
4. Capitalising upon all the above, and beginning with simple, well written sentences, the ever-increasing ability to encode one's own spoken language as written language, which also requires the ever-blossoming development of comprehensive 'word-attacking' skills, themselves requiring the acquisition of phonetic analysis skills, as far as possible, **within the context of the student's own experiences and spoken and written language**.
5. A well-found knowledge of sentence structure and grammar - aided by regular sessions of dictation - which also test spelling skills and fluency of handwriting.
6. The ability to utilise auditory and visual memory to accurately recall the spelling format of acquired vocabulary, whilst it is being recovered from short-term and long-term memory.
7. The long-established ability to accurately perceive the connections between spoken and written language.
8. The ability to instantly respond to the written language of others with either **audible speech or silent inner speech** - either one of which requires the ability to accurately perceive written language as encoded spoken language.
9. The ability to utilise the word attack skills garnered whilst writing down one's own thoughts, so that those same skills enable a student to instantly decipher the pronunciation of newly encountered words in the writings of others.
10. The willingness to seek the meaning of newly encountered words via the dictionary.
11. The ability to intellectualise and conceptualise from the writings of others.
12. The ability to accurately perceive, i.e. comprehend, the meaning that is encoded in the written language of others, as in books and other reading materials.
13. The ability to utilise the skills of spoken and written language, coupled with carefully nurtured reading skills, all of which should be acquired throughout seven years of involvement in a conventional and comprehensive reading program. Primary teachers should hear every chid read something aloud every day, and read something to children every day - e.g serial reading.

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[1] Low tables and uncomfortable plastic chairs do not allow for the best handwriting to be produced, as posture is very important for learning to write well.

14. A Love Of Reading - Manifested As A Love Of 'Reading To Learn' And 'Reading For Pleasure'.

15. As all the above abilities, skills, attitudes and achievements come to fruition, they should enable truly literate students to undertake independent learning. This is a desirable academic achievement which, for some advanced students, may even feature in the early year levels; but should certainly feature among **all** students throughout the middle and upper levels of their primary education.

    Upon transitioning from primary to secondary schooling, truly literate students should thus be well prepared and equipped for the rigours of secondary, vocational and further education.

As far as possible, every element of a well-balanced, sequential, board spectrum, integrated and comprehensive literacy program - as detailed above, should regularly receive its fair share of attention within a whole school, readiness-based curriculum.

That's what "literacy teaching" is all about; although I would prefer to describe it as a process of facilitating learning.

Facilitation has two meanings in this sense:

1. ***Making it <u>possible</u> for children to learn to write and read.***
2. ***Making it <u>easy</u> for children to learn to write and read.***

Why Reading should not be taught in isolation as a stand-alone subject!

The universally sanctioned practice of "teaching" reading in isolation should be actively discouraged and ultimately discontinued, because:

1. The practice leads to the false belief that reading equates with literacy, thereby leading to a thoroughly unbalanced understanding of literacy, in that books seen as the prime source of reading instruction.
2. The printed language of books does not always relate to the spoken language of students.
3. Learning to read by being taught in this way can be so laborious and so time consuming, that there is little time left for other elements of literacy.
4. **Direct teaching**, **remedial teaching** and even the up and coming **"evidence-based", "data-fed" practices**[2] described as **the targeted teaching of reading,** all perpetuate the fragmented, subject-oriented approach to teaching, which has long dominated and despoiled education.
5. No aspect of literacy should be taught in isolation because that particular universal practice requires teachers to teach important components of literacy out of context; that applies most especially to phonics and grammar, which should always be taught in the context of spoken and written expression.
6. With the backing of a comprehensive supply of reading and instructional materials, teachers can best help children learn to read sequentially, continuously, quickly, permanently and enjoyably, beginning with, and by way of, their own spoken and written expression - as set out in detail above.
7. Capitalising upon the physical education of children's bodies and motor sensory perceptual processes, the sequence to be followed at all year levels should begin with the development of good clear articulate speech, and thus, toward mastery of spoken language, then flowing naturally through handwriting to written expression, and in that way, leading quickly to reading with fluency and comprehension - always with the support and encouragement of the teacher.

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[2]There is absolutely no need for schools to be converted into "data factories", with teachers being required to constantly and slavishly load data onto "data conveyor belts".

The Maxims of Teaching

These time-honoured maxims of teaching contain the most practical advice that can be offered to teachers!

As you teach you should:

1. Proceed from the known to the unknown
2. Proceed from the simple to the complex
3. Proceed from the easy to the difficult
4. Proceed from the concrete to the abstract
5. Never attempt to teach anything new to children who are not ready to learn - because they cannot be expected to learn it successfully - and that includes literacy and numeracy.

Despite the sheer logic of these maxims, we have an education system which is founded on the teaching of subjects and subject matter carried out *without due regard for children's developmental readiness for learning.*

Failure to observe the maxims of teaching is guaranteed to make life difficult for both teacher and students.

From: [redacted]
To: [redacted]
Cc: NSW Productivity Feedback
Subject: Further feedback
Date: Monday, 21 September 2020 11:32:24 AM
Attachments: [redacted]

Dear [redacted]

Thank you for acknowledging receipt of my feedback dated 1 September 2020,

As you and the Commissioner would no doubt gather from an initial reading of my documents, this matter is of intense interest to me.

It is fair to say that for the past quarter of a century, I have conducted a solitary and very lonely campaign to bring about change by making sustained efforts to share my special concepts and practical knowledge with the Education Establishment.

In summary: I had come to realise the urgent need to change my way of thinking while experiencing a unique set of circumstances in my teaching, which in turn, led me to develop a new approach to my classroom teaching.

I hope I have made it clear that my new approach produced outcomes, for which all teachers strive, but most fail to achieve.

If adopted by all primary schools, I truly believe that this approach would make a huge difference to so-called national standards.

The more I hear and read the pronouncements of leading educators, the more I realise that the need to change their way of thinking is becoming increasingly urgent.

This realisation has led me to lately call for a Renaissance in Educational Philosophy featuring a Rebirth of the way we think about teaching and learning, especially learning.

This Productivity Commission's Green Paper provides the perfect opportunity to initiate that Renaissance by taking the thinking all the way back to the fundamental neurological and developmental nature of the brain's ability to learn. Educators have so much more to learn about learning.

In support of my call for change, which is now an urgent plea, I am attaching two of my earlier documents. These were my two formal submission to the 2005 National Inquiry into the Teaching of Literacy (NITL) About to be sent in a separate email is the 2002 Emory University News Release featured in Sub 9, which I hope will be seen as the scientific catalyst for change.

You should be interested to find that these 15 year old submissions carry a contradictory assessment of the measures your Green Paper intends to recommend to the NSW Government.

As I search my files, I'll decide which of them should be forwarded to you.

I make no apologies for this avalanche of documents - for I believe it is imperative that they are read and circulated far and wide.

Should it be deemed necessary, I shall forward ministerial responses to my proposals.

Sincerely,

[redacted]

Submission No. 9

A PERSONAL SUBMISSION TO

THE AUSTRALIAN GOVERNMENT'S INQUIRY INTO THE TEACHING OF LITERACY

[redacted]

[redacted]

AND

[redacted]

[redacted]

THE BACKGROUND TO THIS SUBMISSION

- Drawing upon years of teaching experience in a meaningful cross section of rural and urban primary schools, each with its own contingent of underachievers, I finally found wonderful inspiration among the underprivileged, underachieving children in our most educationally disadvantaged schools.

- While focusing on the lagging speech and oral language development of my pupils, and at the same time managing problematical behaviour by engaging the whole class in frequent, simple, repetitive, physical exercise in the classroom, I witnessed their amazing transformation from rebellious underachievers into enthusiastic and successful learners.

- The transformation was so remarkable that I was inspired to seek a complete explanation. In undertaking that quest, I gained an understanding of the extraordinary and unanticipated influence that the fabric of early childhood development imposes on teaching and learning. I was thus privileged to find the enlightenment that all teachers should seek and find.

- ***In order to acknowledge and publicize the highly successful, whole-school program in literacy and numeracy that flowed from that enlightenment, The*** [redacted]

- Astonishingly, the unprecedented success of my whole-school curriculum program is yet to be replicated. This is solely because the major thrust of Primary education remains misdirected by education policies that are founded on false assumptions; and which, in turn, are exacerbated by incorrectly focused academic research.

- Fortunately, present-day research by the world's leading neuroscientists and cognitive psychologists is reaffirming the validity of my highly successful approach to the curriculum. Now in retirement, my continuing vocation is to seek fertile ground for propagating the seeds of enlightenment.

EXECUTIVE SUMMARY

- A critical challenge to contemporary education policies and philosophies is long overdue, because the mainstream of modern education has consistently demonstrated its inability to ensure optimum learning outcomes for all intellectually capable children.
- A critical challenge to academic research in education is ***also*** overdue because it has consistently failed to provide teachers with practicable solutions to the learning and literacy dilemma.
- If these indictments were not justified, the current Inquiry would definitely not be required.
- Policy makers and academics carry much of the responsibility for the learning and literacy dilemma in our schools, and should no longer be permitted to deflect or focus the blame for education's failings entirely onto teachers and teaching methods.
- On the strength of my proven teaching record, I challenge all policy makers, academics and teachers to question their personal philosophies, theories and beliefs – especially their understanding of children's developmental readiness for learning.
- It should be patently obvious that unless there is a carefully formulated adjustment to the philosophies and policies underlying the primary school curriculum, there can be **no** significant improvement in **learning** and **literacy** outcomes throughout the entire student population.
- The objective of my submission therefore, is to strenuously urge, and assist the Australian Government to develop viable policies, and to begin by shifting the **initial** focus of the primary school curriculum **away** from the **premature** teaching of literacy, **with all its disastrous consequences**, placing it instead on the promotion of **children's developmental readiness for learning**.
- Without curriculum assistance for their readiness development, successful literacy acquisition is not possible for **many, many children**. For even if all the seriously underachieving children in our schools were to be exposed daily to the very best teaching practices of the very best teachers, they would still not achieve desirable states of literacy. This will always be the case as long as there is no provision made for teachers to assist children in overcoming learning-inhibiting developmental immaturity.

INTRODUCTION:

- Following my appearance before the Education and Training Committee of the Victorian Parliament, which is presently conducting an *Inquiry into the suitability of current pre-service teacher training courses*; I received a letter from the Committee's Executive Officer, which began with this statement:

"On behalf of Members of the Education and Training Committee, I wish to thank you for appearing before the Committee at the public hearing on 15 November 2004. Your evidence was extremely valuable and will greatly assist the Committee in formulating its findings." (N.B. the words "extremely valuable"!)

- It is my expectation that the personnel appointed to this Commonwealth Inquiry will also find that my evidence is extremely valuable, that it will greatly assist their deliberations, and that it has the potential to lead to vastly improved rates of literacy acquisition and overall academic standards in our nation's schools.
- My submission to this Inquiry is a modified version of my earlier submission to the Victorian Inquiry; therefore, it continues my carefully considered challenge to those ill-conceived policies and unrealistic expectations of education's leadership, which, along with ill-founded academic research, perpetually misdirect the major thrust of primary education. I trust my challenge will be accepted in the same professional and generous spirit with which it is offered.
- In her message to her constituency, on ICP online: www.icponline.org Ms Nola Hambleton, president of the International Confederation of Principals writes:

"Travelling around the world in the past eighteen months, I have become fascinated, and not a little disturbed at times, by the sameness of the problems facing educationalists, and in particular those who face the students in their schools.

I say concerned because despite the rhetoric, despite the research, and despite the expertise of educational theorists, the same problems are occurring around the world."

My submission carries the only valid explanation for those problems, and provides clear signposts that will lead to their resolution. My teaching record confirms the veracity of that statement.

By way of emphasizing the credibility my challenge, I draw the attention of the Inquiry to the citation of the judges for the [redacted] a copy of which is to be found immediately after page 7 of this paper.

- The judging panel for the [redacted] was chaired by the then Director General of Education, Dr. Laurie Shears, and its members included the late Dame Margaret Blackwood, then Vice Chancellor of Melbourne University, Professor Kwong Lee Dow, then Dean of Education at Melbourne, a professor of psychology at Melbourne whose name I do not recall, Mr Geoff Maslen, education editor for the Age newspaper, and a representative of the State Schools Parents Organization.

- The citation records the fact that I was being afforded official, public and academic recognition for "***implementing an innovative and stimulating program in language development", "for inspiring leadership", and "for developing a highly successful program in literacy and numeracy".***

- Although it was swept aside by the reform initiatives of a newly elected Victorian government in 1982, with disastrous consequences for successive generations of students, that rare distinction is indelibly recorded in the history of education in Victoria.

- If there are primary school principals delivering similar outcomes today, either they are not telling anyone about their programs, or they are being ignored. On the other hand, there are unceasing expressions of alarm sounding throughout the nation and the world, in regard to the scale of learning failure in schools.

- The profound significance of my achievement lies in the fact that this work was initiated in two educationally disadvantaged schools in Melbourne's inner-northern suburbs, and brought to fulfilment in another.

- In today's terminology, Olympic Village Primary School would have been deemed to be a seriously under performing school at that time, while Fairfield North would have been deemed an under performing school before I began my tenure as its [redacted] in 1978.

- More than 55% of the students in the latter school came from migrant backgrounds, so English was their second language, and socio-economic disadvantaged was a common denominator. Whilst a very small number of children came from relatively more advantaged backgrounds, the list of parents' occupations did not include any of the professions.

- Yet in spite of those disadvantages, after just three years of having the curriculum develop according to my unique but practicable educational philosophy, an official review panel found that ***"the standard of literacy throughout the whole school is exceptionally high***".

- The scientifically supportable concepts underlying my success are therefore priceless at state, national and international levels.

- There are five key statements in the citation, on which an entirely **new approach** to every school's curriculum will need to be founded, if the learning and literacy dilemma is ever to be resolved.

- **The five key statements in the citation are:**

1. [redacted] **has encouraged the development of a curriculum at all levels with Physical Education as the central part of the program.**

2. **"The integration of academic and physical activities has resulted in an exceptionally good rate of literacy** (i.e. overall learning) **in two schools"**

3. [redacted] **has inspired his own staff, as well as teachers in other schools to incorporate physical education into all aspects of the school curriculum."**

4. **"He believes that the** (ongoing) **development of each child's basic skills of movement coordination, speech and sensory perception determines the development of language skills which are essential in the prevention of learning difficulties."**

5. [redacted] **has implemented an innovative and stimulating program in language development at all levels within** [redacted]

Those concepts are crucial to the success of any curriculum because:

- All learning, all knowledge, including the language necessary *for the workings of the mind or* ***intellect***, i.e., cognition and conceptual development, is assimilated, stored and retrieved ***in the sensory motor mechanisms of the brain***. This occurs in processes that utilize electro-chemical impulses circulating throughout the central nervous system. All knowledge therefore, is grounded in sensory motor representations (Barsalou)

- Depending on the opportunities and challenges available in a child's environment, **repetitious circulation of those electro-chemical impulses** forms ever-increasing neurological connections and ever-strengthening CNS pathways linking the sensory receptors to the brain, forms connections within the brain, and similarly connects the brain to all the body's functions.

- Even for a child fortunate enough to be enjoying ideal childhood development, the sensory motor mechanisms of the brain and central nervous system require more than eight years of uninterrupted and unhindered development to reach their optimum operational state. **An active and stimulating childhood is absolutely essential for this maturation process**.

- Unfortunately, many children suffer significant, even severe developmental delays and deficiencies throughout infancy and childhood. These delays occur because of environmental and experiential factors such as poverty induced trauma, insufficient physical activity, insufficient sensory stimulation, and

insufficient experience with language. Physical and emotional traumas are also extremely common readiness-inhibiting factors.

- Due to their resultant perceptual, motor, speech and language immaturity, these children inevitably develop learning and behaviour problems at school.

- **It is alarmingly evident that there is no attempt made to understand or correct their developmental immaturity before they are subjected to untimely teaching; and herein lays the source of all of education's woes.**

- My curriculum was founded and structured on the notion of constantly stimulating and strengthening the sensory motor mechanisms of children's brains and central nervous systems, by using gentle, persistent physical education for all, along with persistent speech training (therapy) as the means of compensating for lost developmental opportunities and challenges.

- This process was topped-off with an experience-based language development program, so that all these curriculum elements collectively prepared the way for successful teaching and learning.

- It was a relatively simple process, which over time, resolved most of the children's learning-inhibiting developmental delays and behavioural problems.

- In that direct way, the curriculum constantly brought all children to positive states of readiness for learning, thus permitting teaching and learning to proceed in a spectacularly successful fashion.

- **This natural approach is far superior to the artificial literacy teaching that is demanded by current educational policies and philosophies.**

- Because there is ample scientific literature available to support my anecdotal evidence, all teachers should be encouraged to follow suit. I therefore call on this Inquiry to recommend my concepts and strategies to the Australian Parliament as a matter of great urgency, so it may, in turn, recommend them to educational authorities and teachers, and to those responsible for teacher training and teacher education.

- Under the supervision of the Head of Education at Victoria University, **Dr. Brenda Cherednichenko**, Educational Consultant **Dr. Gordon Young**, Child Development Consultant **Margaret Sasse** and I have devised a Doctorate study entitled **NO CHILD SHOULD FAIL,** to demonstrate once again, the potency of my curriculum approach, which is dedicated to the ongoing stimulation of children's sensory motor and speech mechanisms as a precursor to all teaching programs. I have extracted Dr. Young's bibliography from the study, and placed it at the end of this document.

- As the Research Section of the Victorian Education Department has approved the study, it is hoped that funding for the project will be secured from the Commonwealth Government's Innovative Projects Initiative.

OFFICE OF THE DIRECTOR-GENERAL
EDUCATION DEPARTMENT
2 TREASURY PLACE, MELBOURNE, VIC. 3002
TELEPHONE 651 9111

[redacted]

Citation from the Judges

[redacted]

As a teacher and later as a principal, [redacted] has encouraged the development of a curriculum at all levels with Physical Education as the central part of the program. The integration of academic and physical activities has resulted in an exceptionally good rate of literacy in two schools with large migrant populations. As a result of this integrated program the interest and participation has been very high at all levels. [redacted] has inspired his own staff, as well as teachers in other schools, to incorporate physical education into all aspects of the school curriculum.

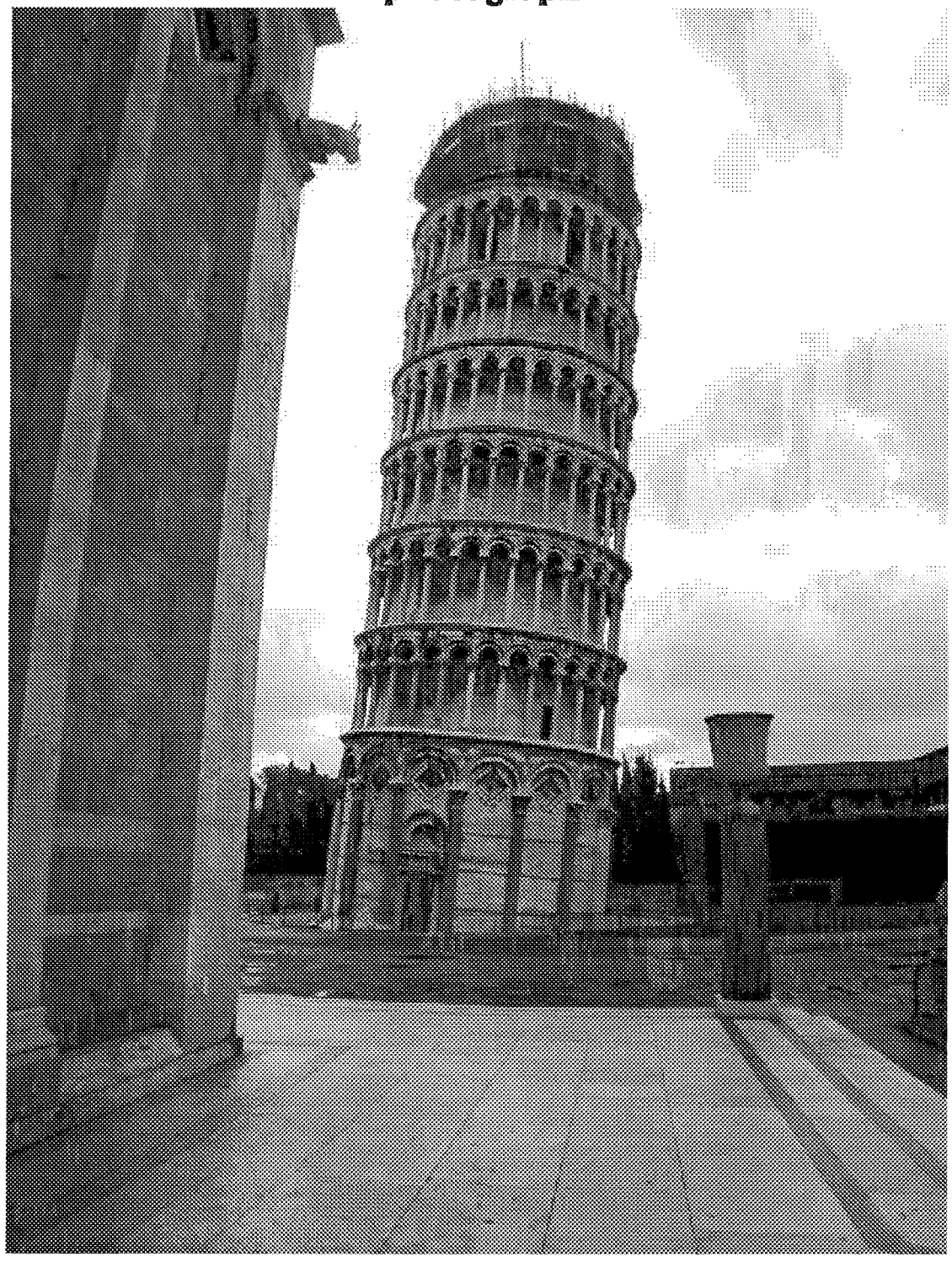
He believes that the development of each child's basic skills of movement coordination, speech, and sensory perception determines the development of language skills which are essential in the prevention of learning difficulties.

The work he began as a Senior Teacher at Olympic Village Primary School has reached an interesting climax under his guidance as Principal at [redacted]. With the cooperation of teachers, teachers aides, parents and children [redacted] has implemented a stimulating and innovative program in language development at all levels within Fairfield North Primary School.

For his inspiring leadership as a teacher and principal in his own school, and for the development of a highly successful program in literacy and numeracy [redacted] is the Committee's choice for the [redacted]

[redacted]

I shall now Proceed with My Submission By Proposing A Simple Analogy Based on this photograph



Free download from the Internet courtesy of photographer Gary Feuerstein

- **The modern system of education can be likened to the Leaning Tower of Pisa.**

- **It is a grand edifice, but like the Leaning Tower of Pisa, its foundations are laid on unstable ground.**

- **The instability of education's 'ground' is due to the universal acceptance of crippling myths, misconceptions and false assumptions about teaching and learning.**

- **I would be most surprised if you, the appointed members of this Inquiry, had not been seduced by such spurious concepts.**

- **My vision for this inquiry is, that through truly enlightened teacher education my submission will help teachers return the edifice to its intended upright position.**

- **For that to happen, your inquiry will need to stabilize the 'ground'. This can be achieved by demystifying the education process, by replacing the misconceptions with valid concepts, and by eliminating all false assumptions.**

- **Once the 'ground' is stabilized, the proper foundations can then be set in place, via teacher education based on a true understanding of teaching and its relationship to the learner.**

- **The fact that the builders of the tower attempted to make it appear straight, by building the top storey in the perpendicular, can be likened to highly selective academic research, to education reform and to remedial teaching. They are all very superficial, and cannot succeed unless the ground is stabilized.**

IDENTIFYING THE TRUTH ABOUT TEACHING AND LEARNING BY FIRST EXPOSING THE FALSEHOODS!

- The truth about teaching and learning is so challenging, yet apparently so obscure, that it permits universal acceptance of many falsehoods, the existence of which I have intimated in my analogy. I shall endeavour to identify the most harmful falsehoods before I cautiously introduce some highly pertinent concepts. I believe this approach is necessary because the truth is extremely challenging. These concepts, which are presented in statements made by trail-blazing neuroscientists and cognitive psychologists, justify everything I have done, said and written on the subject of readiness.

- As evidence of the deeply entrenched influence of the falsehoods, I shall, if required, tender copies of my earlier submissions to state and federal Ministers for Education, along with copies of ministerial replies, which demonstrate that before the advent of Dr. Brendan Nelson's Ministry, people in positions of authority have been unable to accept, or even contemplate the truth.

- Given my publicly acclaimed success, their lack of logic amazes me, but I guess it's understandable, considering that the truth contradicts the long-established mindset of the academic, education and political establishments.

- It is to be hoped that this inquiry, and ultimately the entire education community, can be persuaded to accept the startling truth, which must be revealed if education is to progress into the 21st century, unhindered by its current crop of crippling impediments.

- I paid a very heavy price in gaining the knowledge I am about to impart to you. For in my commitment to doing the job **as I was trained to do it**, the falsehoods almost cost me my life - twice. Teaching can be very destructive of a teacher's health; but as I rediscovered in the later years of my career, it can be, as it should always be, a joyful, exciting and rewarding experience. The falsehoods have created a nightmare, but a true understanding will be liberating for teachers and children – as it was in my experience.

- I bring an expectation to this inquiry, that a true understanding will have a vital impact on education– and it will have a vital impact - provided you and the education community approach it with minds that are open to the challenge. There is nothing worse for education, than having rampaging reformers taking charge, with their mindset moulded by myths, misconceptions and false assumptions, and thus firmly closed to the basic truths of teaching and learning.

- The truth will reveal that over the past few decades, pedagogically naïve administrations, directed by well meaning, but pedagogically unenlightened policy makers such as Robert Fordham with his Ministerial Papers, Donald Haywood with his Keys to Life and Early Literacy Research Project, and Dr. David Kemp with his National Literacy Survey and benchmarks, have perpetuated and intensified those falsehoods. Consequently, one ineffective

reform after another has been imposed on education, in processes that have unnecessarily, albeit unintentionally, vilified and confounded teachers.

- The 2003 Victorian Auditor General's Report titled ***"Improving literacy standards in government schools"*** gives testimony to the ineffectiveness of all previous reform initiatives.

- In the long run, a true understanding will ultimately explain why the *current* plans for an Education Revamp in Victoria will be as equally ineffective as those of their predecessors.

- No one would argue with the fact that modern education is seriously flawed and in need of correction. This inquiry would not be held otherwise. There is ample tangible evidence of academic failure and underachieving throughout the whole of the English-speaking world.

- In the United States, for instance, there is deemed to be ***a crisis in education***; but reformers there foolishly expect to remedy the situation with legislation and massive amounts of money. President Bush's ***No Child Left Behind*** legislation has appropriated tens of billions of dollars for this impossible approach.

- To expect that literacy rates and education standards can be improved by legislative decree is one of the most ludicrous myths imaginable. Yet it is one that is plainly evident in joint ministerial pronouncements of recent decades.

- A true understanding will reveal that the failings of education can only be corrected if everyone in the community, including academics, teachers in training, and parents, has a proper understanding of the required role of the teacher and the contribution of each student's development.

- The truth will reveal that a proper understanding simply requires that all stakeholders should establish valid concepts in their minds. Valid concepts do not require legislation, nor do they require massive amounts of money. The only monetary cost is that of disseminating a practical explanation of the truth.

- The truth will reveal that expecting teachers to carry the blame for education's failings is unjust and unrealistic, and is yet another myth.

- It is equally unjust and unrealistic to expect that by requiring teachers to gain higher qualifications, the failings of education will be remedied. It's another dreadful myth to suggest that this will somehow improve learning outcomes for young children.

- Enlightenment will also reveal that the title ***"teacher"*** is an unfortunate misnomer, which leads to awful misunderstandings. A far more appropriate and inspiring title is ***"facilitator of learning"***. One title's definition is as far removed from the other as the summit of Mt. Everest is removed from the depths of the ocean.

- Pity the unfortunate children, who are forced to wait every day for someone to teach them something from a pre-planned syllabus, which is designed to suit adult conceived standards or benchmarks, rather than the children!

- Celebrate for the children whose learning is inspired and guided by true facilitators!

- For twenty years I drove myself beyond endurance in my efforts to be a good 'teacher', **and was judged to be one**; but then came unexpected enlightenment, and I was transformed into a true facilitator of learning - with astonishing benefits for the children in my care, for my subordinate colleagues, and for myself.

- This Inquiry should discover that no matter how often teaching methods are revised and refined, **and no matter which methods are favoured,** they are all impotent in the face of the developmental immaturity that can be found in at least 25% of the student population; and it is the learning failure evident among that 25% of the student population that gives teachers such a bad name.

- Enlightenment will reveal that by simply learning to assist children to overcome gaps, delays and deficiencies that typically exist in their progress towards maturity, teachers can actually pre-empt learning and behaviour problems, and *then* proceed to facilitate successful learning.

- But before I venture further into this conceptual territory, I would like to address some of the misconceptions and false assumptions as well, having already brought a few myths into the light of day.

- **For that purpose, I refer you to the Emory University News Release, (inserted herein immediately after this page), which, in reporting the vital scientific findings of Cognitive Psychologist Lawrence Barsalou, reveals the awesome, challenging, startling truth:**

The theory of Cognition, an adjunct of The Psychology Theory of Learning, which underlies dominant educational philosophies, policies and educational research, is, for teaching purposes, a disastrous misconception.

It is because of that theory, that all educational policies, philosophies and research misdirect curriculum planning and teaching by focusing on the cognitive functions of the mind, while totally ignoring the physical development of the brain.

The physical development of the brain precedes cognition, therefore, relative to individual potential, it determines how well each and every child learns and achieves at school.

By presenting scientific evidence that convincingly challenges the prevailing theories of human thought, Lawrence Barsalou's research findings at last bring the critical flaws of modern education into focus.

- With this scientific evidence available, it is now possible to point out that education's major problems stem from crippling false assumptions. Although false, those assumptions are inevitably accepted as the rationale for policy development, for academic research and for reform, perpetually leading teachers away from practical solutions to learning and behaviour problems.

According to Barsalou's undeniable scientific evidence, there is:

1. A false assumption that the human brain operates somewhat like a computer, accessing bits of knowledge in its separate areas, as a computer would tap multiple data files. This is the dominant theory of cognition, an adjunct of the psychology theory of learning, because of which, it is falsely assumed that if teachers are competent, they should, with the aid of psychology theorizing, be able to provide children with the knowledge and skills they need via direct teaching, or via remedial teaching.

2. A false assumption that cognition is separate from the sensory-motor systems, with one part of the brain implementing all the higher cognitive processes that use knowledge, while other parts implement sensory perception and action.

Further to Barsalou's experimental findings there is:

- **An often-expressed false assumption that physical education has little to do with intellectual development, thus falsely indicating to teachers that they should give all their attention to promoting academic learning in the cognitive domain. Therefore, with teachers misled by inappropriate policies and academic research, subject teaching dominates the curriculum, while true physical education, or sensory motor learning, is totally ignored, with disastrous consequence for struggling students.**

- An officially stated false assumption that reading and writing *can* be taught, and therefore *must* be taught, ***as cognitive processes*** ASAP in early education.

- A false assumption that if teachers become more highly qualified and better trained to "teach", they will become more proficient in aiding cognition.

- A false assumption that children's learning success is best measured against adult conceived standards or benchmarks, which is exacerbated by a matching false assumption that large numbers of children failing to learn according to those benchmarks provides proof that poorly trained or incompetent teachers are using poorly designed teaching programs.

- A false assumption that data obtained from universal testing for standards or benchmarks will require teachers to accept the inadequacies of their teaching skills and programs, and thus improve their performance.

The Profound Implications Of The Emory Document Demonstrate The Urgent Need To Revise Educational Policies and Philosophies

According to Lawrence Barsalou ***"and a growing coalition of scientists around the world, the latest neurological data collectively demonstrate that knowledge is based in sensory motor representations, and as a result, perception, action and cognition are far from independent and share critical brain systems".***

- This finding should be a disturbing revelation to academics, curriculum planners and policy makers because it spotlights the false assumptions, **and ultimately explains why underachieving is endemic in all school systems**.

- To those who are aware, the revelation carries the profound implication that **the quality of each child's sensory motor development**, or neurological maturity, is the **primary, therefore the major determinant** of learning success.

- **It implies that the Fairfield North initiative of the late nineteen seventies and early eighties was justifiably recognized by the Victorian Government, because its success was attributable to the practice of constantly promoting children's sensory motor and speech development as a precursor to all teaching programs.**

- **It convincingly implies and confirms that children can learn successfully only if the sensory motor functions of their central nervous systems are sufficiently mature, relative to chronological age and individual potential, to allow cognition to occur satisfactorily whenever they are taught.**

- It implies that aiding children's sensory motor development must become the first consideration of all curriculum planning and all teaching programs.

- It implies that all reform processes that fail to make provision for children's sensory motor development as their first consideration, ***are doomed to failure***.

- The revelation clearly implies that the Early Literacy Research Project in Victoria was ill conceived, in that it was commissioned to find the most effective ***teaching methods*** devised by ***the best teachers in the best schools***.

- It also explains why the Early Years Strategy, which incorporates Keys to Life, Reading Recovery and benchmarking, is such an expensive and ineffective undertaking, given that it relies on the recommendations of the ELRP for its rationale, and is therefore lacking a sensory motor understanding.

- It also explains why the Victorian Auditor General's investigations found that a sum of $662m was expended on improving literacy over seven years with little measurable improvement.

AN EXTRACT FROM AN ARTICLE PUBLISHED IN THE AGE, FEB 9, 2002
(Re: Dr Greg Stuart, research fellow at ANU)

Scientist gets $2 million to study the brain and how memories are made

"If a memory leaps to mind, it's because electrical impulses sparked down certain pathways through the billions of interconnected nerve cells or neurons in your brain.
Stimulate these neurons enough times and the strength of the communication between the cells increases – a (developmental) ***process that is thought to underlie memory and learning."***

My submission is focused on the need for all primary school teachers, not just as an optional extra for individual infant teachers, to use movement and speech training, along with any other available ideas, as the means of physically stimulating those neurons, again and again and again – enough times – to increase the strength of the communication between them, at the same time assisting essential neurological organization. This is a seven-year task for the primary school.

Repetitive sensory/motor stimulation is the way to assist neurological organization and strengthen inter-cell communication for successful learning.

EXTRACT FROM AN ARTICLE PUBLISHED IN THE AGE, JAN 31, 2004
CARRYING FURTHER IMPLICATION FOR EDUCATORS

Professor (Eric) Kandel's investigations at the Howard Hughes Medical Institute at Columbia University, in New York, show brain cells involved in memory are constantly and subtly interacting with tiny physical and chemical changes accompanying every experience.

"An event happens and it leaves a trace in your head. It involves neural circuitry spread over hundreds of cells, sometimes thousands in a kind of a pattern.

And those patterns seem to be reinforced by repetition. We know that once you have experienced something, there are physical changes that occur in your brain. So next time a fleeting component of that (experience) comes to your attention, it can bring back the whole neural circuitry."

When analysed in conjunction with the Emory document, these statements add enormous weight to the proposal contained in my pilot project titled "No Child Should Fail", which is intended to once more demonstrate the potent nature of a curriculum built on sensory motor stimulation versus the curriculum based on the notion of teaching aimed solely at the cognitive functions of children's minds.

The following passages summarize the understanding I have developed, assisted by input from various sources, including widely available textbooks.

Important and Telling Comparisons

1. Sensory Motor Maturation (learning readiness) is as essential to learning as oxygen is to breathing.

When an undersea diver is deprived of an adequate oxygen supply, his intellectual functions are adversely affected so that he:

- Becomes confused and disoriented.
- Performs well below his true potential.
- Underachieves physically and intellectually.
- Displays erratic emotions, and
- Behaves abnormally.

If we make careful and informed observations of all the students in our schools, we can see that **the responses and complications are virtually identical, when all those children who are lagging in sensory motor development <u>are subjected to teaching</u>**. These are the underachievers. Their intellectual functions are adversely affected, and teaching actually causes emotional and educational harm, because as anyone can plainly see, they:

- Become confused and disoriented.
- Perform well below their true potential.
- Physically and intellectually underachieve.
- Display erratic emotions, and
- Behave abnormally.

This ***should*** tell us that lagging sensory motor development is at the centre of the learning and behaviour problems that plague our schools.

This ***should*** also tell us that we must do all we can to stimulate children's sensory motor development, for it is a matter of great urgency.

2. Remedial Teaching is as Inappropriate to Learning Failure, as Penicillin is to Viral Infection.

Doctors can only call on nature to help the body as it struggles to overcome viral infection. Just as penicillin alone is the wrong prescription for treating a virus, remedial teaching alone is the wrong prescription for treating learning failure; that's because remedial teaching attempts to remedy failed teaching. That may appear to be a pedantic statement, but it is an incisive one.

If this were fully understood, then teachers would know that they, too, might call on nature to overcome lagging sensory maturation. Ever increasing movement activity and sensory stimulation are nature's remedy for delayed movement coordination and sensory maturation, and are therefore nature's remedy for underachieving.

Here is this teacher's view of the sensory motor pathways of the central nervous system, whose ever-maturing efficiency is critical for successful learning. This is the significance of the sensory motor theory of learning.

The central nervous system is composed of billions of neurons or nerve cells. Each nerve cell functions as a message carrier. Messages travel to, from and within the brain, as electro-chemical nerve impulses. These impulses spark from neuron to neuron along established pathways, and among other things, carry all the information and knowledge received from teachers.

Within the brain, the established pathways account for all its neurological functions, including memory, and the recall of knowledge that has resulted from true learning. They are the sensory motor pathways

The established pathways leading to, and within the brain are the sensory or perceptual pathways, through which we receive communication, assimilate knowledge, learn, and store memories. The function of the sensory pathways is to connect our sensory receptors with the sensory motor functions of the brain, thus providing sensory receptiveness. The brain must organize itself to respond to the millions of impulses reaching it every second. This is a very complex developmental task, which if allowed to lag, causes unnecessary learning-inhibiting confusion.

The established pathways leading away from the brain carry instructions to all parts of the body, and include autonomous nerve impulses to the body's organs. Our movement coordination is controlled along outgoing pathways. Of extreme importance to teachers, is the fact that the outgoing pathways carry the brain's responses to sensory input. These responses in turn require feedback in the form of further sensory input.

Sensory motor maturation brings about sensory integration and movement coordination, which implies the senses working in harmony with each other and controlling the body's functions, even facilitating cognition. This is the purpose of eight and a half years of neurological development.

Nerve cells do not touch one another; communication between paired cells occurs across a microscopic gap known as the synapse, and is facilitated by microscopic protuberances, known as dendrites, and neural chemicals, known as neural transmitters. The myelin sheath surrounding each neuron plays its part in this inter-neuron communication.

In order to become fully operational and fully efficient, the neurons and neurological pathways require constant, repetitious stimulation throughout childhood. One imagines that neurological efficiency is maintained in the same way throughout life. **Movement activity and sensory input provide the stimulation for the neurons.**

With sufficient stimulation, the communicating functions of the cells become more and more efficient, the dendrites become larger and more numerous, the myelin sheath thickens and becomes more effective as insulation against interference from other sensory pathways, and the passage of the nerve impulses becomes more

efficient. **Gross and fine movements become better coordinated and the sensory perceptual processes become more accurate and more meaningful.**

It helps our understanding of the importance of intercellular communication in movement and learning, when we realize that multiple-sclerosis is an incurable disease that progressively causes tearing damage (sclerosis) to the myelin sheaths of nerve cells, causing loss of insulation, loss of coordination and ultimately fatal interruption of the body's functions.

When an individual's life style provides sufficient opportunities and challenges to stimulate neurological communication fully and successfully, that individual will have the vital ability to accurately perceive and faithfully reproduce spoken and written language. In other words, with efficient inter-cell communication, the individual will continuously develop the basic skills of learning in a manner that constitutes learning readiness, i.e. sensory receptiveness and motor responsiveness.

When an individual's life style does not provide sufficient opportunities and challenges, that individual will almost certainly have poor movement coordination, poor sensory development and poor speech. Such an individual will not be developing the basic skills of learning, will not be developing readiness for learning, and, being at risk, is almost certain to underachieve.

Poor movement coordination, poor speech skills and poor behaviour provide clear indications that the nerve impulses sparking to, from, and within a child's brain are not doing so in an efficient, ordered way, and are thus causing confusion.

The child cannot be developing optimum sensory integration and sensory perception.

Maximum achievable success in sensory motor development is absolutely essential if the individual child is to avoid learning difficulties, and is then to proceed to achieve optimum learning success at school. Optimum success for each child is relative to individual potential; it is not relative to standards or benchmarks.

The way in which teachers can best ensure maximum success in sensory motor development for every child, and therefore ensure that every child has the best opportunity to enjoy optimum learning success, is to provide a compensatory curriculum with a sensory motor basis.

In view of the scientific evidence that is being provided by neuroscientists and cognitive psychologists, it should be evident that total reliance on the Psychology Theory of Learning in policy development, curriculum planning and academic research into learning, is therefore entirely counter-productive.

The following pages contain anecdotal evidence of the success of the curriculum at Fairfield North Primary School as witnessed during 1981. The first is the official report of the Panel of Review, which investigated the school in June of that year. A Teacher Education Officer from La Trobe University compiled the Language Arts report.

Alex. S. Carter, Teacher Education Officer
La Trobe Teachers' Centre
School Review:- Fairfield North Primary School – "The Language Arts" 17 June 1981

At Fairfield North Primary School an identifiable, clear philosophy, as set down in the School Policy Statement, is evolving through the initiative and efforts of the Principal, the shared experiences and co-operation of the teachers, the teachers' aides and the children.

This philosophy has at its core a program of physical education, which is concerned with the development of the basic physical skills, i.e. those associated with physical co-ordination, sensory integration and sensory perception. This program is taken for at least a half hour daily at each of the grade levels throughout the school. In the development of the whole child such a program has a strong theoretical background, re the Developmental Tasks of Robert J. Havighurst. But such a program goes much deeper than this. Accepting the theoretical writings and experimental work of Jean Piaget, Carl Delacato and Marianne Frostig this program of physical education enables the child, amongst other things, to readily develop the ability to intellectualise through language.

It would appear that the full significance of this program, in relation to "intellectual development", is not fully understood by many of the staff, but all have whole-heartedly endorsed it and have enthusiastically put it into practice with enthusiasm, skill and patience, and are giving encouragement to the children in their care.

In order to clarify this program, perhaps a copy of "Learning Problems in the Classroom" – Frostig and Maslow: Grune & Stratton/Harcourt Brace Jovanovich, Publishers, New York, 1973 could be purchased for the school library. This book could then be used as a basis for discussion at staff conferences – for the formulation of future policy, planning and practices.

Concerning the language arts much work has been done. This indicates a great deal of resourcefulness and thought by the Principal and his staff in the planning and the operations.

In the infant rooms (Prep. To Grade II) a solid foundation is being set down stemming from the physical education program in the areas of visual perception, auditory perception, language, association, imagery, creative movement, academic skills, as well as social and emotional development. These are further developed by carefully graded classroom assignments, by living experiences, and structured situations. Here, and throughout the whole school, the emphasis is on integration. All areas of the school curriculum are seen as "exercises" in the development of language skills.

Great use is made of excursions to widen the experiences of the children. Due to the Supplementary Grants the purchase of a school bus has enabled the whole a school to participate. This has led to a widening of "their" world. Experiences thus become living experiences: ideas are developed, vocabulary enlarged, oral and written expression stimulated.

The middle school (Grades III and IV) consolidates and extends the excellent work of the infant department. Experiences are varied, and are carefully developed and evaluated.

It would appear that in all lessons concepts are established and clarified through language. Words are constantly defined, meanings refined and made more explicit. Here and in the upper school, the dictionary is readily available. The children know how to use it and they use it frequently.

The upper school (Grades V and VI) appears to be over concerned with consolidation. Perhaps this is necessary, but it is felt that in this section the children could be extended much further. Apart from excursions, there appears to be too much emphasis on books for stimulus material. It is suggested that audio and audio-visual material could be used to great advantage. Much from the media could be used, also. For reference, the C & R publication "Children & Media By Anthony Munro offers an approach that is stimulating, is related to everyday living, and can be extended by the imaginative teacher. Even though some of the teachers are aware of this rich source very little appears to have been done so far.

Considering the nature of the school population: cottage children (8), a total migrant population of 55.73%, and a mobility of 14% in transfers and 9% out transfers, the standard of literacy throughout the whole school is exceptionally high.

In the infant rooms the children are given the skills, which enable them to "attack" words. Grounding in phonics, a part of the language experience approach is stressed.

All the class teachers keep detailed records of children's progress. Testing is extensive, and all the grades are divided into reading ability groups. A worthwhile feature of the school is the Special Assistance Program. Here, children with special reading-language problems are tested and recommendations are made to the various class teachers. This program is most comprehensive and thorough.

Use is made of the sequential reading scheme. It is well organized and set up throughout the school. The main sets of readers are: - "Young Australia". "Reader's Digest", "Endeavour, "Core Library", "Scott Foresman", as well as "S.R.A." and "B.R.S."

Perhaps the purchase of a Reading Rate Controller and a Tachistoscope could also be use to further stimulate and improve performance.

To further help the teachers a child migrant centre has been established to give those children with language difficulties additional assistance.

It is felt that in the middle and upper sections of the school the reading enrichment areas need attention. It is suggested that class teachers keep records of the library books, which the children borrow and read. These books could be used for further discussion and development. It is pleasing to note that serial reading by teachers is evident. In this day of "electronic entertainment" it is vital that children are encouraged to read other than their "school" books.

Attention is given to oral and written expression. Children are encouraged, not only to write, but also to talk about their experiences. Much of this is related to their excursions. The written expression is simple, direct and of a high quality. Ideas flow from sentence to sentence: the meaning is clear. In the middle and upper school the written expression could be extended to verse writing. The free use of blank verse is an excellent means of facilitating and clarifying ideas, and of selecting words to convey the best possible meaning. As an aid to written expression grammar is taught throughout the middle and upper school. Emphasis is placed on correct word usage and on sentence construction: the approach being on synthesis rather than analysis. Dictation is also used to reinforce sentence construction, word usage and correct spelling.

Great care is taken with the mechanics of writing. Writing patterns and letter formation are stressed. Children are taught to hold their pens and pencils correctly, and even at Grade V level emphasis is placed on posture. Recorded work is neat and tidy. Samples, on display throughout the rooms, are excellent.

Photographic facilities are available in the school. These are used mainly as an inspiration for the language activities resulting from excursions. It is felt that greater use could be made of the medium. Through it children could be given the basics of visual literacy – an area, which apart from artwork and picture discussions, is virtually neglected. (Also, see the comments above, concerning the media program).

Fairfield North Primary School is a busy, happy establishment. Pleasant friendly teachers and pupils display courtesy and interest towards each other. It is evident that the teachers have gained the full confidence and respect of the pupils. This is certainly reflected in the work produced.

In Summary:-

As stated above the standard of literacy throughout Fairfield North Primary School is exceptionally high. A whole body of theoretical and experimental evidence would suggest that the influence of the Physical education program is the major causative factor. **But it is not the only factor operating here.**
Others are as follows:

1. The school is well equipped: aids, pictures, library and readers.
2. Staff members are dedicated.
3. The principal is and active and guiding figure.
4. The class numbers are relatively small.
5. Children are tested and graded at regular intervals.
6. The atmosphere of the school fosters security and encourages learning.
7. Excursions are an integral part of school life.
8. Profitable use of teachers' aides in the areas of language arts and physical education.
9. The child migrant centre.

All are making their contribution.

Transcript of a report published in the **Age** newspaper October 2nd 1981

Rhythm rules the school at Fairfield North - by GEOFF MASLEN Education editor.

The little people who inhabit the big red schoolhouse at Fairfield North are on the move.

A Pied Piper has led them to music and rhythm, dance and disco. Every day the children twirl and tumble, roll and sway, climb and run. They use their arms and their legs, their eyes and their tongues.

"La, la, la" the children say, "Lee, lee, loo; da, da, dee." Practising, practising, eye and hand, ear and tongue, brain and body. "Coordination is the key to learning," the Pied Piper says. He is the [redacted] of Fairfield North Primary School, [redacted] He believes he has found the key to transforming children's lives.

The children read and write, paint and draw with a proficiency that belies their years. Grade 2 children have language skills a secondary student might envy. Tests show that most of the children have reading ages far beyond their years.

We don't have 'problem children' and we don't have difficulty with discipline – the kids discipline themselves," [redacted] says. This is a remarkable claim for an inner-city 'disadvantaged' school with more than half the children coming from migrant homes, many from single parent homes or broken families and others who are "cottage kids".

It took [redacted] twenty years to make his discovery and it was so simple he wonders why he never thought of it before. "Kids learn when they feel good about themselves, when they are physically co-ordinated and their senses are integrated," he says.

From prep to grade 6, the children have at least half an hour of physical education a day to make them more adept, more alert, more alive. A school bus takes them out on excursions and when they come back they draw and talk and write about what they have seen. "Our children learn (*to read*) by using the speech they know, not the 'foreign' language of programmed readers. Reading comes to them as naturally as learning to talk" [redacted] said.

The Minister for Education, Mr Hunt, recently visited the school. He thinks it is one of the best in Victoria. So do the children and the teachers. So does [redacted]

For his leadership, his dynamic innovatory approach" [redacted] is the Northern Region nomination for the Teacher of the Year Award. The Award is for the teacher who has made an outstanding contribution to education.

Compare this anecdotal evidence with the findings of Hill and Crevola, who, in their ELRP virtually declared that this sort of success is not possible in disadvantaged schools.

THE FOLLOWING SUMMARY IS BASED ON A FORMAL STATEMENT I MADE TO THE VICTORIAN PARLIAMENT'S EDUCATION AND TRAINING COMMITTEE ON 15 NOVEMBER 2004:

- In the later years of my teaching career, I discovered that the major thrust of primary education is seriously misdirected, and in the process of making that discovery, I uncovered a line of reasoning that enabled me to facilitate unprecedented learning success among educationally disadvantaged children. That line of reasoning has implications for all teachers because all teachers work with underachievers.

- In light of my teaching experiences and the nature of the ongoing public debate, it is my contention that contemporary teacher education unwittingly perpetuates a serious gap in teachers' knowledge about the way learning is assimilated, stored and retrieved by children's brains.

- It is therefore my further contention that this knowledge gap severely inhibits the education of vast numbers of children in our schools, leading to an unceasing public outcry and never-ending attempts to reform education, with most emphasis on literacy teaching.

- The publicly acclaimed success of my whole-school curriculum program was due to the implementation of a logical strategy, which enabled me to guide teachers in such a way that they virtually eliminated underachieving from my school.

- Of profound significance to this Inquiry, is the fact that the operative concepts in my logical strategy were **not** made available to me in my pre-service or in-service education. In so far as I have been able to examine curriculum materials, policy documents, statements by academics, and official media releases, these concepts are still nowhere to be seen.

- Therefore, with all the conviction I can muster, I declare that the same logical strategy is urgently needed in schools for present and future generations of students. This is because unacceptable numbers of children continue to underachieve unnecessarily due to the fact that policy makers, academics and teachers do not have an effective understanding of the dynamics of children's developmental readiness for learning.

- Learning readiness, or more precisely, the rate and success of the ongoing development of neurological connections in children's brains, IS THE MAJOR DETERMINANT OF LEARNING SUCCESS FOR EACH AND EVERY CHILD.

- It is a natural maturation process, which, if sufficiently successful, provides for increasingly efficient sensory receptiveness and motor responsiveness in learning. This process occurs in every child, and is the basis of all learning. The individual child's environment determines the success rate of neurological development.

- All of which means that teaching is a secondary determinant of learning success, and that in turn means that teachers and their methods are at the mercy of their pupils' neurological and intellectual development. If the maturation process is not sufficiently advanced to allow academic learning to occur, an individual child underachieves. And as you know, there are lots of underachieving individuals in our schools.

- If closely examined, a working understanding of learning readiness will tell you that successful learners, i.e. those who respond WELL to teaching, are those who are always physically, emotionally, neurologically and intellectually ready to benefit fully from any learning opportunity, including the learning opportunities provided by teachers.

- Conversely, the same understanding will tell you that children who are lagging in their sensory motor development are unable to learn successfully according to their individual potential. Put that another way – and it will tell you that the most severely affected children cannot be taught successfully.

- Depending upon the severity of their developmental delays and/or deficiencies, such children either fail to learn, or at best, underachieve - and then misbehave. Those outcomes are inevitable; for as I found in extremely difficult teaching situations, there is nothing teachers can do to prevent them happening - unless they learn to develop curricula with the initial focus on the promotion of sensory motor and speech development.

- That's what I did without any assistance from within the system, and that's why my school's exceptionally high rates of literacy acquisition attracted so much attention in the early nineteen eighties. Children can and must be brought to a state of readiness before they can be expected to benefit from any teaching.

- In reality, this means that all efforts to raise the competence of teachers, especially in so-called under performing schools, are futile – a waste of time, effort and resources.

- What we have at the moment is an education system wherein official policy demands that teachers impose "literacy teaching" on all children in the early years, without consideration being given to the fact that there are many, many children whose brains have not developed sufficient neurological connections to allow them to undertake academic learning successfully.

- Successful academic learning, like any other learning, produces permanent **physical and chemical** changes in the brain – whereas spurious learning is temporary - it fades very quickly.

- Much of what passes for learning success in the early years is actually spurious learning – it fades because it is not built on the solid foundation of readiness.

- We have an education system wherein policy makers blithely expect at least **25 –30%** of the student population to experience **initial** failure through premature literacy teaching, and who acknowledge that expectation by setting a one on one remedial teaching program in place, and calling it Reading Recovery – i.e. recovery from initial failure. This is a strategy that cannot possibly cope with the enormity of the problem the system itself has created, and continues to create.

- No child should ***ever*** be exposed to failure. Yet to add to their injury and their misery, repeated testing for benchmarks cruelly reinforces initial failure for tens of thousands of children.

- Even in its present form, my submission has the potential to place our entire education system on the right path to produce optimum learning success for all students. Optimum success, of course, is the maximum learning success achievable by any individual. Teaching alone can never produce optimum learning success.

- Without credence being given immediately and urgently to this work, our education system will continue to flounder in the quagmire of its own making, and children will continue to suffer as its victims.

- Therefore, on the strength of my enlightening experiences, and the success of my particular curriculum approach, I have no hesitation in saying that if this work does not receive urgent and ongoing attention, the current Inquiry into Literacy Teaching, like all its predecessors in attempted reform, will do little more than stir up the sediment in the quagmire, which of course, will obscure the true solution to the learning and literacy dilemma.

- I'll now conclude this statement by asking you to view a segment copied from the ABC's Science Program "Catalyst", and point out that education's major problems could have been resolved twenty three years ago, but they weren't, so our education system is now twenty-three years behind where it should be – that's twenty three years and counting!

- ***The "Catalyst" video segment presents Baroness Susan Greenfield, a leading neuroscientist and Oxford University professor, who, with the aid of graphics, explains how the connections between nerve cells can be stimulated to increase the learning efficiency of the brain. That was the basis of my work all those years ago. Her presentation was aimed at teachers, so it is highly pertinent to my submission and the investigations of this committee.***

- ***The "Catalyst" video segment is followed by another two segments, one, a segment copied from Channel 9's "A Current Affair" featuring a Special School in Brisbane, which is transforming the lives of autistic children using the same strategies as mine. The other is a "Catalyst" segment depicting a man who was blinded at three, and whose sight was restored with stem cell technology, but whose visual perceptions remain exceedingly immature because of missed development opportunities in early childhood.***

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Submission No. [redacted]

Attention [redacted]: Reference [redacted]

Dear [redacted],

Thank you for your letter dated 9 March 2005, with attached Submission Guidelines.

I am able to inform you that I had referred to those guidelines before compiling my submission, therefore I had accepted them, and believe my document complies with them in every way.

In my document's introductory statement, I referred to my earlier submission to the ***Inquiry into the suitability of current pre-service teacher training courses***, then being conducted by the Education and Training Committee of the Victorian Parliament.

I wish to draw the attention of this Committee of Inquiry to pp 130 - 132 of Report tabled in the Victorian Parliament on 28 February 2005 by the above named Committee. (pp 174 - 176 of the PDF version of the report).

After recording a brief summary of my submission, the Victorian Parliamentary Committee presents a number of findings the first of which states: ***"It is clear to the Committee that the education and training community cannot afford to ignore the serious challenges facing teachers and teacher education raised in this and the previous section".***

I hope the Victorian Committee's findings in relation to my submission will be informative.

Also in my submission I referred to Cognitive Psychologist Lawrence W. Barsalou. A visit to Dr. Barsaolu's website reveals exciting scientific evidence which can be directly linked to my submission. http://userwww.service.emory.edu/~barsalou/index
As stated in my submission, Barsalou's Research findings carry profound implications for this Committee and for Education, particularly in relation to learning and literacy. Barsalou's research exposes the serious error contained in the Theory of Cognition, which dominates educational thinking, and which therefore causes the major thrust of primary education to be focused on cognition as a function of the brain that develops independently of the sensory motor systems.

As a supplement to my submission, I am attaching herewith, two related documents, which I believe will further assist the Committee's deliberations.

This personal submission was delivered to [redacted] in January 2002, as part of my ongoing mission to inform educational leaders of the urgent need for schools to cater unceasingly for children's developmental readiness for learning - as a precursor to all curriculum programs.

Yours sincerely,

[redacted]

[redacted]

16 January 2002

To: Hon. Dr. Brendan Nelson M.P.
Minister for Education, Science and Training
House of Representatives
Parliament House CANBERRA 2600

Dear Dr. Nelson,

Because of my unceasing concern for our much troubled education system, I am again offering the practicable concepts that enabled me to override the educationally damaging effects of disadvantage, and facilitate exceptionally high standards of literacy among underprivileged children*.

1. Long-term teaching in economically and socially depressed communities had taught me, that **in most cases, underachieving occurs when a child's "basic learning infrastructure" is not maturing as nature intends.** This refers to the developing **sensory** functions of the central nervous system, which are intended by nature to be dependent upon environmental input. **All learning is assimilated through the senses, so good sensory development is essential for learning success.**

2. Sensory maturation is an end function of neurological organization. **An impoverished environment is not conducive to successful maturation, nor is an inactive lifestyle or emotional trauma;** so every teacher should know how to use the curriculum to facilitate functional sensory development. It can be done, and it must be done as the number one priority, because all too many children are lagging in the process. Teaching per se can't really help affected children, because sensory maturation is the major determinant of learning success.

3. **Illiteracy is just one of the many problems generated by deficiencies in children's sensory development – it is not necessarily a failure attributable to teaching, nor is it a measure of any child's intelligence**. If, as they always do, educators rely solely on improving teaching methods, illiteracy will continue to sweep through our schools with each successive generation of students, and underachievers always remain underachievers.

4. Equipped with these vital concepts, **I adapted my whole-school curriculum to accelerate the functional sensory development of all children.** Resultant learning outcomes were so outstanding that I received public acclaim. Ironically, that success was only seen as "teaching" success, and I was credited with developing a highly successful program in literacy and numeracy. (See attached citation for the [redacted]) It was **learning**

success, made possible by good sensory development. Of course, learning success is teaching success.

5. For want of a better title, **it might be preferable to refer to the concept as "using sensory/motor therapy as an every-day teaching tool".** If it is therapy, it is oh so easy for any teacher to perform. What ever it may be called, **it presents the real solution to the learning and literacy puzzle.**

The background to my acquisition of knowledge about sensory development

In retrospect, I can say that throughout my early years of teaching, like all teachers today, I was unable to properly address the problem of unsuccessful students. Fortuitously, whilst teaching in one of Melbourne's most notoriously underachieving schools, I found inspiration through a set of most unusual circumstances. I had become dangerously ill with severe thyrotoxicosis and hospitalised for surgery. I returned to teach a large fourth grade at the beginning of a new school year, and was naturally determined to protect my throat, my newfound health and my wonderful feelings of well being, from the stress of teaching in such a place.

I intuitively adopted two basic survival strategies, and the outcomes were as unexpected as they were astonishing.

- The children stopped misbehaving, no longer in need of imposed control.
- They became actively and happily involved in the curriculum.
- **Responding to my teaching**, **they became enthusiastic achievers.**
- **In the space of one school year they went on to become wonderfully literate compared with their peers in the same school.**

My initial strategy was designed to burn off the boundless negative energy that children in such schools typically unleash for their dreadful and often violent behaviour. With each burst of disruptive behaviour, **I persisted in leading my thirty-seven fourth graders in thirty to forty seconds of orchestrated movement and controlled breathing.** At the beginning, this might have had to be done twenty times a day, but I was determined, and surprisingly, **the strategy settled into a safe, secure and enjoyable routine; what's more it actually made discipline superfluous.**

Best of all, I later learned with some research, that all that movement had had a positive **impact on the children's movement coordination, which, in turn had had an enormous impact on their previously immature sensory processes and their emotions**. Children once confused by being taught, at last made sense of what was happening in the classroom.

My other basic strategy concerned speech. I had also reasoned that those fourth-graders would never become literate while their spoken language remained poor, so **I had instituted a daily speech-training program as the foundation stone on which to build the curriculum.** As became evident later, this also had a dramatic impact on sensory development, as could be seen in the learning product, especially art work.

I had discovered for myself the true path to "teaching" success, in that I learned **how to assist children to hasten and enrich the development of the basic skills of learning. These skills are to be found in movement coordination, sensory maturation and speech development.**

All the necessary theoretical and experimental data to support my very basic practices are to be found in the works of the sensory/motor practitioners, such as Kephart, Marianne Frostig, Jean Ayres, Glen Doman and Carl Delacato.

Yours sincerely,

[redacted]

Bibliography

Human Neurological Organization
Edward B. Le Winn B.S, M.D., F.A.C.P

Published in 1969 by Charles C. Thomas, Bannerston House, Springfield, Illinois
Library of Congress Catalogue Card Number 68-29679

Although essentially a medical text, this book describes Human Neurological Organization in terms that have great relevance for educators struggling to understand illiteracy and learning failure in general. The link between economic and social disadvantage and learning failure is clearly stated.

For instance – Chapter 1 p.16 "In essence *neurological organization is the process whereby the organism, subject to environmental forces, achieves the potential inherent in its genetic endowments."*

Chapter 2 p. 19 "GENETIC AND ENVIRONMENTAL FACTORS interweave to form the fabric of neurological organization. The pattern of the fabric is seen in the behaviour of the organism."

P. 22 "The environment determines the extent to which this potential will be achieved" and "Conversely, in the absence of appropriate and adequate environmental demand and opportunity, the organism's genetically determined adaptiveness and its ability to learn may be essentially without value and its potential unrealised."

P.25. "To the extent that the qualities of his inheritance are good, that they are not impaired by disease or trauma, and that they meet challenges which are sufficient in their variety, frequency, intensity and duration while the infant is given ample opportunity to

respond and, in fact to seek those challenges which satisfy his own biological individuality – to that extent will his adaptiveness and learning ability mature and become effective. To that extent will the child be able to survive and live successfully in his culture and society."

P.S.

If you are unable to obtain a copy of this text, I will gladly make mine available on loan to you personally via Greg Hunt.

A PERSONAL SUBMISSION TO HON. DR. BRENDAN NELSON M.P, FEDERAL MINISTER FOR EDUCATION, SCIENCE AND TRAINING

FROM [redacted]

SUBJECT:

USING SENSORY/MOTOR THERAPY AS AN EVERY-DAY TEACHING TOOL - THE PROVEN, YET UNREALIZED SOLUTION TO THE LITERACY PUZZLE

- ***Academic failure occurs when a child's basic learning infrastructure, the central nervous system, is not maturing as nature intends. Good sensory development is dependent upon environmental factors, and is essential for learning success. Success is relative to individual potential.***

- ***It is physically impossible for children to learn successfully without readiness, no matter who teaches them. Inadequate readiness is the cause of learning and behaviour problems for the many children who are underachievers in our schools; i.e. all those children who do not learn according to their potential.***

- ***Therefore, when capable children fail to become functionally literate before leaving the primary school, their failure can be directly attributed to inferior sensory development.***

- ***Our education system has no established processes for identifying, assessing or correcting faulty readiness development; and that is why underachieving, as manifested by illiteracy, is so predominant.***

- ***Once the nature of readiness is understood, it becomes a relatively simple matter to facilitate its long-term development by using simple sensory/motor therapy as a daily teaching tool, and thereby ensure success that is relative to the learning capacity of the individual child.***

SENSORY MATURATION, I.E.LEARNING READINESS, IS THE MAJOR DETERMINANT OF LEARNING SUCCESS.

If it is ever to be eliminated from our schools, illiteracy must be recognized for what it is, and so too, must the remainder of the following propositions be universally accepted and acted upon:

- Illiteracy is but one manifestation of the phenomenon of underachieving that is institutionalised in schools because educators fail to grasp the full significance of the most elementary maxim of teaching. This maxim tells us that children cannot learn successfully without adequate readiness.

- Readiness is another way of saying that a child is achieving sensory maturation commensurate with chronological age.

- Misbehaviour is another manifestation of underachieving; and it exists for exactly the same reason. Underachieving and misbehaviour go hand in hand.

- Institutionalised underachieving has a disastrous impact on the behaviour and attitudes of the individual. A child can be a serious underachiever even if his or her results are exceeding predetermined benchmarks.

- Illiteracy and misbehaviour are the most tangible symptoms of underachieving, and like the symptoms of a disease, they will not decline unless the causative condition is remedied. It is far more beneficial to treat the disease than to focus entirely on the symptoms.

- The widespread underachieving that is characteristic of all school systems is directly responsible for the stress that is so destructive of teachers' lives, aided and abetted as it is by draconian strategies imposed on the system in response to community concerns about literacy.

- By using simple sensory/motor therapy as a teaching tool, it is possible to resolve the bulk of the literacy and behaviour problems that weigh so heavily on teachers.

- It must also be recognized that learning achievement cannot be meaningfully interpreted in terms of adult conceived standards. Notions of standards or benchmarks mislead and misdirect teachers' efforts, because academic learning can only be correctly interpreted for teaching purposes, if measured against the recognizable learning potential of the individual being assessed.

- Unless the rate of learning clearly reflects that potential, it must be accepted that the individual is underachieving. Direct teaching of subject matter will not overcome underachieving, nor will remedial teaching.

When children achieve, or conversely underachieve, they do so in terms of their individual learning potential. Underachieving occurs because teaching, as everyone expects it to be carried out, cannot fully succeed in situations where children are lagging in sensory or learning readiness development. This is because learning readiness is the primary and major determinant of teaching success and learning success.

The preparatory year was introduced into the school system so that children could have a full year of preparation for the learning to come. It was not intended to be a year of functional literacy acquisition. Surely that indicates a one-time awareness of the importance of readiness. Children should not be regarded as remedial cases if they are not reading efficiently by the time they enter grade one. Reading is not the be-all and end-all of curriculum success.

Because readiness involves the total development of the child, it is necessary to consider every aspect of physical, emotional, social and aesthetic development, not only intellectual development, when attempting to understand underachieving. So careful and informed observation will reveal that all those children who learn successfully and happily at school are the ones who are fortunate enough to be achieving satisfactory levels of sensory development– i.e. they are developing levels of readiness commensurate with chronological age and individual intellectual potential – and they are doing so WITHOUT deliberate curriculum assistance.

Careful and informed observation of capable yet illiterate or semi-literate children will reveal that the one thing they all have in common, is that they are lagging in their learning readiness development. There will be no exceptions found to this. Therefore, if underachieving is to be eliminated, and all capable children enabled to learn and to become functionally literate in an exciting and enjoyable way, then all current and future generations of school students must receive deliberate and persistent curriculum assistance for their ongoing development of learning readiness.

This assistance is absolutely imperative, because natural law decrees that children must achieve a certain amount of readiness in order to successfully learn any particular thing, or to develop any particular skill. For example, infants only learn to walk and talk AFTER they have successfully passed through a well-defined developmental process, i.e. when they are ready to learn to walk and talk. Precisely the same statement can be made about learning to read, write, spell and develop mathematical abilities.

Nature makes provision for learning readiness to develop in all childhood activities. The most important developments should occur in active play and in active communication with parents, families and playmates. If these developments do not occur with sufficient success, then teachers should be fully prepared with a compensatory curriculum strategy - otherwise children so affected are doomed to underachieve.

Readiness does not simply occur at any given moment, nor can readiness development be said to be complete before the end of the primary school years.

Significantly, an enormous number of children do not develop sufficient levels or quality of readiness for learning at school, because their lives are lacking sufficient quantities and varieties of active play and other important readiness factors. So unless the curriculum is utilized to promote that all important readiness development, the same proportion of the student population will always underachieve, no matter how well organized or how intensive the teaching and testing programs may become. In spite of any gains that might be made through direct teaching and remedial teaching, underachievers will remain underachievers – and underachievers will continue to misbehave.

The fact that children cannot successfully learn any particular thing, or develop any particular skill, until they become ready to do so, provides the complete explanation for underachieving, and therefore provides the complete explanation for illiteracy. This should be particularly evident in disadvantaged schools, where there are so many children whose lives contain limited developmental opportunities, and where so many of them are victims of unrelieved physical and emotional trauma. Trauma both prevents and destroys readiness.

The statement immediately above also provides the explanation as to why the untimely teaching of reading and writing to children who are seriously lagging in their readiness development is not just a waste of time, but why it is a process that does untold psychological and educational harm to those children. Those children must receive assistance with their readiness, before and while they are being taught.

Unfortunately, our entire education system fails to take this into account, as was the case with the Early Literacy Research Program, which was commissioned to find and trial the most effective teaching methods used by the best teachers. But as the researchers discovered, even the best, most highly organized and supported teaching cannot succeed among disadvantaged children. It should be obvious to everyone that such children are lagging in readiness. But of course, it is not at all obvious to the vast majority of teachers and their critics, and so underachieving remains institutionalised.

SOME IMPORTANT CONSIDERATIONS FOR DEFINING READINESS

Q. What sort of learning occurs at school?

- Learning at school can take many forms – it can be physical learning, emotional learning, attitudinal learning, social learning and/or intellectual learning. It can be

positive learning, which is good, or negative learning, which is not good. Whatever form of learning it may be, true human learning is a process that produces a permanent change in the being of a human being. As teachers, we want that change in being to produce and enhance positive learning, i.e. we want to facilitate physical, intellectual, emotional, attitudinal, social and aesthetic growth and development commensurate with chronological age and individual potential. Intellectual learning cannot be isolated from other forms of learning, especially physical learning.

Q. How does academic learning occur?

- All learning is assimilated through the senses as an integral element of intellectual activity. Sensory development, which is vital for intellectual learning, is a long-term process of physical learning; and this should be a matter of great concern and compulsory study for teachers.

Q. What constitutes learning success in the classroom?

- Every child comes to school with his or her own subjectively assessable individual potential for learning and achievement. The assessment of that potential can fall into relatively broad bands. A child might be a potentially low achiever, a potentially average achiever or a potentially high achiever. Any level of learning or achievement that reflects that individual learning potential, constitutes learning success. Children cannot overachieve, although they might surprise us when they reveal their true potential, however, they can certainly underachieve in terms of that same potential**.**

Q. What constitutes underachieving?

- Any rate or level of learning or achievement that falls below that subjectively assessed learning potential must be viewed as underachieving. A child may have the potential to be a high achiever, but if that child operates as an average achiever, or learns and achieves only at the level of "acceptable standards", then that child is underachieving. Yet according to official benchmark policy, that child's learning achievement would be acceptable as true success. That is highly offensive, and constitutes institutional negligence.

- Children handicapped by clinically diagnosable intellectual disabilities may well achieve according to their limited potential, so they cannot be described as underachievers – unless unwisely assessed in terms of useless benchmarks. The vast majority of underachievers in our schools do not have intellectual disabilities, but they are deficient in learning readiness.

Q. What is learning readiness?

- **Learning readiness is a multifaceted aspect of childhood development, which has its foundations in movement coordination, sensory maturation and the development and mastery of speech.**

- **Sensory development is the very essence of learning readiness.**

- **Everything that is learned is assimilated through the senses as an integral aspect of intellectual activity.**

- **It is not possible for the learner to properly intellectualise any learning unless it is passed efficiently from the sensory receptors such as the eyes and the ears, along the sensory pathways of the central nervous system as electro-chemical messages, to and within the relevant areas of the brain.**

- **The sensory pathways are the perceptual or learning pathways.**

- **A lag in sensory development means inefficient neurological connections, resulting in confusion for the learner, and therefore underachieving.**

Q. How is sensory development achieved?

- **Sensory development is an integral part of the childhood development that commences in the womb, in that sensory processing is the function of the central nervous system, the structure of which is laid down during pregnancy.**

- **Before and beyond birth, sensory development occurs directly as a result of physical activity and sensory input. The more frequent, the more varied and the more meaningful that physical activity and sensory input can be, particularly music and the spoken language of others, the more accurate the sensory perceptions become. The more accurate the perceptions, the greater the readiness and the greater the likelihood of learning success.**

- **Obviously then, the ultimate development and fine-tuning of the functions of the central nervous system mostly occur beyond birth and throughout childhood, and that includes all the years that children are at school.**

- **There are three basic functions of the central nervous system that concern teachers:**
    1. **Control of gross and fine muscular activity, i.e. movement coordination, including the all important speech mechanisms, and muscles used in handwriting, in science and maths projects, and in art.**

2. **Sensory maturation, i.e. sensory integration and sensory perception, which provide the child with the ability to perceive and reproduce spoken and written language.**
3. **Intellectual activity, which is entirely dependent upon sensory input.**

The development and functions of all these aspects of neurological development are interrelated and interdependent, and it is the quality of these developments that should concern teachers. The quality of the development equals the quality of learning readiness. The quality of the learning readiness determines the effectiveness of the teaching and therefore the quality of the learning.

Q. Can deficiencies in sensory development be remedied in the classroom?

- **Yes, most definitely. In fact, it is absolutely essential that sensory deficiencies be remedied.**

The primary school curriculum can be made to have an enormous impact on the quality of the learning readiness of every child. For maximum impact, specific curriculum activities designed to facilitate movement coordination, speech and perceptual development, i.e. learning readiness, should be carried out during every day of the seven years that children spend in the primary school.

The fact that the primary school curriculum is not used to this effect is the major reason why underachieving, illiteracy and misbehaviour remain the scourges of every education system. This explains why all attempts to improve and intensify teaching methods bear little or no fruit with underachievers, and are so harmful to teachers.

Q. What are the recognizable attributes of learning readiness?

Relative to chronological age and individual potential, children who are developing a healthy state of learning readiness display the following attributes.

- **They have a good command of spoken language, and produce good clear speech, with excellent coordination of the speech producing mechanisms.**
- **They constantly enjoy a broad range of experiences with good language models, stories, rhymes and songs.**
- **They are able to use spoken language to express themselves freely and creatively in conversation, drama and singing.**
- **They are able to verbalize learning experiences and to solve problems using language.**

Just as importantly from a curriculum perspective, children who are acquiring a healthy state of learning readiness will also display the following attributes.

- **Commensurate with chronological age, they possess and utilize adequate to good movement coordination and balance, displaying good hand/eye and**

good foot/eye coordination. They are able to complete physical learning tasks with ease and acceptability, e.g. handwriting, art and craft projects, maths, science and social studies projects.

- **They possess and utilize good sensory processing abilities, with accurate visual, and auditory perceptions; this perceptual ability includes well-developed short-term and long-term memory. Their perceptual abilities will shine in their artistic expression.**
- **They possess real self-confidence and a worthwhile degree of self-knowledge.**
- **They possess genuine self-esteem, a wonderful and natural product of successful childhood development.**
- **They display awareness of space and know how to use it, including awareness that others need space and have a right to space too. <u>This is an important foundation for social awareness and the establishment of relationships. This awareness is also vital for their teenage years when they begin to drive motor vehicles.</u>**

As a result of ongoing success in their childhood development, these children have emotional stability, which means positive attitudes and happy dispositions. Such children are usually well behaved, unless they are permitted to underachieve by virtue of a poor curriculum, and are enthusiastic cooperative learners who nearly always show a good learning product, with good handwriting and general neatness. These children learn to read without difficulty, can become good spellers, can develop good mathematical skills, and they can use their developing skills to become independent learners. They even manage to cope with poor teaching and poor curricula for short periods.

Children who are lagging in readiness development do not display these attributes in good measure; in fact, they <u>immediately</u>, <u>increasingly</u> and <u>continuously</u> display indicators that are at variance with the attributes noted above, making the teaching and learning tasks very difficult indeed.

The path to success in teaching is to be found in knowing how to use the curriculum to help all children to develop, enhance and display the positive attributes of readiness.

Poor behaviour, poor movement coordination - as typified by poor handwriting, poor speech and/or limited vocabulary are the most visible signs of learning readiness problems, as they provide a clear indication of deficiencies in sensory development.

Poor movement coordination is not a matter of muscular weakness - it is an indication that messages from the brain are not reaching target muscles as perfectly as they should. Most importantly in terms of learning readiness, poor coordination provides a telling indication that messages from the sensory receptors are not reaching the brain as efficiently as they **should. Poor speech habits also provide a clear indication that a child's auditory and visual perceptions are poorly developed.**

Children who are seriously lagging in their vital sensory development are clearly identifiable because:

- **They are easily frustrated, - they have poor concentration, - they can be mistakenly diagnosed as having Attention Deficit Disorder, - they can be mistakenly labelled lazy or even unintelligent.**
- **They can be quick to anger – in fact they are easily enraged and will often throw tantrums.**
- **They can develop negative attitudes and be known for sulking.**

Above all, they will compensate for their sensory confusion with inappropriate behaviour such as:

- **Clowning around**
- **Causing conflict,**
- **Dropping things**
- **Losing things**
- **Making strange noises.**
- **Distracting others.**
- **Disrupting lessons and more, especially if they are traumatized elsewhere.**
- **Bullying**

If they are otherwise intelligent children their behaviour can be easily misconstrued so that they are unjustly disciplined. Discipline compounds their problems, and even the so-called enlightened discipline procedures will do little to aid or promote that vital sensory development.

By teaching themselves how to cater for children's learning readiness, i.e. by persistently facilitating children's movement coordination and speech development, teachers can overcome the bulk of the problems they face in terms of underachieving and misbehaviour, because they will be continuously facilitating children's sensory development as they do so. Above all they will empower themselves to launch children on a wonderful journey of discovery about themselves, their community and their world, without having to impose learning or discipline in any form. They will find that children readily become enthusiastic and active participants in the curriculum, as opposed to being passive or reluctant, even antagonistic recipients of imposed learning and teacher control. The most wonderful attribute of a whole school, long-term readiness program is that children's sensory processing deficiencies can be easily remedied en- masse. Intensive individual programs should be needed only for the most seriously affected children.

Although it is activated by intellectual activity, the act of speaking is a physical process, which requires strong control of the breathing patterns required for speech, and the development of exquisitely fine coordination of the speech-producing muscles of the larynx, mouth and face.

The most effective means of helping all children to improve their speech is to develop and implement a daily speech-training program.

A daily speech training program, integrated with training in phonics, handwriting lessons, rhymes, poems and songs, produces that wonderful bonus effect, because as already indicated, it will facilitate and accelerate perceptual development. An effective readiness program provides a solid foundation for a fully effective language development program, because the development of language skills requires a child to be able to accurately perceive and faithfully reproduce good spoken language.

The art of written language is totally dependent upon those same physical and sensory developments, with the addition of the need for the fine, and barely conscious, coordination of the muscles used in handwriting.

Accuracy in spelling is totally dependent upon acutely tuned sensory perceptions, which also determine short-term and long-term memory.

When faced with language in printed form, children must be visually stimulated to respond with audible and/or silent speech. That is what reading means, and it is what makes reading for information and enjoyment possible The readiness development which must occur if this is to happen, is long-term and complex, and significantly, will not occur for many children without curriculum assistance.

There are of course other aspects of readiness that must be taken into account by classroom teachers, for instance, the day-to-day health and well being of children. Are they well? Are they tired? Are they hungry? Are they too hot or too cold? Are they happy or unhappy? Are they angry or contented?

Do they have sequential readiness for learning mathematical processes, for reading materials? Do they possess pre-requisite concepts for science or social studies?

Above all, readiness requires that children's bodies receive a proper physical education. In this sense, physical education involves much more than mere participation in physical education sessions and sport.

In view of the scope and significance of learning readiness development, one must ask the following kinds of questions:

- **Why are teachers expected to teach without being made aware of the determinant nature of learning readiness?**
- **Why are teachers at all levels not required to facilitate children's learning readiness as a prerequisite for their teaching?**

- **Why are teachers expected to begin the teaching of reading so early in the education process?**

- **Why does international research insist the children in the upper grades are unlikely to become literate if they have not become literate in the lower grades?**

From: [redacted]
To:
Cc: NSW Productivity Feedback
Subject: Emory University News Release - cognition
Date: Monday, 21 September 2020 11:35:41 AM

http://www.news.emory.edu/Releases/

Psychologist Challenges Traditional Views of Cognition

EMORY UNIVERSITY | Office of University Media Relations

Release date: Oct. 30, 2002
Contact: Nancy Seideman, Director, University Media Relations, at 404-727-0640 or

Emory University cognitive psychologist Lawrence Barsalou is rethinking how we think, and in the process he's leading a challenge on the prevailing theories of human thought. Complementing traditional behavioral experiments with the use of neurological imaging, Barsalou is finding the evidence to support his long-held hypothesis.

Describing the brain as "a last frontier of discovery," Barsalou and a growing coalition of scientists around the world believe our cognitive processes—how we recall memories, process information, acquire and retrieve knowledge—are grounded in the sensory-motor mechanisms of the brain. The theory directly conflicts with the prevalent views on cognition that emerged during the 1950s when the advent of computer science had a tremendous impact on psychological theorizing, Barsalou says.

"Developing a new basis and explanation of cognition is the subject of intense debate, since it defines who we are, how we

think and acquire knowledge. Reevaluating cognition has ramifications throughout society, from worker training and education to technology and computer programming," says Barsalou.

The current dominant view sees the brain operating somewhat like a computer, accessing different bits of knowledge in separate areas of the brain, as a computer would tap multiple data files. Using this hypothesis, many theorists believe cognition is separate from sensory-motor systems, with one part of the brain implementing all of the higher cognitive processes that use knowledge, while other parts implement sensory perception and action.

In contrast, Barsalou's research "explores the theory that when we think and conceive of an entity or event in its absence, we partially run sensory-motor mechanisms as if it were present," he says.

Barsalou and other researchers have localized various forms of conceptual processing in sensory-motor areas of the brain using both classic behavioral experiments, along with more recent neuroimaging techniques. Barsalou has found that when people verify the visual properties of an object from memory (for example, a lemon), visual areas of the brain become active. When people switch among sensory modes to verify different properties like taste, smell or touch, the corresponding areas in the brain activate among the visual, auditory, tactile, olfactory and gustatory motor systems as needed, he explains.

Such neurological data, which weren't possible when the original theories developed, demonstrates that knowledge is based in sensory-motor representations, Barsalou says, and as a result, perception, action and cognition are far from independent and share critical brain systems.

Barsalou, recent past chairman of the Cognitive Science Society, will use a Guggenheim Fellowship he received earlier this year to write a book, "The Human Conceptual System," on his 30 years of cognitive research.

"In a way, with the sensory-based theory, we go back to pre-20th-century ideas and philosophy on the mind, while putting it into a 21st-century, scientific perspective," says Barsalou, who joined the Emory psychology faculty and the department's program on cognition and development in 1997 from the University of Chicago. He also is a fellow of the American Psychological Association and of the American Psychological Society.

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Back

Where Next for the Education State?

Saturday, 11 June, 2016

Maroondah Federation Estate (Room 3)
32 Greenwood Ave,
Ringwood

The Victorian ALP's Education and Youth Affairs Policy Committee is holding a forum to examine the Victorian government's Education State initiatives and look at where we might go next in implementing a more equitable and successful education system for the state.

Program

1:00pm	Welcome – Marg Lewis, EYAPC President
1:05pm	Panel of three (20-25 minutes for each talk and 5-10 minutes for individual questions):
	1:05pm Stephen Dinham, Professor of Instructional Leadership, University of Melbourne
	1:35pm [redacted], former principal and teacher of the year
	2:05pm Nic Abbey, President of VICSSO
2:40pm	Federal Labor support – Tony Clark, candidate for Deakin
2:45pm	Afternoon tea – and time to write questions
3:10pm	General Q&A Session – written questions first
4:00pm	Labor response
4:10pm	General Discussion
4:25pm	Farewell and Thanks – Marg Lewis
4:30pm	Finish

Forum Presentation by [redacted]:

The Italian Renaissance, which saw the rebirth of many social and cultural ideas, is regarded by historians as a period of enlightenment. And as we know, the word "renaissance" itself means rebirth.

We also know that slogans such as "Keys to Life", "Education Revamp" and "Education Revolution" haven't given teachers much to cheer about in recent time, so it is my heartfelt objective in the next twenty minutes to convince you that Education's greatest long-standing need, is to undergo a Renaissance of its own, featuring a long-overdue rebirth of Educational Philosophy, in particular, a rebirth of understanding the way children use their developing brains to learn.

For those who do not wish to see this as a reality, I now intend to make it absolutely clear that there is an urgent need for all teachers currently serving in our nation's schools to experience a morale-boosting period of enlightenment.

Enlightenment comes with understanding. Without a clear understanding of the fundamental nature of learning, there will always be misinformed public opinion relentlessly driving political leaders to acts of desperation.

I'm sure most teachers will agree that misinformation and desperation remain in plentiful supply, most visibly in the media, and in a continuing, three-decade's-long sequence of failed education reform movements.

Given they always prove to be ineffectual efforts to lift standards, and given they continuously cause residual, unwarranted pain and grief to teachers, I consider reform movements to be dreadful acts of desperation, because they are inevitably based on false beliefs about teaching, and false assumptions about the way children learn.

So, in the hope that it will lead to enlightenment for all teachers, I'm here to offer the **inspiration** that brought **enlightenment** to my teaching, and which ultimately defined my teaching career.

As recently reported in the media, ACER's CEO Professor Geoff Masters asked: What is the problem with Australian schools?

I trust my presentation will convincingly answer his question **and** at the same time, provide the ingredients of a rapid and permanent solution to stagnating standards.

This is not misinformed opinion, or desperation or wishful thinking - for what I am about to say is founded on my long-term teaching experience and my publicly acclaimed success as a primary school principal. It is also backed by well known learning theory and by research in neuroscience.

First of all, given the **pivotal** role of the **primary school** in the overall scheme of things, primary teachers **must** be regarded as specialist teachers in their own right **-** and I use the word "must" advisedly**.** They must not be seen as generalists, as many seem to believe they are. They **must** be given **learning-specific** pre-service and in-service training, otherwise primary education will never take the lead in producing higher standards - which it must do - as a matter of great urgency.

But that is not going to happen while primary teaching is viewed as an inferior or easier version of secondary teaching, and while all leading educators disdainfully view primary teaching through the prism of limited secondary teaching experiences.

When primary schools allow underachievement to flourish and fester thanks to **institutionalised systemic ignorance**, all educational sectors suffer, none more so than the secondary sector. Enlightenment is the only way put an end to this travesty.

This leads me to focus attention upon a **verifiable** way of **facilitating successful learning for all intellectually capable students** - and I'm talking about the vast majority of children in our schools, regardless of any educational advantage or disadvantage.

Twenty to twenty-five percent of primary and secondary students are **reportedly struggling to *achieve* and *maintain* minimum acceptable standards of literacy and numeracy.**

Given that a minimum acceptable standard is a weak and impermanent state of learning, it is fair to say that there is something terribly wrong with a system of education that somehow interprets that as a measure of successful teaching. If that many students are struggling, can the rest be achieving according to their individual capacity to learn? Of course not!

As it appears this ***is*** the current state of affairs, then it must be recognised as a catastrophe; and in my opinion, it is a catastrophe that can be sheeted home to a misinformed and misleading Philosophy of Education.

Bearing **my** opinion in mind, I'd like you to ponder these rhetorical questions:

1. What exactly **is** the **focus** of Educational Philosophy? Is the focus on teaching or is it on learning?
2. Is there a philosophy that is properly defined, or, is philosophy a matter of ad hoc consensus or of individual choice?
3. For that matter, what is your **personal** Philosophy of Education? Do you have one that you can readily articulate, and most importantly, personally translate into successful teaching practice in the classroom?
4. Do you ever question your philosophy, your beliefs, your assumptions, your concepts of teaching and learning? Or are they set in concrete?

I pose those questions because forty years ago, an extremely difficult set of circumstances ***forced*** me to question "conventional wisdom", and to develop a philosophy of my own, which, when applied to curriculum development, was responsible for the sort of learning outcomes that all teachers of underachieving children desire, but few achieve.

To explain the desperate and still relevant need driving that drastic action, I must hark back to the beginning of my career, and illuminate the long and tortuous pathway that ultimately led to inspiration and enlightenment.

I trained as a primary teacher in 1954 - 55 at Melbourne Teachers college, and for the next twenty years, I strove to be the best teacher I could be.

I had set out, and had proceeded to teach ***as I was trained and expected to teach***; but, whilst I was rewarded with a number of rapid and hard-earned promotions, this striving took a heavy toll on my health. A fate unnecessarily suffered by far too many teachers.

By 1974 I was seriously ill with an undiagnosed, life-threatening condition, which, when ultimately diagnosed, required five months sick leave before I was strong enough to survive life-saving surgery.

I received compensation because the illness was deemed to be stress induced. My thyroid had become dangerously overactive in response to stress, and severe thyrotoxicosis/ poisoning was **very** close to killing me.

The surgery was next best thing to a miracle cure in more ways than one, because, although I seriously considered leaving the profession, I took a risk and returned to duty in 1975 at one of the most notorious and most disadvantaged schools in Melbourne - with the knowledge that I was to be allocated a fourth grade of **forty** underachieving and difficult pupils. It was a huge risk, but one that ultimately returned a massive dividend.

Having thought long and hard about what had happened, and what might lie ahead, and having already taught in a significant sequence of country, rural, and suburban schools, both advantaged, and disadvantaged, I drew upon all my experience to plan ahead.

Knowing full well that I could not continue to push myself beyond endurance any longer, I devised strategies that I hoped would help the children while ensuring my own survival for one more year, at which time, my appointment in that notorious school would have run its course.

You can teach disadvantaged underachieving children until you become desperately ill, as I did, and not see the learning outcomes you strive for, because **so many disadvantaged children simply do not learn by being taught in the ways that conventional wisdom, and government policy, would have them taught.** I used to refer to them as reluctant learners. They are the children who become the 'classic' examples of the illiterate and innumerate members of society, whose plight is inevitably and unfairly laid at the feet of their teachers. But they ***are*** intellectually capable - so they do not **deserve** to fail.

Strategy number one was based on my realisation that these children would most likely never learn to read well, because their speech and spoken language was ***so*** poor, it did not bear resemblance to the printed language in books. So daily speech training of the old-fashioned sort became my first strategy.

Logically, I decided that it was one thing to provide speech training, and another thing to provide a variety of opportunities for the children to **use** their voices - so, among other things, speech training was followed by the singing of songs and the recitation of rhymes and poems - all of which were presented to the children visually and aurally. Words of songs were written on the chalkboard - rhymes and poems were presented on duplicated sheets. My voice provided the model and vocal support.

Constant repetition, or if you like, rote learning of songs, rhymes and poems provided many benefits, not least of all, growth in language and vocabulary. It also provided endless opportunities for assisted whole class reading, for absorbing language forms and sentence structure, and for an introduction to grammar.

Besides, singing and poetry brought genuine feelings of joy and pleasure to children whose lives were sadly lacking such emotions.

These practices became safe, secure daily routines, as did the integrated handwriting and spelling activities that followed, as did my determination to hear every child read something aloud to me every day.

And so my simple - integrated - language development and - multi faceted literacy program began and evolved. Most importantly, this wasn't just about focusing on the teaching of reading!

My second strategy was based on my knowledge of the volatility and disruptive behaviour of children in that school, and I had figured that poor and volatile behaviour was due in large part to frustration.

The lives of so many children were filled with endless frustration and anxiety, by deprivation, even by child abuse, all exacerbated by their failure and underachievement, and even their disciplining at school. There were so many little volcanoes ready to erupt - any opportunity to vent that frustration was accepted with gusto.

Knowing that a good way to relieve any frustration I might be feeling was to take deep breaths and undertake physical activity, helped me decide to employ breathing and physical exercises at the first and **every** sign of restlessness or disruptive behaviour. I was prepared to do this as often and for as long as was necessary.

Even though I expected resentment - the very opposite proved to be the case. The children quickly came to enjoy their movement sessions and these too became invaluable elements of the safe, secure routines, which such children crave. Childhood should be full of movement of all kinds. Children should not be required to spend long periods sitting still in classrooms, especially sitting, squatting or crouching "on the mat".

With misbehaviour swiftly becoming less and less of a problem, and with happy teacher/pupil relationships being established and **strengthened**, my normal teaching style began to take effect, and learning began to flourish in that classroom.

Well before the end of that year, those children were reading, (much to the surprise of the Principal) and furthermore, they had been transformed en masse, from reluctant underachievers into happy, relatively successful and enthusiastic learners.

That success was so gratifying, it made me decide to stay on and repeat the success; also in the hope that I might help other beleaguered teachers see the benefits of my strategies.

But then staff changes for 1976 meant that I unexpectedly became acting Deputy Principal with responsibility for the Infant School, housed in a separate building.

That year was an important year of gaining experience in school administration, and although I didn't know it, ultimately, it meant that my classroom teaching days were over.

But it was especially important for at least two other reasons.

Firstly, I was now “officially” a teacher of teachers, a teacher educator, for it was my responsibility to offer assistance and guidance to more than a dozen young teachers and ancillary staff.

Secondly, I had happened upon, and then introduced the already established concept of Prep screening, a process utilizing the Vermont South Crossroads Program, which allowed prep teachers to closely assess each child’s physical, emotional, social, perceptual and language development and to plan to accordingly.

Here was coincidental and invaluable preparation for what was to come in my days as a principal.

Crossroads has long-since disappeared, but has been replaced by the far less informative Australian Early Development Census - AEDC

The following year, 1977, I was expecting to be returned to the classroom, but instead I was given a new role in that large school, that of English coordinator and mentor to a large number of teachers.

It was in that role that I was amazed to find that my former fourth graders, now in sixth grade, were, in terms of literacy, far more advanced than their peers. There were four classes at year six level, each class containing approximately one quarter of my former fourth graders, and the extraordinary contrast in literacy acquisition was uniform from class to class.

Here was an awe-inspiring discovery which prompted serious questioning in my mind.

Whilst endeavouring to understand what all this implied, I had the good fortune to attend a seminar at Swinburne Institute (before it became a university). The seminar had captured my interest because it’s theme closely reflected the design of the Crossroads program.

The seminar was presented by a Child Development consultant, Margaret Sasse, who later founded Toddler Kindy Gymbaroo, but sadly, is now deceased; and it featured Margaret’s practice of designing specific therapy programs for underachieving secondary students in the eastern suburbs.

Her programs were designed according to the theories of Sensory Motor Theorists and therapists such as Temple Fay, Newel Kephart, Marianne Frostig, Carl Delacato and Glen Doman.

Margaret’s Sensory motor programs were intensely therapeutic and designed for a few weeks duration. They also required a huge commitment from parents because they were conducted out of school hours. And there were considerable fees.

While I wasn’t expecting to gain as much as I did, it didn’t take me long to realise that in her presentation, Margaret was inadvertently explaining why my simple, year-long, cost-free strategies had brought about the remarkable transformation I had witnessed among those forty disadvantaged children. Best of all, sensory motor theory explained that my physical exercise strategy, acting in tandem with my literacy program, had played a major role in the children’s mass transformation from reluctant underachievers to successful learners.

In a flood of understanding over coming months I realised:

I. That my pre-service and inservice training had betrayed me and had almost cost me my life; that the Educational Philosophy with which I had been imbued was seriously deficient because it was totally reliant upon the Psychology Theory of Learning, and left no room for other theories.

II. That by the beginning of their year with me, most of my fourth graders had not yet achieved readiness for learning, which explained why they had been perpetually underachieving before they came to me. So I now understood that my survival strategies had inadvertently brought them to **viable** states of readiness for learning, and **that's** why my teaching had succeeded. It wasn't just because I had suddenly become a better teacher of subjects and subject matter.

III. That **misbehaviour, learning failure and underachievement**, especially in terms of literacy and numeracy are primarily due to neurological and overall immaturity, to lagging or delayed development in vitally important aspects of early and later childhood. These delays are clearly evident in children who exhibit poor behaviour, poor movement coordination, poor speech and limited spoken language. That's the basis of vital evidence that is hidden in plain view in every classroom. It is evidence that cannot be revealed by non-stop research into teaching practices and data analysis. It means that their sensory perceptual processing is immature and inadequate. Teaching of literacy and numeracy and just about everything else is rendered horrendously difficult by such immaturity in children.

IV. Consequently, I now knew that the primary school curriculum must become **readiness-based** if all intellectually capable children are to become successful learners ASAP; i.e. fully and functionally literate and numerate, and thus capable of independent learning.

V. Above all, I knew that thanks to the richness of my teaching experience, wonderfully supplemented by the inspiration gained from my disadvantaged students, **and** informed by Margaret Sasse, **I was now armed with the most potent knowledge any primary teacher or principal could possess.**

The opportunity to apply this potent knowledge to whole-school curriculum development came along immediately, when in 1978, I took promotion as Principal of another disadvantaged school.

The resultant learning outcomes in that school became a publicly acclaimed success story, and earned me the 1981 Victorian Teacher of the Year Award - for what was described as my inspired leadership, and for developing a highly successful program in literacy and numeracy.

Although it was immediately swept aside by the first of the failed reform movements, the achievement is nonetheless indelibly recorded in the history of Education in Victoria.

I shall now read some brief and telling excerpts from the report of the **official review** of my school in 1981 - three and a half years after taking up my appointment. That report is now documentary evidence in the archives of the Victorian Education Department.

At Fairfield North Primary School an identifiable, clear philosophy, as set down in the School Policy Statement, is evolving through the initiative and efforts of the Principal, the shared experiences and co-operation of the teachers, the teachers' aides and the children.

This philosophy has at its core a program of physical education, which is concerned with the development of the basic physical skills, i.e. those associated with physical co-ordination, sensory integration and sensory perception.

Then, most tellingly, a statement that I shall slightly paraphrase:

Considering the nature of the school population: cottage children (8), a total migrant population of 55.73%, and a mobility of 14% in transfers and 9% out transfers, the standard of literacy throughout the whole school is exceptionally high.

Fairfield North Primary School is a busy, happy establishment. Pleasant friendly teachers and pupils display courtesy and interest towards each other. It is evident that the teachers have gained the full confidence and respect of the pupils. This is certainly reflected in the work produced.

As stated above the standard of literacy throughout Fairfield North Primary School is exceptionally high. A whole body of theoretical and experimental evidence would suggest that the influence of the Physical education program is the major causative factor. But it is not the only factor operating here.

So there you have the extraordinary benefits of bringing enlightenment to teachers, and, as promised, you have the makings of a verifiable way of facilitating successful learning for all intellectually capable children.

Such are the wonderful outcomes that the vast majority of present-day primary teachers are capable of rapidly achieving.

All it requires is for both the whole-school primary curriculum and teaching practices to be modified so that primary teachers may continuously cater for children's developmental readiness for learning as they teach. That simply, is why there is an urgent need for a Renaissance in Education.

So back to Professor Masters! What *is* wrong with Australian schools?

The most fundamental rule of teaching is: do not teach children if they are not ready to learn because they cannot learn successfully.

Thanks to a misinformed and misleading Educational Philosophy, teacher education and training is bereft of understanding in the one area of knowledge that matters most - children's developmental readiness for learning.

To the detriment of all the children in our schools, and their teachers**,** our entire education system, the National Curriculum included, is founded, designed and implemented in defiance of that maxim, and therefore, teachers are educated and trained in ignorance of the precept.

By relying solely upon teachers, teaching methods and testing for standards, **and** reinforced by the NAPLAN shenanigans, our system of education **ensures** that seriously large numbers of children are destined to fail, or at best, underachieve relative to their individual potential.

It should now be self evident that all primary school curricula and teaching practices must become readiness-based.

Why? ….. If verification is still needed:

The AEDC, tells us that this year alone, approximately 60,000 children are developmentally vulnerable as they begin their primary schooling; i.e. they are at risk of failure and/or underachievement.

They are neurologically, emotionally, socially and/or intellectually unprepared for academic learning, they are not yet ready to be taught. This means that direct and remedial teaching reading may only magnify their learning and behaviour problems.

Over a seven-year time-frame, as many as half a million children, nationwide, are unnecessarily destined to underachieve, and some even fail because our system does not have one strategy in place to help them achieve readiness for learning!

So please! Don't expect me to have much enthusiasm for the latest research findings being used to promote individualised programs and the targeted teaching of reading and maths!

Thanks to the AEDC, Governments are aware of children's vulnerability, but not its profound implications for primary teachers, and as a result, billions of dollars are being poured in to early childhood education

I'm afraid that's a "scatter-gun approach", and therefore a **costly** and **insignificant** part of what needs to be done.

For what leading educators need to do /must do, is **learn to work in partnership with primary teachers** to devise strategies that will enable all teachers in all primary schools to **focus upon** and **remedy** the gaps, delays and deficiencies, which may be readily observed in so many primary and secondary students.

It is these unrecognised developmental deficiencies that prevent a lifting of standards in our schools, and all because nobody in mainstream education can recognise or interpret them.

To gain an understanding of developmental learning readiness, one needs to have an understanding of the fundamental, neurological nature of learning. You'll find my simplified explanation in an essay I recently submitted to the Federal Minister for Education and Training, Senator the Hon Simon Birmingham and copied to his counterparts in all state territory governments.

Most Ministers, including Senator Birmingham, have responded in person. Their responses are placed here on the table if you wish to peruse them.

While they are yet to be fully convinced, I believe they are all open to persuasion, so here is the perfect moment to initiate a nationwide Renaissance of Educational Philosophy.

For question time[1]

The hundreds of thousands of underachieving children in our schools cannot wait for the best and brightest teaching candidates to begin to have an impact on overall learning outcomes. That's years away, and the impact will be less than hoped if new generations of teachers are not provided with the inspiration and enlightenment that is so desperately needed.

A few last thoughts - Education's greatest philosophical error is to imagine that the quality of the teaching determines the quality of the learning outcomes. Also, that the quality of the learning cannot exceed the quality of the teaching.

Developmental readiness for learning is the **primary determinant of learning success**, therefore it is the **major determinant of teaching success.**

Teaching, no matter how it is delivered, is a secondary determinant of learning success.

[1] These last statements were not delivered due to perceived time constraints and my ill health

[redacted]

[redacted]

Dear [redacted]

Whilst acknowledging that you are a very busy executive, I am nonetheless puzzled by the fact that you did not provide a considered response to my emails of 20/9, 23/9 and 5/10 2016 respectively. After receiving your earlier replies, I am even left wondering if I might have offended you, or touched an 'academic nerve' somewhere along the line.

Following that latter train of thought, I searched for your published papers on line, and found your 2015 Grattan Report titled: **827 Targeted Teaching:** ***How better use of data can improve student learning.***

There I found the likely source of my puzzlement. It is easy to see that my solo campaign to bring enlightenment to the teaching profession has presented a challenge to the widely-accepted premise upon which you base your thesis.

That premise is not just yours of course, it is the same false premise upon which the entire education system is built, and which is responsible for most of Education's woes.

Formulated according to a misleading educational philosophy, that premise reads simply as: ***"Children learn academically by being taught - assuming they have proficient teachers,"*** *to which you add: "****and they will learn well - if data-driven teaching is targeted at building upon what they already know, and therefore, what they need to know next."***

Even the National Curriculum is based on the same oversimplified premise, in the belief that ***"all children can learn by being taught", and, "allowing that children develop at different rates, teachers/teaching should ensure that every child is taught and encouraged to learn at a level commensurate with individual potential".***

Despite its severe limitations as an educational tool, NAPLAN at least demonstrates the fallacy of that premise, because year after year, it shows that as many as 25 - 30% of students struggle to learn by being taught - a struggle for which teachers are unfairly blamed.

Contrary to that style of thinking, ***my real-life teaching experience*** tells me that a very different premise is required. One that is based upon the knowledge that play, along with familial and social interaction, is responsible for an immeasurable number of natural developments that **must** occur in children's bodies, brains and minds throughout infancy and early childhood, **before** they are mature enough to benefit by being taught conventionally by teachers.

Each individual child must be **developmentally ready for learning at <u>all</u> stages of their schooling - not simply judged as being ready for scho**ol.

My real-life teaching experience also tells me that primary school teachers must be trained to be aware of this very real phenomenon, and be prepared to cope with it.

Without the necessary maturity, tens of thousands of children are confused by being taught - meaning that in reality, **they are unteachable in their immature state.**

If it were to find acceptance as the norm, the premise of "developmental readiness" would constantly alert teachers to the fact that while infancy and early childhood should supply the opportunities and challenges to produce natural maturation, the reality is that not all children enjoy an ideal infancy and early childhood.

Primary teaching should therefore be based on the premise that the curriculum, in its entirety, can make up for developmental deficits by deliberately promoting the maturational processes of all children - before and while they are being subjected to teaching.

This should always be the case, especially in disadvantaged schools where socio-economic disadvantage readily translates into educational disadvantage. But not all educationally disadvantaged children are socio-economically disadvantaged.

So in my way of thinking, and in my way of school leadership, primary teachers must learn the importance of providing supplementary opportunities and challenges to compensate for vital developments that have been missed by so many children.

And, at the same time, teachers must learn how to make provision for those vital non-academic developments that are ***<u>yet</u>*** to occur for ***<u>all</u>*** children throughout their years of schooling.

Our education system is seriously flawed because it fails to recognise that reality, and its profound implications for teaching and academic learning.

It appears that the only thing that matters to education's leadership, and its critics, is that teachers must teach according to the prescribed curriculum ***by using researched and approved teaching methods***, no matter how difficult that may be, and no matter that there is yet to be any real evidence that such a premise is viable.

This is what I labelled **institutionalised systemic ignorance** in my presentation to the Victorian ALP's Education and Youth Affairs Policy Committee on June 11th 2016.

Also confirmed by the Australian Early Development Census study (AEDC) my experience tells me that unless deficiencies are deliberately remedied by way of an enlightened curriculum, **developmental immaturity will <u>always</u> impede children's learning; and obviously, at the same time, stymie their teachers' efforts**.

The teaching of subjects and subject matter is just one element of a school's total curriculum; so, no matter what the collection and analysis of data may tell us about their achievements and their academic progress, and no matter how strategically they are taught subject matter, it is inevitable that tens of thousands of children will be unable to learn with true success - **i.e. relative to their individual potential or even their teachers' expectations. They will underachieve at best, or fail at worst.**

Therefore, I make no apologies for my challenge to direct/targeted teaching; nor do I resile from anything I have said or written.

To quote your report: *"Teachers and schools can lift all students' performance if they are equipped to collect and use evidence of individual student achievement and progress. Working together, teachers should assess what each student knows now, target their teaching to what they are ready to learn next, and track each student's progress over time. Teachers should then analyse their own impact, keep what works and change what does not".*

In case you are not aware, that's what teaching has always been about, albeit in a less concentrated manner; so the targeted teaching methods you describe will **not** provide a way to dramatically lift students' performance. They will only have the effect of "watering down" or "thinly spreading" teachers' efforts, when those efforts should be concentrated upon linking learning with childhood development.

My documents should make it very clear that there is a far more realistic way; one that can quickly and dramatically improve learning outcomes for all children; one that has very little cost attached to it; one that brings joy to teachers instead of stress and heartbreak, **and** one that makes it possible for teachers to then **follow up with teaching that has the best chance of initial and continuing success.**

In referring to the AEDC findings that tens of thousands of children come to school each year with recognisable developmental vulnerabilities, I am enabled to point out that because those vulnerabilities are ignored or misunderstood throughout the entire education system, those same tens of thousands of children proceed to develop **long-term, classroom-bred learning and behaviour problems** - a reality which strongly emphasises the danger of relying heavily upon targeted teaching and classroom "discipline", without first attending to those vulnerabilities.

In the main, children do not come to school with learning or behaviour problems, but many develop them in response to misguided curriculum/teaching practices. The greater bulk of l**earning difficulties** and **behaviour problems** are all too common, and are avoidable in that they are associated with delays in vital areas of children's development.

It must be stressed that learning difficulties and problems are readily distinguishable from **learning disabilities**.

The NO CHILD SHOULD FAIL Project and Research Study demonstrated how learning difficulties/problems are easily avoided, even remedied, simply by catering for children's developmental readiness for learning on a daily basis, thus quickly lifting all students' performance.

In recognising the success of my work as principal of Fairfield North Primary School, the **citation attached to the** [redacted]

"He believes that each child's development of the basic skills of movement coordination, speech and sensory perception determines the development of language skills that are essential for the avoidance of learning difficulties."

Yes! It's all about assisting children to avoid common learning difficulties - from the beginning to the end of their lives at school - and it's all about providing that assistance as a pre-cursor to all teaching, in that it is about stimulating neurological connectivity - the basis of sensory perception and sensory integration - which collectively provide the foundations of learning.

That was radical reasoning for the leading educators of the day; but it gave them pause for thought as they composed the citation. Apparently, it remains radical thinking to this day.

This is something that teaching of subject matter alone cannot do. It is therefore something that data-driven targeted teaching simply cannot achieve on its own.

Again I quote from your report *"In the world's largest analysis of the factors that improve student learning, Professor John Hattie shows that teaching strategies with the greatest impact are those that use evidence of learning to inform and improve teaching. Investing in student progress requires giving every teacher the time, tools and training to collect and use evidence to target teaching in this way. Done well, this investment could (questionably) boost learning enough to land Australia among the world's top five performing countries on PISA tests".*

Such a procedure may bear fruit among historically successful learners in later secondary education, but otherwise, it's a recipe for turning primary schools and junior secondary schools into data factories, and teachers into process workers - being required to relentlessly feed data onto endless electronic conveyor belts.

It's also a recipe for breaking the hearts and spirit of countless numbers of teachers and principals, even forcing them to abandon their vocations - a phenomenon that is already clearly in evidence as a result of ham-fisted intervention in education.

You say in your report*: "The challenge is to embed targeted teaching in every classroom. Schools and governments must step up."*

To counter that, I would argue that John Hattie's analysis of factors that improve student learning is **only** concerned with the **teaching strategies** that have **the greatest measurable** impact on learning.

Even though he does include some minor outside influences such as parental interest, Hattie's table of effects sizes does not take into consideration the **profound impac**t that children's development-based learning and behavioural problems impose on their receptiveness and responsiveness to teaching, and on their classroom behaviour.

Significantly therefore, Hattie's table of effects sizes does not make any provision for recognising or remedying the underlying learning problems that are so common among the students in our nation's schools.

The teaching and testing of subject matter alone cannot resolve learning and behaviour problems, so unless or until teachers learn how easy it is to preempt the bulk of them - and even learn to correct them when they do occur, there can be no genuine recovery for our much troubled education system.

It is my genuine fear that if your report and its recommendations are accepted and acted upon by education's leadership, our education system is headed for a disaster such the one that is clearly evident at Aurukun.

Ironically, in response to a call for assistance from the Cape York Community in 2012 (?), I made contact and offered my ideas, but they were politely rejected in favour of calling in the American 'Experts' on Direct Teaching.

What has happened since was quite predictable and is made clear by the controversy raging over Aurukun and Direct Teaching, which is even recognised in the Queensland Government's Review of School Education in Aurukun.

What is even more alarming, Queensland educational leadership has no idea of what it will take to rescue the children of Aurukun from years of having had learning imposed upon them in rigidly controlled literacy and numeracy sessions - as is clearly depicted in on-line videos.

The NO CHILD SHOULD FAIL documentation would readily fill that knowledge gap.

Yours sincerely,

[redacted]

P.S. I heartily recommend that you access a You Tube video titled:

The Kinaesthetic Classroom : Teaching and Learning Through Movement - Michael Kuczala

[redacted]

[redacted]

Dear [redacted]

Accepting the invitation appended to your Email of 2nd March 2017, I have accessed your *Grattan Institute* report titled: ***Engaging students: creating classrooms that improve learning.***

At the outset, I want to assure you that whilst the oft-used analogy of “band-aid solutions” readily came to mind during my readings of your document, it is not my intention to merely become involved in a discourse on the kind of temporary solutions you are soliciting on behalf of struggling teachers.

Instead, I want to delve down into the “nitty gritty” of underachievement, misbehaviour and disengagement. To make this clear, I’ll reiterate ideas with which you are already familiar.

My plan is to identify the tangible origins of these phenomena, to describe their inter-relatedness, and to then look at their harmful long term effects. This will allow me to promote the strategies I devised in primary schools as I learned to preempt *and* prevent them. It will also enable me to assert that these strategies would lessen the impact of student misbehaviour and disengagement on the extraordinary number of secondary teachers you have identified as struggling with classroom management.

I shall make a start by addressing the following emphatic statements appearing on page 3 of your report:

- ***"We do not know what causes children in Australian schools to disengage"***
- ***"Disengaged students are one to two years behind their peers".***
- ***“Overcoming student disengagement is complicated.”***

By basing your paper on those revealing statements, you have inadvertently provided another timely illustration of the institutionalised systemic ignorance I sought to identify during my presentation to the Victorian ALP’s Education and Youth Affairs Policy committee, (11th June 2016).

‘Not knowing the cause’ in this case is a prime example of that institutionalised ignorance.

To put that another way, it is the lack of this specific knowledge throughout all education systems that causes so much harm to students and teachers in our schools.

While plain logic tells me I can’t be the only teacher to develop a practical understanding of the origins of children’s disengagement in schools, it also tells me I can't be the only teacher to discover that overcoming student disengagement is not all that difficult or complicated.

That said, yet being unaware of any others contributing their knowledge in this regard, it appears that it is still up to me to proffer the line of reasoning that enabled me to eliminate unnecessary underachievement, misbehaviour and disengagement from an entire disadvantaged primary school. (You have already received documentary evidence of this.)

Systemic solutions are required here, not just band-aid solutions for struggling teachers.

At this point, you will need to consider the fact that my understandings of underachievement's origins were assembled throughout a lengthy classroom teaching career: This means that following fifteen years of **real-life** teaching experience in regional, rural and *affluent* suburban primary schools, my new line of reasoning fashioned itself during the **next** fifteen years of **real-life** teaching experience in Melbourne's *disadvantaged* primary schools. No research study can possibly match that experience.

As the result of long-term classroom experience therefore, my ideas firmed as I began encountering the same negative attitudes and obnoxious behavioural patterns appearing repeatedly among successive generations of disadvantaged underachievers. The accuracy and reliability of my new line of reasoning was ultimately confirmed as I matched my observations with well known sensory motor theory and the revelations of investigative neuroscience.

This is not a matter of responding to daily occurrences, or "reinventing the wheel" in order to deal with each new group of students. It is a matter of understanding the ***commonality*** of acquired negative attitudes and their attendant behaviours, and knowing what action to take in addressing them[1].

So, as indicated, and for the benefit of other recipients of this open letter, even at the risk of testing your patience, I shall now summarise my previously delivered concepts of *children's developmental readiness for learning*, highlighting the manner in which ongoing neurological connectivity and neurological organisation within children's brains determines their readiness for learning, and therefore provides the neurological groundwork for both teaching and learning This is the *physiology* of learning, which all teachers must come to understand if they are ever to overcome underachievement on a system-wide basis.

This summary enables me to explain why lagging readiness for learning leads directly to ***underachievement***, and why ***underachievement***, if not prevented from the outset, is the starting point that leads inexorably to ***disengagement***, followed by ***misbehaviour***- always in that order - and, depending upon the level of underachievement by individual students, on a sliding scale of intensity.

It is essential to understand that learning success, like its opposite outcome, underachievement, is relative to individual potential, not standards.There are far too many students, who, despite reaching "acceptable standards", are achieving well below their true capacity for learning despite the best efforts of their teachers.

That is a very real aspect of underachievement, and is a foreseeable and preventable cause of misbehaviour and disengagement. It can even be viewed as a foreseeable cause of mental health problems among teenagers.

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[1] Paradoxically, while seeking input from mentoring teachers, you rule out input from teachers that does not meet your stipulation of needing to be "evidence-based".

Of equal importance, is the need for teachers to gain knowledge of classroom routines that may be employed to assist children in overcoming lagging neurological readiness, thereby enabling them to become increasingly successful as learners - as they progress through their schooling.

Preempting underachievement in classrooms is manageable for good teachers, even on a system-wide basis - because neurological readiness for learning is the natural product of combined physical activity and sensory stimulation in early childhood. For that reason it is dynamic, i.e. it is subject to renewal and enrichment provided children participate in the right sort of curriculum activities each day.

Children's Developmental Readiness for Learning - as previously explained:

According to sensory motor theory, children are enabled to learn from their teachers when the *developing* sensory motor mechanisms of their brains provide well-organised *perceptual* or *learning* pathways from all the sensory receptors to, within and away from their brains. This is children's developmental readiness for learning, which is all about ongoing brain cell connectivity and neurological organization. Organised sensory perceptions and sensory integration play vital roles in learning.

Teachers should all know that children's perceptions provide them with their *basic skills of learning,* which means that well-established perceptual processing provides the very foundations of learning. At its strongest, perceptual processing allows students to be immediately receptive and responsive to teaching, thus allowing them to make sense of what is being taught. Movement coordination is a key component of basic skills development.

Movement coordination is vital because the perceptual development it helps produce is meant to be achieved throughout the clearly recognised stages of infancy and early childhood. That's when these facets of growth and development are meant to occur naturally through play and human and environmental interaction. Early childhood of course, includes the primary years of schooling.

It should therefore be made clear to teachers that the basic skills of learning are not adequately achieved by all pre-school children. This is a factor which should be most apparent to teachers who are teaching educationally disadvantaged students.

For that matter, it is also worth noting that not all educationally disadvantaged children are poverty stricken, some even enjoy affluent, albeit un-stimulating lifestyles.

In light of his scientific research findings in the early 2000's, Cognitive Psychologist Lawrence Barsalou of Emory University tells us that ***all knowledge*** (learning) ***is acquired, stored and retrieved in the sensory motor mechanisms of the brain.*** And that ***all knowledge is grounded in sensory motor representations.***

Studied seriously, and when sufficiently understood, these scientific findings carry profound implications for teachers, for they mean that *there can be no guarantee that children will learn simply by being taught*. Even without reference to such scientific evidence, the absence of that guarantee is one fact of life that should be perfectly obvious, given the three-decades-long sequence of failed educational reform initiatives, all of which were aimed at improving teaching, but which have merely produced a parallel decline in standards.

In their 1970's publication "Reading Instruction through Diagnostic Teaching" Harris and Smith explained that: ***"as the child grows and gains greater control of his body, he develops more meaningful and more accurate sensory perceptions"***

The corollary of that statement is: *"The child who does not gain ever-increasing control of his body as he grows, i.e. the child who misses out on vital developmental opportunities throughout infancy and early childhood, who does not develop satisfactory gross and fine motor coordination, is the child who is unlikely to continuously develop meaningful and accurate perceptions".*

Without truly meaningful and acute perceptions, such a child will be unable to adequately "make sense" of everything going on around him - will not be able to make sense of what is being taught - so, most likely, will have little choice other than to disengage.

In excerpts from his medical text published in 1969, titled: ***"****Human Neurological Organization"*, Edward B. Le Winn describes neurological organization in terms that have great relevance for educators, especially those who fail to understand the origins and sequential nature of underachievement + disengagement + misbehaviour. He says:

"In essence, neurological organization is the process whereby the organism, subject to environmental forces, achieves the potential inherent in its genetic endowments".

"The environment determines the extent to which this potential will be achieved."

"Genetic and Environmental factors interweave to form the fabric of Neurological Organization. The pattern of the fabric is seen in the behaviour of the organism".

*"Conversely, **i**n the absence of appropriate and adequate environmental demand and opportunity**,** the organism's genetically determined adaptiveness **and its ability to learn may be essentially without value and its potential unrealised[2]."***

"To the extent that the qualities of his inheritance are good, that they are not impaired by disease or trauma, and that they meet challenges which are sufficient in their variety, frequency, intensity and duration while the infant is given ample opportunity to respond and, in fact to seek those challenges which satisfy his own biological individuality - to that extent will the child be able to survive and live successfully in his culture and society"[3].

As described above, developmental delays of the 'sensory-motor' and 'spoken language' kind make both the teaching and learning tasks very difficult indeed. Fortunately, such delays are correctable in the classroom, so their origins and their treatment should be adequately understood by all teachers.

Unless and until receiving the required assistance from within the primary school curriculum, it is inevitable that children with poorly developed motor skills, who are thus hindered by the immaturity of their perceptual processing, will underachieve throughout their schooling, with many resorting to chronic misbehaviour and disengagement.

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[2]Surely, this must be the most tangible outcome of socio-economic and educational disadvantage!

[3] These are surely the benefits of successful early childhood development leading to readiness for learning - and thus to learning success.

Should anyone care to make observations, they would most likely find that there are tens of thousands of intelligent children in Australian schools, who can be observed as having delays in fine-motor coordination (carefully observe children's handwriting and facial speech habits for clues), lagging perceptual development (carefully observe representations in children's drawings and other art and craft work), poor speech, and immaturity of spoken language, who can be clearly identified as the underachievers.

From among the ranks of the easily identified, and even the not so easily identified underachievers in our schools, come the emotionally troubled, the chronic misbehavers, the disengaged, the trouble makers.

It should be no surprise or coincidence if the children identified each year as being developmentally vulnerable by the Australian Early Development Census, were to feature prominently in the ranks of the underachievers and the disengaged at all year levels.

As I have demonstrated in the past, wholesale underachievement is preventable in classrooms when children are encouraged to be active and happy participants in learning, not just passive recipients of teaching.

As I argued in my aforementioned presentation, and as later published in The Australian College of Educator's *Professional Educator:* "*the primary school is pivotal to the success of the entire education system".*

My argument implies that if primary education should fully succeed, as it must - and that must happen sooner rather than later, the scene would be set for successful secondary, technical and tertiary education. *This requires enlightenment on a systemic scale.*

However, as long as unenlightened primary education falters in this regard, not only will large numbers of students develop learning and psychological problems, primary teachers will continue to suffer "burn-out" as a result of imposed reforms causing them to misdirect their energies.

Secondary teachers will also continue to pay a very heavy price in "burn-out" because of having to deal with the underachievement, the disengagement and the obnoxious behaviour they inherit from their feeder primary schools.

If students in Years 6, 7,8 & 9 are not only disengaged, but also behaving atrociously, it is because they have become well practised in their *self-taught* and *highly specialised* disruptiveness, the skills of which they have been perfecting throughout their seven years of primary schooling, while academically underachieving the whole time.

Their disruptive talents give a clear indication that they are not only been failed by the education system to date, but that they are obviously resentful of their constant underachievement. Then, just to make things even more unpleasant for everybody, they become evermore emboldened by their disengagement, and by the dangerous pseudo self-esteem they gain in the process of regularly "acting up" and "talking back".

For many disruptive students, their acting up is some sort of vengeful attempt to gain redress for the frustration they feel on account of the "raw deal" life has given them, for the physical and emotional trauma in their lives, for the inferiority they are made to feel as a result of their perpetual underachievement in all fields of endeavour, and for their emotionally and socially damaging lack of success at school; not forgetting that they can

be aggressively envious of the successes and possessions of other children, and that they always tend to be in conflict with their teachers.

Band-aid classroom management strategies, which individual secondary teachers might learn to employ in the short term, are clearly no match for this systemic catastrophe.

Bullying can often be seen as attempts by underachieving students to feel some sort of momentary superiority over others, achieving this by making others appear inferior to them in some way - even targeting their teachers for this.

No one should wonder about their lack of engagement - no one should wonder about their contempt for teachers, for authority, for education, and ultimately for society. No one should wonder why some of the most seriously affected underachievers proceed to display their contempt for society by turning to lawlessness in all its forms, once they no longer have teachers “controlling” them.

No one should wonder that so many young people develop difficult-to-explain mental health problems as a common outcome of a deeply flawed education system.

In view of the plethora of such cases, helping one teacher at a time to find ways of “engaging” students cognitively for the duration of a time-tabled lesson in a secondary school is not going to help anybody in the long term. Instead, it’s a “copout”

Teachers should be encouraged to adopt the following line of reasoning:

Successful participation, engagement, and resultant learning success are far more likely to occur, if, from the very first, and then every day they enter a classroom, children experience a **genuine** and **irresistible invitation** (not necessarily spoken) to become **actively** involved in **joyful classroom learning activities**. As well as careful and creative planning, this requires a great deal of patience and forbearance, along with displays of genuine warmth of feeling from the teacher towards all students.

This approach involves strategies that cater for the activities that children enjoy most, specifically: motor-coordination-inducing movement, movement to music, singing, dance, nursery rhymes for little ones and opportunities for self expression through spoken language, drama, art/craft, nature study and manipulative mathematics. All valid learning-enhancing and neurologically stimulating elements of the primary school curriculum.

Children who are physically, actively, emotionally, socially and intellectually involved in classroom activities from the beginning, are more likely to feel good about themselves, to become enthusiastically and happily engaged with their teachers and with the learning. Unfortunately, for some however, their physical and mental trauma, and their resultant sufferings are just too great, requiring additional professional therapy.

When continuously offered, an attractive invitation for students to join in physically, emotionally, socially and intellectually allows the teacher to operate ***as a skilful facilitator of learning***, ***ever enabled to draw upon the enormous reserves of child-generated energy to be found in every classroom -*** which is the very opposite of suppressing that energy with ‘discipline’ ***- in that way, the teacher is enabled to conserve her own personal reserves of energy, and thus preserve her own personal well being.***

When educationally and socio-economically disadvantaged children become successfully involved from the outset, and continue to be involved as successful learners, teachers can be at their creative best, and teaching become the joyous task it should always be. Teaching of subject matter alone cannot accomplish these wonderful outcomes.You'll just have to take my word for that, especially if you have never had the good fortune to experience that joy for yourself!

This means that an expectation that chronically underachieving children should make an orderly entrance to a "barren" classroom, be asked to sit down obediently, to be quiet and to become intellectually engaged immediately, is totally unrealistic, especially in disadvantaged secondary school settings, where it is always going to be a recipe for discontent and "reprisal".

Too much damage has already been done to too many children within a seriously flawed education system; a system which relies entirely upon a flawed "teaching" philosophy, one that supposedly provides guidance to teachers in their teaching of subject matter and the psychology of classroom management.

Granted, it must be very difficult for an individual secondary teacher to provide an inviting and appealing curriculum during one or two periods per week, but some level of successful management would be more likely to occur if the primary school sector first succeeded fully, and if secondary teachers were conversant with successful primary classroom practices like the ones I have described above.

I repeat: for learning to occur successfully in the primary school, the emphasis must be upon active participation, rather than merely upon intellectual engagement.

Active participation generates physical, emotional, social and intellectual growth and learning in a way that the teaching of subject matter alone simply cannot achieve.

It must also be heavily emphasised that children don't just use their intellect, nor merely use their eyes and ears for learning, they use their whole bodies - including the soles of their feet, their muscles and joints, even their bones, the tips of their fingers and the hairs on their heads, thereby involving all their sensory receptors, which, for learning purposes, must be effectively integrated - i.e. working harmoniously in concert.

That means that efficiency of sensory motor processing, including sensory integration, is essential. These are fields of knowledge that are ripe for study by teachers in their pre-service education and in their ongoing professional development.

Children's bodies and brains need to be physically educated in the truest sense, which won't happen just by teaching them subject matter, or by applying discipline measures, or by having them participate in time-tabled Physical Education lessons in the gym or playground.

That's why I say it is so important that all teachers become enlightened and fully understanding in the area of children's developmental readiness for learning.

Perpetual underachievement inevitably results in disengagement and misbehaviour - not the other way round. When underachievement becomes one of the norms in primary schooling, which it does for so many, then it's pity help secondary schools and teachers.

It should now be abundantly clear that there is a *direct correlation* between underachievement, disengagement and misbehaviour and their flow-on effects.

Successful learners tend not to misbehave - unless the curriculum and their teachers let them down. All children can become successful learners, even the disadvantaged, if they encounter enlightened teachers employing enlightened curriculum practices.

By making careful observation, any teacher should be able to see that underachieving children, including those who may not appear to be underachieving because they are reaching “acceptable standards”, have a natural inclination to misbehave to a degree that is relative to their level of underachievement and discontent. This explains why seriously underachieving children are inclined to become seriously disengaged and to seriously misbehave. Your paper would have teachers believe that the reverse is true - that misbehaviour and disengagement are major causes of underachievement.

Being a manifestation of underachievement, misbehaviour may take the form of passive disengagement - with the child trying to hide in the background and hoping to be ignored; or as is more likely, it will manifest as overt, obnoxious behaviour and disengagement.

The most obnoxious behaviour and attendant disengagement will be exhibited by traumatised children whose level of achievement is way below their true potential for learning. Intelligent and traumatised underachievers can display the most obnoxious behaviour - girls as well as boys - think bullying in all its guises.

Prevention is always better than cure. so all teachers should first aim to prevent underachievement :

The only way to deal effectively with underachievement, disengagement and misbehaviour, including bullying, is to do so by adopting a system-wide developmental readiness approach to teaching and learning, firstly at the primary school level and progressing it to secondary schooling.

At the risk of sounding cliched, such a systemic approach calls for an Educational Renaissance, featuring the rebirth of Educational philosophy, based on a rebirth of understanding the way children use their developing brains for learning.

The objective of readiness-based education is to enable teachers to assist children to make better use of their brains, and to do this by way of ever-increasing and ongoing enhancement of neurological connectivity. That’s what it means for teachers to first become facilitators of learning so that they may then proceed to teach successfully.

Yours faithfully,

[redacted] 25th May 2017

Cc
Professor Stephen Dinham AO
Dr Catherine Scott Victorian President of Australian College of Educators
Professor Brenda Cherednichenko Pro Vice Chancellor Education Deakin University
To other recipients yet to be decided upon

"NO CHILD SHOULD FAIL"

AN EXPLANATORY BRIEF

A: EXECUTIVE SUMMARY WITH SUPPORTING DOCUMENTATION

B: RECOMMENDATIONS FOR IMPLEMENTING A SENSORY MOTOR APPROACH TO THE PRIMARY SCHOOL CURRICULUM

C: RECOMMENDATIONS FOR FACILITATING IMPROVEMENT IN CHILDREN'S SPEECH

D: RECOMMENDATIONS AND SUGGESTIONS FOR PHYSICAL ACTIVITIES TO BE USED IN A SENSORY/ MOTOR/MOTOR/SENSORY APPROACH TO THE PRIMARY SCHOOL CURRICULUM

PRESENTED BY [redacted]

IN COLLABORATION WITH
MARGARET SASSE, CHILD DEVELOPMENT CONSULTANT
AND

MARIANNE SCHRIEVER, FORMER PRIMARY SCHOOL PRINCIPAL, CHILD DEVELOPMENT CONSULTANT, ASSOCIATE TO MARGARET SASSE – SECONDED TO ASSIST MARGARET SASSE IN HER PRESENTATION IN THE TRAINING PROGRAM.

"NO CHILD SHOULD FAIL"

A: EXECUTIVE SUMMARY:

The objective of this project is to draw the attention of educators and policy makers to the most important, yet most neglected area of school education, namely the vulnerable, and often confused state of sensory receptiveness, which individual students attain as they begin and proceed with their education.

Despite its importance, this primary determinant of learning success appears to be perpetually overlooked in the never-ending quest to raise academic standards. As they endeavour to bring underachieving children's learning outcomes into line with established benchmarks, education's leaders appear to focus their attention entirely on the competence of teachers; at the same time relying on outside agencies to deal with children's developmental problems.

Fundamentally, receptiveness for all kinds of learning increases as a child's perceptual motor skills come to maturity throughout early and later childhood. However, the rate of that maturation is totally dependent upon every movement and every sensory stimulus available to a child from the very beginning of its life. It is therefore part of nature's plan for human development, that as the child grows and gains greater control of his body, he develops more accurate and more meaningful sensory perceptions; a process, which in nature's design, is meant to deliver ever-maturing receptiveness and responsiveness to the learning possibilities in every living situation, particularly for survival in a potentially hostile environment.

The quality and rate of that developmental process becomes vitally important for every child's formal schooling, because academic learning is assimilated via the ever-maturing sensory motor functions of the central nervous system, at the centre of which is the brain with its ability to intellectualise through language continuously established via the perceptions.

It is a little understood fact of life, that when children are deprived of stimulating movement and sensory experiences throughout infancy and childhood, as many are, they suffer unrecognised gaps, delays and deficiencies in their development, with the result that they come to school hindered by sensory, motor, speech and language immaturity. Not only are they developmentally immature in those vital areas, children so deprived are unlikely to achieve acute receptiveness and responsiveness without deliberate curriculum assistance.

During every moment that such children are required to be in a classroom, their sensory receptiveness and responsiveness to teaching is limited; and all too often, they develop emotional, attitudinal, behavioural and/or learning problems as a result. Furthermore, while they remain in that condition, they can never learn according to their genetically endowed individual potential, i.e. they underachieve; despite the best efforts of their teachers.

This project is designed to demonstrate once more*, and this time prove statistically, that when the primary school curriculum is refocussed to ensure that it deliberately provides a wealth of compensatory opportunities for movement and sensory stimulation, it ensures that throughout his or her schooling, no intellectually capable child need underachieve in relation to individual potential.

In the modern era, the school syllabus is typically delivered without sufficient regard to the maturity of children's receptiveness and responsiveness to learning, and it is this universal error that inevitably results in the widespread underachieving that hangs like a black cloud over every education system.

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* *The author received public recognition for his original demonstration, when presented with the 1981 Victorian Teacher of the Year Award for developing a highly successful program in literacy…*

B: Recommendations for implementing a sensory motor approach to the primary school curriculum:

1. The first and major recommendation of this project is that Developmental Receptiveness should be made the first focus of all teaching practice to ensure that every child has the best chance to become fully receptive to teaching and to the contents of the curriculum.
2. That stimulating receptiveness-inducing activities should be deliberately incorporated in all subject areas of the curriculum. This is because children's bodies continuously require a proper physical education to enhance their chances of academic success; i.e. there is the need to help them to "educate" or fine-tune their motor/sensory functions, so as to assist the process that is known as neurological organization – the basis of all learning.
3. That stimulating receptiveness-inducing activities become established as features of classroom routines so they provide a reassuring, safe and secure environment for all, especially for children who are traumatized in their daily living.
4. That every day, if at all possible, in addition to gymnasium sessions, outdoor physical education and sport, at least thirty minutes of accumulated time should be devoted to motor/sensory activity in the classroom, at all year levels, along the following lines:
    - Begin each day with 2 to 5 minutes of directed activity to aid muscle tone, balance and circulation, to establish verbal and non-verbal communication with every child; to promote the immediate and active participation of all children in the curriculum, while especially encouraging the reluctant ones. Movement sessions give every child the chance to begin and progress through the day with success instead of failure.
    - Include simple breathing exercises in these opening sessions.
    - Begin all of the day's teaching sessions with gentle movement, with children following the teacher's leading movements.
    - Find time for two or three minutes of movement to music and creative movement during the day.
    - Occasionally, include simple drama sessions involving movement.
    - Break up long sessions with directed movement and controlled breathing.
    - Attract children's attention with semaphored movement.
    - Encourage children to talk, and listen to their talk.
    - Replace discipline with movement. Use movement to calm heated situations.
    - Design formal physical education sessions so that children experience as great a range of natural physical activity as is possible, so that such things as coordination, balance, awareness of space, awareness of self, self-esteem and visual and auditory perceptions are assisted in every way.
    - **Utilize every aspect and recommendation of the physical education syllabus that you are able.**

It is recommended that wherever possible, whole-class participation is desirable in directed physical activity in the classroom.

C: Recommendations for facilitating improvement in children's speech

Speech training is physical education for the mechanisms of speech, i.e. control of breathing, and flexibility and control of the larynx, the tongue, the mouth, the jaw and the facial muscles required for good clear articulate speech.

To become a successful reader, a child must be able to produce good clear, articulate speech, for the very good reason that when presented with language in printed form, every reader must be instantly stimulated to respond with speech, either audible speech or silent inner speech. Children with poor speech habits are at an immediate disadvantage when learning to read. As stated elsewhere in this project plan, poor speech is a clear indication of poorly developed auditory perception.

- Begin all language sessions with gentle movement activity followed by brief episodes of speech training, i.e. breathing exercises, vocal exercises, flexibility exercises for the tongue, lips, jaw and cheek muscles. Careful and informed observations will reveal that among other things, seriously underachieving children are prone to speak with minimal movement of the jaw, that they often speak through clenched teeth, that they suck in breath in the middle of words, that they indulge in pantomime rather than speak, e.g. covering their lower abdomen with their hands indicating they wish to go to the toilet; that they will never volunteer to contribute to class discussions; that they make corrupt pronunciations, that they have weak language concepts and more.
- Ask children to place their hands on their ribs and to breathe in slowly but not too deeply – then breathe out slowly; repeat two or three times. Make sure that children understand that speech occurs with exhaled breath.
- Then as children exhale, ask them to blow out imaginary candles, to count to ten, then fifteen, and then twenty on one breath. On other occasions, ask them to recite the alphabet, seeing how far they can recite on one breath; slowly extend their capacity. Repetition with variety and ingenuity.
- Ask children to practise tongue flexibility exercises by repeating simple patterns such as laa laa laaa, loo loo loo, lee lee lee, law law law. Repetition with ingenuity.
- Practise lip flexibility exercises such as moo moo moo, mee mee mee, maw maw maw, may may may, blurting like a horse. Repetition with ingenuity.
- Integrate speech training with auditory sensitivity training, with phonics, leading into rhymes and poems, singing and handwriting. Visual and aural presentation of rhymes, poems and songs provide wonderful opportunities for children to acquire vocabulary, word attack skills, develop and reinforce language concepts and to understand sentence construction. It is interesting to observe children "reading" the words of a poem or a song after they have been erased from the chalkboard, as they display their developing visualization and visual memory skills.
- Begin all maths sessions in precisely the same way, i.e. with gentle movement activity to ensure that all children are actively participating, a few moments of breathing exercises, then launch into chanting of counting patterns presented in graphic form, and multiplication tables for older children. Follow on with rapid recall activities aimed at establishing ongoing automatic response to number stimuli. These activities assist in speech development and in keeping children's minds ticking over in terms of number patterns and sequences.

These recommendations and suggestions are intended for whole-class participation before children move to established groups for language and maths.

D: Recommendations and Suggestions for Physical Activities to be used in a sensory/motor, motor/sensory approach to the primary school curriculum

Compiled by Margaret Sasse.

SENSORY MOTOR INTEGRATIVE PROGRAMS

The training procedures in this program are based on techniques that have been used successfully for many years, and are based on the work of many people working in the field of sensory motor development, particularly those working with pre school children.

Participating teachers will have many activities from which to choose, and will be encouraged and assisted to adapt these sequences to their own requirements, including the obligations placed on them by Circular 052/2003 of the Victorian Department of Education and Training *Safety in Gymnastic programs in schools.*

Teachers wishing to extend their programs into gymnastics, will be encouraged to refer to the support units of work provided as part of the online resource: curriculum @ work.

Each unit of the program is made up of a number of suggested training procedures. These suggestions should be viewed as possible inclusions in the normal physical education program in the gymnasium or outside in the playground. They are intended to be extensions of the physical development activities conducted in the classroom, where the emphasis is on stimulating fine to extra fine movement coordination of the motor functions of the central nervous system, while at the same time stimulating the sensory processes of the brain and body.

Under ideal conditions each unit is designed for about forty minutes per day over a four-week period. These are estimated times only; some groups of children may require more than four weeks to complete a unit satisfactorily. Repetition is a key element in skill development, as is skill progression.

Teachers will probably work in teams and require the assistance of other adults, either teachers' aides or volunteering parents on a roster system, carefully prepared with suitable instructions.

A suggested amount of time to spend on each specific activity is set out in the program. Sufficient time should be allowed for organization and changing from one activity to another. The precise amount of time spent on an activity is not as important as satisfactory execution of the procedure.

Children should advance to the more difficult units only when they are <u>ready</u> to achieve at the higher level of competency required. They should be constantly challenged but not to the point where the challenge of a new activity results in failure. One of the teacher's greatest tools is that 'moving and learning can be fun'. It is important that enjoyment should be built into every aspect of the motor program.

Safety will be the first consideration in all the suggested activities

QUICK 15 MINUTES SEQUENCE IN THE GET SMART SERIES

10 counts in Parcel position - squeeze and release
10 Rocks, back and forth, hugging knees (hands under knees initially)
10 Rocks, side-to-side, hugging knees
10 Angels in the sand
10 Half Rolls from side to side, keeping body relaxed
10 ATNR sequence
Roll over and…
10 counts in Superman Pose on tummy, keep knees straight
10 Push Up with deep breathing – pushing head, shoulders and chest off the mat.
10 Homolateral pattern changes from side to side
10 Rocks forwards and backwards on hands and knees in creep position
10 counts in Balance position from creep position, with arm on one side and leg on the other in extension, look at the raised hand, and repeat on the other side for 10 counts
10 Cross pattern changes
10 Push Up with deep breathing – pushing head, shoulders and chest off the mat.
Relax

STRUCTURED PROGRAM ON A FOUR WEEK ROTATION

UNIT 1		4 Weeks
1.	Aerobics including Body Awareness Actions	5mins
2.	Homo Lateral Swimming in place (same side)	5mins
3.	Rolling Activities	2mins
4.	Throwing, Catching & Ball Bouncing	5mins
5.	Relaxation and Deep Breathing	3mins

UNIT 2		4 Weeks
1.	Spatial & Temporal Awareness Aerobics 5mins	
2.	Homo Lateral Commando Crawl (same side)	5mins
3.	Mat Activities: Sit Ups, Push Ups. Allow for readiness	3mins
4.	Creeping on hands and knees	5mins
5.	Relaxation and Deep Breathing	3mins

UNIT 3		4 Weeks
1.	Angels in the Snow	3mins
2.	Cross Pattern Swimming	5mins
3.	Mat Activities: Forward Roll	3mins
4.	Creeping in Cross Pattern	5mins
5.	Relaxation and Deep Breathing	3mins

UNIT 4		4 Weeks
1.	Balance Series aerobics	5mins
2.	Cross Pattern Commando Crawl	5mins
2.	Ball Bouncing Activities: Alternate hands	5mins
3.	Vestibular Activities: Gentle Self Spinning	2mins
4.	Jumping Rope Activities	5mins
5.	Relaxation and Deep Breathing	3mins

UNIT 5		4 Weeks
1.	Jumping, Hopping and Rhythmic Sequencing	5mins
2.	Creeping Activities	5mins
3.	Mat Activities: Include Vestibular Activities	3mins
4.	Creeping with Balance	5mins
5.	Visual: Swinging Ball Activity	5mins
6.	Relaxation and Deep Breathing	3mins

UNIT 6		4 Weeks
1.	Coordination Aerobics	5mins
2.	Creeping: Push off a fixed object behind feet	5mins
3.	Rhythm sticks individually and in a group	3mins
4.	Vestibular Activity: Rolling	2mins
5.	Creeping backwards	5mins
6.	Relaxation and Deep Breathing	3mins

UNIT 7		4 Weeks
1.	Marching to music	3mins
2.	Cross Pattern Creeping to different tempos	5mins
4.	Throwing bean bags and catching games with preferred hand	5mins
5.	Vestibular Activity: swaying side to side	2mins
6.	Visual: Hitting Swinging Ball	5mins
7.	Relaxation and Deep Breathing	3mins

UNIT 8		4 Weeks
1.	Mr. Motor Mouth (Jack Capon) Exercises	5mins
2.	Walking, Marching (Resisted), Galloping (preferred foot leading)	5mins
3.	Balance Beam & Jump Rope Activities	5mins
4.	Creeping with word activity (moving and thinking)	5mins
5.	Vestibular: Upside Down lying across large ball	2mins
6.	Relaxation and Deep Breathing	3mins

UNIT 9		4 Weeks
1.	Mr Motor Mouth	5mins
2.	Creeping (Thinking and Moving)	5mins
5.	Ball Handling Skills Games: Tunnel Ball, Poison Ball, etc.	5mins
4.	Creeping (Thinking and Moving)	5mins
5.	Bowling	5mins
6.	Relaxation and Deep Breathing	3mins

TACTILITY and LEARNING

For a person to achieve an understanding of, and be able to use basic concepts of learning, he or she must have properly developed conscious awareness of his or her body and it's relationship to the environment.

This can only be achieved through an intact tactile system working in conjunction with sensory information arising from joints, muscles and tendons. In this way, tactile stimulation contributes to generalize sensory integration and improved perception in other sensory areas as well.

Some children with learning difficulties experience tactile stimuli abnormally.

For some of them, the message goes through too strongly or in a distorted manner and these children are over sensitive to being handled and tactile stimulation may be unpleasant and arouse ‘tactile defensiveness’.

This will take the form of excessive giggling, rejection or complaints. Others will crave tactile stimulation and will be delighted with it in all forms.

BODY AWARENESS

1. Touch body parts with eyes open, and eyes closed.
2. Touch body parts:

	mouth	legs	ears
ankles	back	chin	hips
	nose	toes	
	neck	wrists	knees
	shoulders	hands	feet
	arms	fingers	heels
	elbows	chest	tummy

3. Children touch body parts with other body parts

nose to knee	wrist to ear	elbow to stomach
chin to chest	elbow to leg	wrist to neck
ear to shoulder	chin to wrist	foot to leg
hands to hips	wrist to ankle	hands to back
elbows to knees	fingers to shoulders	toes to toes
toes to nose	wrist to back	heels to heel

4. Touch body parts to surroundings

head to floor	head to table or desk	ear to chair
hands to wall	back to wall	shoulder to floor
elbows to chalkboard	ankles to wall	fingers to books
knees to floor	nose to window	
stomach to floor		

5. Imitation of teacher with and without demonstration

nod your head	clap your hands	open your mouth
close your eyes	wiggle your toes	click your fingers
twist your neck	wiggle your nose	bend your knees
bend your elbows	shrug your shoulders	stamp your feet

6. State the usage of the body part

I see with my	I clap with my	I shrug my
I smell with my	I snap my	I jump with my
I blink with my	I walk with my	I write with my
I talk with my	I wave my	

7. Callisthenic games: Stand up and stretch for the sky with your arms. Stretch your neck like a turtle. Kick your feet like a donkey. Walk with stiff legs like a wooden soldier. Open your mouth like a lion.

8. Follow the leader.

9. Miming games and activities using body parts.

10. Teach left and right, using stepping-stones. Colour code stepping stones, e.g. left — green, right — red. It may be necessary to tie a coloured matching ribbon on the child's ankle. Alter positions and distances for variety and extension of the activity.

VESTIBULAR STIMULATION

The vestibular centre in the brain stem receives and processes sensations from the gravity and movement receptors located in the inner ears. This information is used to regulate muscle tone, posture, equilibrium and allows us to know where we are in space, whether we are moving or still, how fast we are going and in what direction.

The vestibular system also interacts with and processes information from all the other sensory systems - visual, auditory, tactile and from muscle and joint sensation. Seldom are we consciously aware of vestibular input except when we feel dizzy following rotation and our surroundings appear to be spinning around us.

Activities to promote integration (organization) of vestibular sensation are therefore a very important part of any motor sensory programme. Improvement can be expected in many areas due to its 'unifying' control of sensory input. Control of eye movements, auditory responses, coordination of movement, orientation and awareness of space can improve as a result of vestibular stimulation programs.

At the extremes of tolerance to vestibular activity, children tend to fall into two groups. Some crave for more and more vestibular activity such as swinging, spinning, etc. and have little or no dizzy reaction while others cannot tolerate these activities to any great degree or at all. For those children with poor tolerance, activities, which they can control, are more acceptable, e.g. spinning and turning themselves on a scooter board or on a swivel chair or swing with feet touching the ground, rather than having someone else controlling the spinning of them. As sensory input becomes more normalized by the vestibular system, children who could not tolerate excessive stimulation become more able to cope with this stimulation and those children who were able to tolerate excessive stimulation tend to respond more appropriately.

The vestibular activities need to take place with the head and body in many different positions in order to activate the many vestibular receptors.

VESTIBULAR /BALANCE ACTIVITIES

1. Rolling on the floor - in tubes, in a rug, up and down slopes
2. Rolling on large balls, over barrels
3. Upside down - shoulder stands, hand stands, hanging head over the end of a lounge chair, etc.
4. Jumping boards
5. Rebounder
6. Gentle spinning in a swivel chair, or the student's 'bottom' on a slippery floor, or standing turning around, by swinging the right arm up and around if turning to the right and the left arm if turning left, etc.

PLEASE NOTE:

All spinning activities should be done slowly, about one revolution every two seconds, ½ minute to the right and ½ minute to the left. Always built up from shorter duration to longer sessions.

Do not follow one vestibular activity with another. These activities need careful sequencing within a programme in order to avoid over stimulation.

The following is reprinted from an article by Sally Goddard, author of 'A Teachers Window Into A Child's Mind', which gives an excellent description of the primitive and postural reflexes and their influence on Literacy and Numeracy.

'The first of all senses to develop, is the sense of balance. It is vital for posture, movement, and a sense of 'centre' in space, motion, depth and self. All other sensation passes through the balance mechanism (vestibular system) at the brain stem level before it is passed on to its specialized region higher in the brain. Hence, all the other senses, which a child will depend upon for learning, are linked to balance.

To the newborn baby, perception and motion is the same thing. He is not aware that sound and movement, vision and touch are separate sensations; as for him they all fuse together as a single experience or feeling. Thus motion is the child's first language, and the more eloquent he becomes in his primary language; the quicker he will develop other powers of expression, exploration and development.

Stimulation of the balance mechanism is an integral part of the embryo's growth from the moment of conception. Every movement that the mother makes is felt in the cushioned environment of the womb. After birth the feelings continue to be sensed through a vast repertoire of movement patterns from lying, kicking, rolling and sitting, to crawling and creeping, on the hands and knees, walking, running hopping, skipping, swinging, rolling and tumbling. It is through movement that further connections are made between the vestibular apparatus and higher centres of the brain. It takes until the age of 7-8 years for the balance mechanism, the cerebellum and the corpus callosum to be myelinated, and it is during these early years that vestibular stimulation is the natural ingredient in every normal child's play.

The infant begins with constant repetition of arm and leg movements practicing extension and

flexion of the muscles and training hand-eye coordination. The 8 month old child who rolls back and forth, across the floor with no particular goal in sight, is preparing her balance for sitting, standing and eventually walking. As far as she is concerned, when she moves, the world moves with her, and when she stops the world stands still once more.

Creeping on hands and knees then acts as an important bridge, enabling her to combine the use of her vestibular, proprioceptive and visual systems for the first time. Walking then increases not only mobility, but allows her to roam with independent use of the hands. These are the early building blocks for learning, which must then be practiced and integrated with other systems. Thus, in the early years, movement is the child's main vocabulary and language is body based. Voluntary control of movement can only develop through the broadening of movement horizons.

The 3 – 6 year old child who constantly hops, skips and twirls while 'walking' down the street, is still learning to control her balance, for the most advanced level of balance is the ability to stay still. The action of NOT moving requires whole body functions and muscle groups to operate together without continuous adjustments and signifies the advent of mature postural control.

ROLLING

PURPOSE

To stimulate the vestibular receptors and to develop gross motor and postural control, thus improving orientation in space and coordination.

PROCEDURE

1. Lie on back on floor. Eyes open, stretch arms out above head (on floor) hands clasped. Roll over onto stomach by first lifting and turning head in direction of turn, and then shoulders; trunk and rest of body will follow. Turn from front to back. Stop. Then back to front. Stop. Repeat for required length of time of programme.
2. Encourage use of open visual awareness of objects in room within his vision. What can child see as he rolls?
3. Roll over and over along length of room with added specific visual sighting of objects at end of roll.
4. As in 1,2, and 3, but with hands by side.
5. Controlled rolling along line (masking tape, etc.) with head remaining on line during roll. Then repeat with shoulders in contact with line etc.
6. As in 5, but with 2 lines for shoulders and hips. Add object to sight at eye level, then with hips and knees on the lines. Then try and keep knees and ankles on the lines.
7. Roll with one arm extended overhead and other held by body.
8. Half roll from side to side. Remember head leads roll and keeps contact with floor for the duration of the exercise.
9. Half roll in pattern. Arm and leg on one side end up in a "swimming in place" position.
10. Full roll with eyes closed, maintaining movement in a straight line.
11. Full roll, eyes closed in the direction of a sound.
12. Roll sideways along the mat with the body rolled up like a ball, arms around the knees and the head curled towards the knees.
13. Alternate two straight and two curled rolls.
14. Alternate one straight and one curled roll.
15. Roll up and down small, improvised slopes e.g. one mat rolled up tightly and placed underneath the mat to be rolled on.

MAT ACTIVITIES

1. Creeping – forwards and backwards
2. Log Rolling - arms by side or arms above head, one arm above head etc.
3. Dog Walk - walking on all fours

4. Lame Dog - using two arms and one leg - change legs
5. Gorilla Walk - bend forward, hold ankles with hands - walk forwards
6. Top Spin - quarter, half, three quarter, full spin. Start with feet shoulder distance apart and hand on hip. Child spring jumps into air and turns required turn.
9. Bear Walk - on all fours, moving same leg and arm.
10. Egg Roll - kneeling position with arms crossed and elbows resting on mat, head on mat. Child rolls sideways
11. Forward Roll - squat position – feet a little apart, hands on mat, tuck in chin, raise bottom and roll with back of head touching mat
12. Crab Walk - on all fours but front uppermost
13. Sit Ups - on back, on mat - rise to sitting position not using arms, may be necessary to lift head then proceed to lift shoulders and eventually rise to a sitting position
14. Seal Walk - on front with hands placed on mat directly under shoulders - arms stiff – feet dragged along behind
15. Reaction Drill - react to verbal directions: lie on your back, front, left side, right side, stand on your feet, kneel, sit. Change positions as quickly as possible

16. Modified Push Ups on hands and knees position. The body is lowered slowly by bending arms until nose touches mat. Push slowly up to starting position.

MOBILITY PROGRAM IDEAS

a) Homolateral & Cross Pattern Swimming (also called crocodiles)

Aspects to be emphasized:

1. The head, arms and legs move together as a unit, smoothly and rhythmically.
2. The eyes fixate on the nail of thumb.

When the child has become proficient in the basic movements of crawling on their front and creeping on hands and knees in pattern, then thinking and moving can be commenced such as:

It is important to use counting sequence patterns suitable for the child's own level.

1. Counting forwards — 1 2 3 4 etc. 2 4 6 8 etc. 10 20 30 etc.
2. Counting backwards — 10 9 8 etc. 100 90 80 etc.
3. Saying tables, reciting the months of the year, spelling words.
4. Perform with eyes closed but have child fixate closed eves on the thumb.
5. Say right and left to develop direction and orientation in space.
6. Use a metronome, tapping sticks, clapping, etc. to provide auditory cue and for the development of rhythm

b) Commando Crawl: Homolateral and Cross Pattern Tiger Creep

The purpose of this exercise is to promote integration of the two sides of the body through sensory stimulation and movement. It is an important time for visual development as well as the exercise promotes the development of accurate and smooth visual fixations as the eyes shift fixation from one hand to the other.

Obviously the floor is a consideration and a carpeted or foam (i.e. mats in a gym) surface is preferable.

A creeping track can be made from two strips of masking tape 4 meters in length and approx 20 cm apart holding down a plastic strip with word slots set up at the correct distance for each hand placement.

All sorts of visualization or auditory games can be incorporated with creeping. Remember

that temporal awareness is the rate, rhythm and sequencing, vital to learning.
Coloured stickers for back of hands for younger students can be helpful.

Aspects to be emphasized in creeping:

The opposite hand and knee must land on the floor at the same time.
Toes must drag (be on the floor) and the fingers together with thumb out.
Movement must be smooth and coordinated.

Finally the head must turn to look at the forward hand, which must remain straight and not bent at the elbow as this designates a retained reflex.

Creeping resisted forwards. Head up is important in resisted creeping and of course the maintenance of the correct pattern.

Creeping with balance as follows:

Normal cross pattern creep, if possible to a steady but varying beat with metronome or music. Every four beats (this can vary) ask the child to stop to balance on opposite knee to hand, stretching the other leg straight out behind and the other arm straight out, forwards and upwards, head up, looking at the raised hand. Hold for 1,2,3 or 4 beats. Then continue creeping.

Suggested progression for the stages of crawling and creeping:

Homolateral Static Swimming & Homolateral Commando Crawling

Cross Pattern Static Swimming & Cross Pattern Commando Crawling

Creeping on hands and knees – first aim for coordinated movements before fine tuning all aspects of this activity.

Creeping backwards

Creeping against resistance forwards, then backwards.

Creeping with balance or can be done initially by just calling ‘FREEZE’.
Eyes closed and use auditory commands.
(Use of metronome for development of rhythm.)

WALKING AND MARCHING actions are cross pattern activities, and should be included in any initial ‘Aerobic’ exercises. Include walking/marching forwards, backwards, sideways, eyes open, eyes shut etc.

WRITING – POSTURE

Correct posture for sitting tasks is important. Poor posture can cause tension, fatigue, visual problems, perception difficulties, poor spontaneous written expression, poor writing form, dislike of writing.

Generally for writing the following points are important:

If copying from the teacher’s model, children should all be seated facing the chalkboard.

To sit up with the body weight being absorbed by the thighs, buttocks pushed into the back of the chair, feet flat on the floor, arms resting on a table and the back allowed to assume its normal slope.

The distance from the nose to the paper should be approximately equal to the distance between the elbow and the first knuckle.

PENCIL GRIP:
The pencil should be held between the thumb, index finger and third finger and be resting in the crotch of the hand, held loosely and easily approximately one inch from the point so that it can be easily seen with **both eyes.**

DESK SURFACE:
A flat surface can cause tension in the neck and shoulders and thus fatigue. The writing surface should be sloped at 20 degrees. This sloped surface ensures the child's head automatically becomes parallel to the work surface.

PAPER POSITION
For the right handed child: Paper angled approximately 45 degrees with an imaginary line from the right side top corner to the lower left side corner of the paper pointing to the child's midline. The child's right hand should be held straight with pencil, wrist and forearm in line with each other.

POSITION OF THE NON-WRITING HAND
In order to ensure accurate spatial clues it is important that the muscular clues and visual clues match. The convergence mechanism of the eyes will follow the body's signals; therefore the non-writing hand should be at the top of the paper as he writes. This also provides postural support and helps prevent unnecessary postural tension and pressure on the pencil, which cab be reflected in smaller letters and cramped writing.

HEAD POSITION:
If a child moves his head consistently when writing it indicates that he is constantly making perceptual adjustments. The head should be positioned so that each eye is equidistant from the paper. With the correct paper and arm position there will be automatically a very slight inclination towards the left for a right-hander and to the right for the left-hander.

BLACKBOARD ACTIVITIES

WRITING/SPELLING

Activities on the blackboard are excellent as pre writing activities and for spelling. These activities involve the use of the child's tactile system and develop the feeling of movement, control of movement and visual monitoring hand activity. They also assist in the development of spatial awareness through proprioception and kinesthesis, body directionality and, finally, the concept form.

Tracing over shapes and later letters, then words with the forefinger many times and then with different coloured chalks adds further tactile and visual input. To incorporate the auditory input — name the shape, letter or words as he does this. No direct copying is used in this technique, it is important that the blackboard is cleaned before asking for a reproduction of the shape, letter or word, To ensure success ask the child to reproduce it in the air first with eyes closed. If this is done incorrectly, stop and repeat the tracing over. This is not an auditory sequence exercise and it is important that the child says the whole word or the syllables as he traces it over. This can then be done on large paper. Children with perceptual dysfunctions will require a basic sensory motor integrative program in conjunction with this technique.

As a child's perceptual ability improves, he will tell you he does not need to trace over anymore. He can look at it and can commit the word to visual memory and then write it correctly in his book. It is important that children learn to place themselves directly facing the blackboard, not too near, and in a well-balanced position with feet apart, which facilitates natural shoulder, arm, elbow, and hand movements and allows correct posture.

Observation about Vision

Blackboards at the correct height should feature in all infant grade classrooms.

MINI ACTIVITIES FOR THE CLASSROOM CHILDREN AT THEIR DESKS

Suggest that children use a slap board (sloped writing attachment to a flat surface). Slap boards are small chalkboards but cause the child to use a full arm and shoulder for more direct sensory input to help their learning as it involves the gross motor muscles. This is particularly important for children who have poor integration of their sensory inputs.

Excellent times for the use of chalkboards are explained in the following programs

Program A (Focus on KATV)

Encourage children to sit with correct posture for reading and writing activities.

Practice manuscript or cursive letters with correct letter formation.

Do rhythm-writing patterns

Program B (Focus on midline and vision)

Drawing figure of eights to encourage crossing the midline, then draw in air following with eyes.

Introduce KATV (Kinaesthetic Auditory Tactile Visual Writing technique)

The CLOCK game
Draw a clock on your chalkboard. Using two hands starting with both on a number (on opposite sides) move right hand to left and left hand to right to point to different numbers on the clock. Must move simultaneously and smoothly.

Visual tracking with eyes only, no head movement. Provide large clock on piece of paper or chalkboard. Keep peripheral vision open – what do they see.

Program C (Focus on cross pattern fine motor and auditory)

Tapping on one knee then cross pattern using both hands to tap body parts in rhythm (p112 S'ool Moves)
Listening ears (p51 S'ool Moves)
Cross elbow to knee to improve balance while standing and recite days of week, numbers, months etc.
Sit and pat with two columns of words on the blackboard (p123 S'ool Moves)
Palm reversals on lap or desk – aim no movement of the elbows.
Alternate finger activity to verse, appropriate to age.
'Five little fingers going for a walk'……suitable for Primary grades
Open shut hands alternately
Neck rolls
Use a metronome or tape of a metronome to get children to tap their desk to the beat.
Play baroque music for consistent calming background
Concept work can be included with body awareness.
The above can be done as many times as needed if the class is unsettled.

AUDITORY RHYTHMIC SEQUENCING

Tapping patterns, some soft some loud i.e. with older children try the Morse code

Students close eyes and imitate clapping sounds made by teacher.
e.g.: Two fast claps, pause, two fast claps. Or Two fast claps, pause, one clap and so on.
Stamping the feet and snapping the fingers can also be included in this game.

AUDITORY – VISUAL MATCHING

Place tapping sequences on a card – tap out one of the sequences and ask children who have that sequence to raise their hand.

AUDITORY – SPATIAL

This is taught by asking children to say if the sound is coming from left or right etc. Place sounds in space. With the students blind folded or eyes shut, this can be a fun game, especially for little ones. Where is the noise coming from???

AUDITORY SEQUENTIAL

Following instruction – these to get progressively more difficult i.e. Draw up a sort of tic tack toe on a sheet of paper and be instructed to place a letter, circle, cross in a specific square – on the right side etc.

AUDITORY DISCRIMINATION

Identification of similar sounding words such as yield/field fault/vault bat/bait
Stump/stumble, control/patrol slag/wag sing/swing wattle/waffle those /chose
Lime/slime grim/grime crude/rude advice/devise drove/rove dew/drew ship/stop

ACTIVITIES TO DEVELOP
ROLLING, THROWING & PAT BOUNCING

1. Move the ball along the floor with a variety of body parts - hands (left and right) feet (left and right), head, knee, elbow, etc.
2. Repeat this activity using a variety of equipment — e.g. cardboard cylinder, rolled up newspaper, small bat, panty hose bat.
3. Move the ball along the floor with hand, stop with foot. Use variety of different body parts to roll ball and stop with different body parts.
4. Roll ball quickly along floor - run to overtake the ball.
5. Roll ball around Obstacle Course with variety of body parts.
6. Throwing balls at targets use variety of balls starting with e.g. foam, paper, sock, balls, and beanbags.
7. Throw into or at targets, e.g. tin, boxes, plastic containers, baskets, milk cartons, etc.
8. Use balloons for introduction to throwing and catching for young children. Throw into air with both hands and catch with both hands - pat into air with preferred hand, catch with both hands - pat into air with non-preferred hand, catch with both hands.
9. Pat balloon into air with one hand at a time, keep balloon in the air as long as possible - move balloon in air to rhythm of music.
10. Suspend large balls in panty hose - swing, throw and catch with two hands.
11. Stand a tyre upright or suspend a tyre for use as a target.
12. Roll the tyres and use them as moving targets.
13. Lay tyres down and throw beanbags into them.
14. Bouncing - hold the ball with two hands, drop and catch - hold the ball with two hands, drop hand and catch - bounce and catch the ball a given number of times.
15. Stand in one place and pat bounce ball with preferred hand. Pat bounce ball while

travelling along. Repeat with other hand.

16. Stand in one place, pat bounce, using alternate hands. Pat bounce ball while travelling along.
17. When the above skills have been mastered the child can then work with the teacher or a partner - rolling, throwing, catching, bouncing and catching.

CATCHING TIPS

Depending on age level, give the child the following instructions while catching and throwing the beanbag:

1. Look directly at the other person, not at the beanbag.
2. Keep your peripheral visual field open to be aware of as much as possible in your surroundings.
3. Let your hands react to what your eyes see; do not force the catching, hitting or throwing - let it happen!
4. Feel your arms and body responding. You will be amazed at how automatic ii feels. You catch without trying — it just happens.
5. Toss the beanbag in an underhand throw.
6. As your catching becomes more proficient, look away from your partner by looking at each of the nine primary positions each time you throw or catch the beanbag.

a. Straight ahead and down.
b. Straight ahead and middle.
c. Straight ahead and up.
d. Right down.
e. Right centre.
f. Right up.
g. Left down.
h. Left centre.
i. Left up.

7. As proficiency is gained in throwing and catching, throw in a cross pattern throwing pattern. The cross pattern throwing pattern for the right-handed child as follows:

a. Beanbag held in right hand.
b. Right foot forward, left foot back.
c. Right arm back, left hand forward with fingers pointing to the other person.
d. As the child throws he is to step forward with his left foot, his right arm swings forward releasing the beanbag, and his left arm swings back and up - all is to happen at the same time.

8. When catching a hard ball look at the ball and maintain awareness of your peripheral visual field.

BEAN BAGS ACTIVITIES

I. Make up beanbags in three different colours, e.g. read green and white.
2. The red represents the right hand, the green represents the left hand and the white represents both hands.
3. The procedure's as follows:

a. The red beanbag is thrown to the student and he is to catch it with his right hand.
b. The green beanbag is thrown to the student and he is to catch it with his left hand.
c. The white beanbag is thrown to the student and he is to catch it with both hands.
d. When the child shows proficiency and no confusion do the following:

(1) Hold the beanbags behind your back.
(2) Throw one beanbag to the student.
(3) Student responds by catching the beanbag with the appropriate hand, directed by the colour of the beanbag,
(4) Repeat the procedure until the child can quickly and accurately respond to the visual stimulus of the coloured beanbag.

BALL BOUNCING ACTIVITIES

PURPOSE

To improve visual- spatial predictions and eye-hand coordination.

EQUIPMENT

Two rubber balls, about the size of tennis balls; a ping-pong ball.

PROCEDURE

Ask the student to open his or her arms wide in between each catch or bounce, as this is the appropriate time it takes for the ball to bounce.

1. Ball bounce with alternate hands: When able to bounce ball with both right and left hands individually, alternately bounce the ball from right hand to left hand. Try to keep bouncing the ball within an 18" square on the floor.

2. Ball bounce under leg: Bounce the ball continuously on the floor. On every fourth bounce, swing leg over the ball. Use alternate legs on each fourth count. Also practice using non - preferred hand.

3. Ball, bounce in the circle: Two players are needed. With chalk or masking tape, make 5 circles or squares about one foot in diameter on the floor and arranged in a straight line between the two players. Each circle is to be numbered. The assistant calls a number and the pupil is to bounce his ball to the assistant by throwing it at the square called. The pupil then is to call a number and the assistant is to follow suit, with the pupil catching the ball.

5. Ball bouncing and catching against the wall: Throw the ball against the wall and catch it as it bounces off. Also, throw the ball at the junction of the wall and the floor, bouncing it off the floor onto the wall and catch. Then try bouncing it off the wall onto the floor and catch.

6. Student to hold a ping-pong ball in one hand and a tennis ball in the other. The pupil is instructed to toss first one, then the other to the ceiling, attempting to come as close as possible without actually hitting it. Alternate the two balls from one to the other.

ASPECTS TO BE EMPHASIZED

1. When there is difficulty sustaining ball bouncing with either hand, start with ball bounce and catch, until adequate skill develops for bouncing.

2. Accurate tossing of ball into squares, at wall, to ceiling etc. and awareness of inaccuracy by pupil.

Maintain awareness of the rest of the room, or the working area.

BALANCE BEAM ACTIVITIES
Remember that 'Imbalance Leads to Balance'

It is suggested that balance beam activities may be conducted on a L3 m x W10 cm x 75 mm beam resting on the floor – surrounded by mats, or a beam L3 m x W200 mm x 50 mm at a height of 150 mm off the floor surrounded by foam mats.

1. Walk forward on beam, arms by side. Repeat backward.
2. With arms by side, walk to the middle, turn around and walk backward.
3. Walk forward to the middle of the beam, turn, and walk the remaining distance sideways to left with weight on the balls of the feet.
4. Walk to centre of beam, turn, and continue sideways to right.
5. Walk forward with left foot always in front of right. Repeat backward.
6. Walk forward with right foot always in front of left. Repeat backward.
7. Walk forward with hands on hips. Repeat backward.
8. Walk forward and pick up a beanbag from the middle of the beam.
9. Walk forward to centre, kneel on one knee, rise and continue to walk to end of beam.

10. Walk forward with beanbag balanced on top of head. Repeat backward.
11. Place beanbag at centre of beam. Walk to centre, place beanbag on top of head, continue to end of beam.
12. Have partners hold a dowelling rod 30cm. above the centre of the beam. Walk forward on the beam and step over the rod.
13. With rod still held 30cm. above beam, walk backward and step over rod.
14. Hold rod at height of 1.5 meters. Walk forward and pass under it. Repeat backward.
15. Walk the beam backward with hands clasped behind the body.
    Walk the beam forward, arms held sideward, palms down, with beanbag on the back of each hand. Repeat backwards.
18. Walk the beam sideward to right, with weight on balls of feet. Repeat, except go to left.
19. Walk forward on beam, bounce and catch ball on right side of beam, continue to end.
20. As above, bounce and catch ball on left side of beam.
21. Bounce and catch ball continuously on alternate sides, walking forwards along the beam.
22. Throw ball into air and catch, walking forward along beam. Repeat backward.

JUMPING ACTIVITIES

1. Jump, two feet together: forwards; backwards, sideways.
2. As in 1, controlled, along line on the ground.
3. As in 2, in sequence, to a regular beat.
4. Jump from right to left to right across line: forwards, backwards.
5. As in 4, in sequence, to a regular beat.
6. Jump sideways to right forwards and backwards across line. Repeat, jumping to left
7. As in 6, in sequence, to a regular beat.
8. Activities 1 to 7 performed with eyes closed.

JUMP ROPE ACTIVITIES

1. Jump continuously over a rope held approximately 15cm. above the ground
2. Jump over a rope being swung in a small arc.
3. Jump over rope as it is being turned forward. Repeat, turning rope backwards.
4. Pupil turns rope him/herself, skipping continuously, synchronizing movement of arms and feet. Repeat backwards.
5. Introduce skipping with a small rebound jump between each turn of the rope, forwards. Repeat backwards.
6. Skip, running on the spot right leg leading. Repeat, left leg leading. ,
7. As in 6, turning rope backwards.
8. Activities 4 to 7 performed with eyes closed.
9. As in 4 and 5 skip on one leg. Repeat other leg. Repeat, eyes closed.

SPATIAL ORIENTATION - DIRECTIONALITY

1. Direct the children to point in front of them, to the side, to the top and bottom of objects in the room.

2. Direct children to point to objects in room:
   (a) eyes open — Point to the door, to the blackboard,
   (b) eyes closed — cupboard, etc.

3. Point above, below, over, under, between objects in the room:

   over the door — over your shoulder
   below the window — above the pictures

under the chair
between the desks
below the chalkboard
between the books

4. Move designated part of body in specific direction:

put your finger up
put your head down
put your arms between your legs
put both hands on the same side of

5. Direct child to move body in relation to objects in the room:

stand in front of the table,
stand with the windows behind you
move so you are under the table move so the door is in front of you
move so the door is behind you
move between two chairs

6. Set up an obstacle course: include something to crawl through, to walk under, to step over, to step onto etc.

7. Reinforcement of left right hands, feet; tie coloured ribbon on preferred hand and ankle.

(a) eyes open — raise left, right hand
(b) eyes closed — stamp left foot, right foot etc.

8. Instruct children to walk, creep, hop, skip, jump, run, tiptoe:

(a) to the right
(b) to the left
(c) forward
(d) backward
(e) sideways

9. Look and point to different sides of the body:

(a) Look to the left side
(b) Look to the right side
(c) Point to the right side of your head
(d) Point to the left side of your head
(e) Point to your right foot

10. Point to the left and turn in a complete circle to the left. Repeat to right.

NO CHILD SHOULD FAIL

A sensory motor approach to literacy as an intervention strategy for underachieving children – particularly children who are socially, economically and educationally disadvantaged.

FINAL REPORT FROM THE RESEARCH TEAM

The above report is a combination of data provided in previous interim reports and the statistical analysis undertaken by Dr. David Rawlings, Psychologist (recently retired from the Department of Psychology at the University of Melbourne.)

Further insights have been added in the Conclusions, along with Recommendations.

This report should be seen in conjunction with that provided by [redacted]

Unfortunately it took longer to do than anticipated, so that there has been insufficient time to combine them into one. This can be done later for publication purposes, providing all parties can agree on the final draft.

Dr. Gordon Young.

Abstract

The research reported here is part of a total project, exploring the effectiveness of a Sensory-motor and speech development approach to reading in primary schools compared with contemporary methods used in State Primary Schools. Two independent teams were formed. These worked in cooperation and were coordinated to conduct a training program on the one hand and a testing and analysis program of the results on the other. The research design, shown at Figure 1, was also worked out by the two teams, so that an appropriate experimental approach could be used to differentiate between the results of the training and application of the Sensory-motor and speech program, called the Special Reading Program for the purposes of this Research, compared with the Standard Reading Program.

The research incorporated five schools, with a single different grade level at each school selected from Grades 1 to 5. Within each school two classes at the same level were randomly selected and the permission was obtained from the teachers and the parents of the children to participate.

A further random selection was planned in each class of the children who would be involved in the pre-test/post-test group, compared with those who would be involved in the post-test only. This latter selection was made to examine if a test-practice factor influenced any measurable improvement.

Standard Reading	Sub-group 1	Pre-test	Standard Program	Post-test
Program Class	Sub-group 2		Standard Program	Post-test
Special Reading	Sub-group 1	Pre-test	Special Program	Post-test
Program Class	Sub-group 2		Special Program	Post-test

Figure 1 – The Research Design

The Project Team comprised of [redacted], former State Primary School Principal, Mrs. Margaret Sasse, Founder and Director of Toddler Kindy Gymbaroo International and Child Development Consultant and Ms. Marianne Schriever, Child Development Consultant and former Primary School Principal. They were involved in conceptualizing the approach and developing the training program and handbooks, based on their various experiences and expertise involved with young and primary aged children. This was backed with a substantial body of knowledge identifying sensory motor and speech development as crucial to the development of the brains of children and their cognitive capacity, including the ability to read.

The second team consisted of Dr. Gordon Young, Educational Consultant, Mrs. Denise Young, Educational Consultant and latterly Dr. David Rawlings, Psychologist. They were responsible for the testing program and the processing and analysis of the results, including an analysis of variance.

With the financial support of the Director of the Mornington Peninsular Shire Communities Organisation and the R. E. Ross Trust, the entire project was able to proceed.

With the permission of the Victorian Department of Education and Training and with the cooperation of the Director of the Southern Region and the Principals of the Primary Schools, primary schools were selected randomly until five could participate. These schools are identified in the body of the report. Parents were

At Grades 1 and 2, the Reading Progress Test 1 was used for the Pre-testing. For Grade 1 the same test was used, as the norms for Test 2 were not appropriate at that level. Test 2 was suitable for and used for Grade 2.

For Grades 3, 4 and 5, the Progressive Achievement Tests in Reading were used for both Comprehension and Vocabulary. Form 1 was used for the pre-test for all three classes. Form 1 was used again for Grade 3 for the post-test, as the Form 2 norms did not accommodate this grade level. Form 2 was used for the post-test for Grades 4 and 5

The results showed a marked improvement in Grades 1 and 2, in which the Special Reading Program classes were shown to be behind the Standard Reading classes at the beginning of the year. This difference was shown by analysis of variance to be statistically significant. After nearly ten months of schooling, the two classes using the Special Reading Program had on average caught up to, and in the case of Grade 2 had slightly surpassed, the respective classes using the Standard Reading Program. This is shown in Figure 1 in the general analysis, on Page 7 below.

Analysis of Variance was conducted for Grades 3, 4 and 5 classes with mixed results. At Grade 4 the differences in Comprehension and Vocabulary were not significant. At Grades 3 and 5, however, the differences in favour of the Special Reading classes were statistically significant for Comprehension ($t=1.76$, $p=.096$) but not for Vocabulary.

Combining the results at these three levels, however, an interesting result did occur. Because there was an opposite trend at Grade 4, there was no statistically significant difference in the results for the combined levels in Comprehension or Vocabulary.

In considering the practice effect on using reading tests with the same or different forms, the analysis of variance showed there were no statistically significant differences between the Pre-test/post-test groups and the Post-test groups, either by individual grades or collectively.

A multivariate analysis of variance was also undertaken using the combined scores of Grades 3, 4 and 5. Using Comprehension as a dependent variable, time had a strong effect as the children did much better on the post-test than the pre-test. The interaction between Time and the Programs showed the children improved more within Special Reading Program than the Standard Reading Program. This is shown in Tables 12 and 13. A graphic picture of this is also shown at Figure 2 in the general analysis, on Page **.

When the same analysis was undertaken for Vocabulary, the interaction was very close to zero, signifying little or no difference between the two programs.

An examination of the general analysis below provides data, grade level by grade level. Generally speaking this supports the sensory-motor-speech approach over the standard reading programs, that tend to focus on whole word approaches to reading, supported by some phonics, oral reading and reading exercises.

In a report published in September 2007 by McKinsey & Company, entitled “How the world’s best-performing school systems come out on top” Barber and Mourshed analyse the factors that lead to best performance.

The relevance of the report to this study, however, relates to the training of teachers in any new approach to curriculum. Barber and Mourshed make some valuable comments concerning this that are quoted at the end of this report.

It is important to note that the improvements brought about by the sensory-motor-speech approach provided by [redacted] Sasse and Schriever were all the more noteworthy. Using Barber and Mourshed criteria for achieving a change in performance of teachers it can be seen that the Project Group were inhibited by the research design, since they had limited to instruct the teachers involved, no access to the teachers in an ‘authentic setting’ to do this and the fact that the teachers involved were isolated in individual schools, sometimes in “competition” with experienced and motivated teachers.

If the Sensory-motor-speech approach is to be established further, it would desirable to follow the recommendation at the end of this report.

Grade I, [redacted]

The Reading Progress Test 1 (Comprehension) was given to a randomly selected group of children, as a pre-test, in each of the Special Reading Program Class (Special RPC) and the Standard Reading Program Class (Standard RPC). The results are shown in Table 1 below:

Special RPC	Average Standard Score 96.5	Range 92 –100
Standard RPC	Average Standard Score 92.2	Range 80 –109

Table 2 – Pre-test results Grade 1.

When a child's reading age is equal to its chronological age the Standard Score is 100.
The average standard scores of these two classes fell below 100 indicating that the average reading ages of the children were both already below their chronological ages.

The ranges, however, indicated that there was a diversity of reading achievement amongst the two classes, with a greater range within the Standard Reading Class.

These results were then converted to percentile ranks and stanine scores and totalled and averaged for the various groups. The average percentile ranks and average stanine scores of the post-test results of randomly selected children given the pre-test in each class were also compared with the pre-test results only and the differences shown in the third line in Table 3 & 5 to 11 below.

The Average %ile Rank is the average of all of the %ile scores of the children in the respective group. A %ile Rank indicates the percentage of children who would score below that rank. A stanine score ranges from 1 to 9 with five as an average and four standard deviations either side of that to fit a bell shaped curve. The differences shown in the tables 3 & 5 to 11 indicate the lift in average percentile ranks and stanine scores beyond a year's achievement.

The average improvement in percentile ranks and average stanine scores of the post-test results of all the children in each class were also compared with the pre-test results only and the differences shown in the fourth line in Table 3 & 5 to 11 below.

SPECIAL READING PROGRAM CLASS			STANDARD READING PROGRAM CLASS		
	%ile	stanine		%ile	stanine
Selected pre-test /selected post-test	22.4	1.4	Selected pre-test /selected post-test	13.6	1.2
Selected pre-test /All post-test	10.97	.82	Selected pre-test /All post-test	14.7	1.2

Table 3 – Percentile ranks and stanine scores of the two groups within each Grade 1 class.

Points to note:

1. Greater improvement amongst the Selected Pre-test/Children in the Special Reading Program compared with the equivalent children in the Standard Reading Program.

2. The overall lower performance Pre-test/post-test in the Special RPC compared with the Standard RPC can be mainly explained by the small size of the groups and the influence of the children who only did the post-test. In the case of the Special Program class there were three of these who performed average to below average, pulling the averages down, whilst in the Standard Program class there was only one child in this category who performed well above average pushing the average up.

3. When the data was subjected to a statistical analysis using t tests on SPSS, the difference in performances of the two classes was not statistically significant. It was noted that the numbers in the classes provided very small groups for any sort of statistical analysis.

Grade 2, [redacted]

As for Grade 1 The Reading Progress Test 1 (Comprehension) was given to a randomly selected group of children, as a pre-test, in each of the Special RPC and the Standard RPC. The results are shown in Table 1 below:

Special RPC	Average Standard Score 96.5	Range 85 – 111
Standard RPC	Average Standard Score 110.4	Range 83 - 123

Table 4 – Pre-test results Grade 2.

The average standard score in the Special RPC showed the average reading ages of the children fell below their chronological ages, whereas the average standard score in the Standard RPC fell well above their chronological ages, giving them a head start for the ensuing year.

SPECIAL READING PROGRAM CLASS			STANDARD READING PROGRAM CLASS		
	%ile	stanine		%ile	stanine
Selected pre-test /selected post-test	44.8	3.00	Selected pre-test /selected post-test	19.25	1.16
Selected pre-test /All post-test	45.7	3.17	Selected pre-test /All post-test	5.84	.18

Table 5 – Percentile ranks and stanine scores of the two groups within each Grade 2 class.

Points to note:

1. There is a difference here in favour of the Special RPC over the level of improvement compared with that of the Standard RPC, both in the Selected pre-test/selected post-test comparison and when the Pre-test results are compared with all of the Post-test results for the whole class.

2. This meant that the Special RPC, although starting behind the Standard RPC by on average 35.4 percentile ranks, made up ground, ending up on average 4.46 percentile ranks above the Standard RPC. The results for the Special RPC also show a consistency of results.
3. There was also an inconsistency of results within the Standard RPC, pointing to less improvement over the entire class, compared with the randomly selected group who did the pre-test and post-test.

4. While there were some randomly selected students who improved markedly in the Standard RPC there were others who made less than a satisfactory gain over the year putting them behind relative to their peers. This meant that the differences in their percentile ranks and stanine scores were negative, pulling the average for the class down.

5. Despite the Special RPC starting well below the Standard RPC, the multivariate analysis of variance showed no significant difference because both classes ended up at a similar point. This can be shown in graphic form as follows:

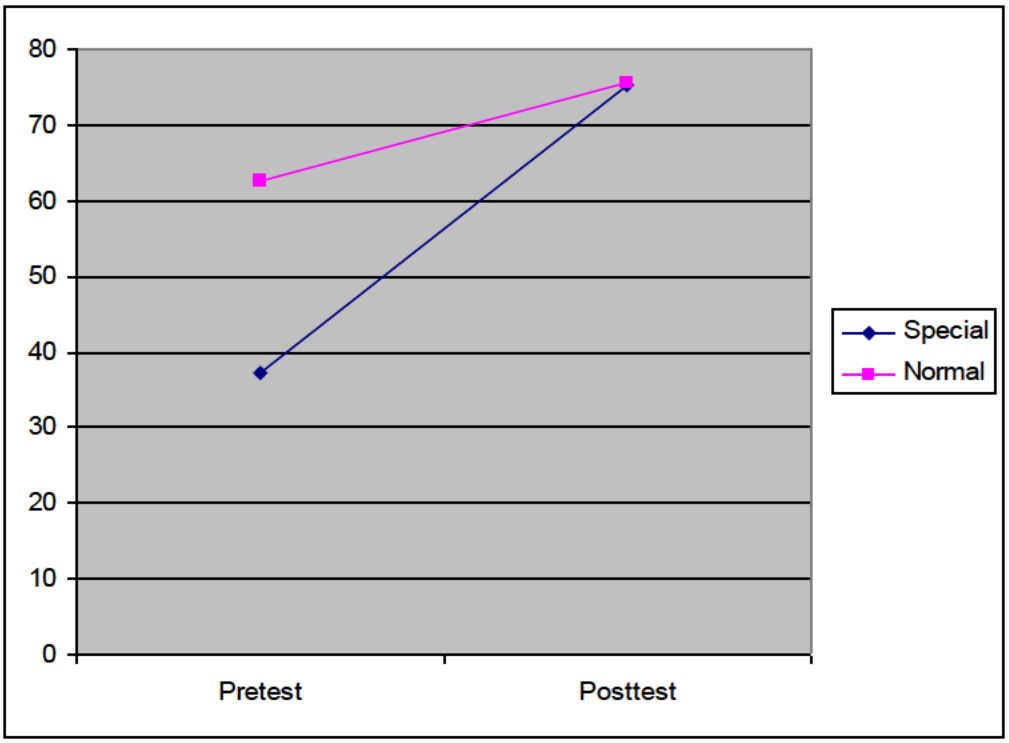

Figure 1 – Graph showing average starting and finishing percentile ranks of classes in Grades 1 and 2

6. Notwithstanding point 5. above, the improvement achieved was commendable and represents both the diligence of the teacher and the effectiveness of the program.

For Grades 3, 4 and 5 two tests were administered from the Progressive Achievement Tests in Reading – one for Comprehension and one for Vocabulary.

Form 1 was used for the pre-test for all three classes. Form 1 was used again for Grade 3 for the post-test, as the Form 2 norms did not accommodate this grade level. Form 2 was used for the post-test for Grades 4 and 5

Grade 3, [redacted]

The results shown in Tables 8 and 9 show the level of improvement over simply achieving the same levels after nearly 10 months schooling.

RESULTS OF COMPREHENSION TESTS.

SPECIAL READING PROGRAM CLASS			STANDARD READING PROGRAM CLASS		
	%ile	stanine		%ile	stanine
Selected pre-test /selected post-test	23.5	1.32	Selected pre-test /selected post-test	- 1.81	- .6
Selected pre-test /All post-test	23.3	1.30	Selected pre-test /All post-test	.57	- .29

Table 6 – Differences in percentile ranks and stanine scores of the two groups within each Grade 3 class.

Points to Note.

1. Initially the pre-test scores on the Comprehension Test for Grade 3 showed the average performance of both groups fell below the average for the state; with the Standard Reading Program Class children, with a few exceptions, performing even more poorly than the children in the Special RPC.

2. In comparison of the improvement reflected in the final results in Comprehension of the two classes, there is a clear difference in favour of the Special RPC.

3. The diversity within the groups is comparable, with some very poor and some very strong readers evident. There is a challenge for both teachers to manage this diversity. Individual scores also show disparity between Comprehension results and Vocabulary results. Some children performed better on the Comprehension Test than they did on the Vocabulary Test and vice versa.

RESULTS OF VOCABULARY TESTS.

SPECIAL READING PROGRAM CLASS			STANDARD READING PROGRAM CLASS		
	%ile	stanine		%ile	stanine
Selected pre-test /selected post-test	10.39	.58	Selected pre-test /selected post-test	27.13	2.12
Selected pre-test /All post-test	14.40	1.00	Selected pre-test /All post-test	20.00	1.71

Table 7 – Differences in percentile ranks and stanine scores of the two groups within each Grade 3 class.

Points to Note:

1. The pre-test results of the Vocabulary tests showed that there was a great weakness in both of the classes. This could have been the result of limited spoken skills, poor word recognition and attack skills or both.

2. Although both classes have shown a definite improvement in Vocabulary, the Standard Program class has made the greater improvement.

4. Both classes still performed below the average for the state, with the Special RPC at the 48th percentile and the Standard RPC at the 43rd percentile.

5. These differences although quite marked were not statistically significant.

Grade 4, [redacted]

Progressive Achievement Tests in Reading

The results shown in Tables 8 and 9 show the level of improvement over simply achieving the same levels after nearly 10 months schooling, in other words, They achieved more than a year's progress.

RESULTS OF COMPREHENSION TESTS.

SPECIAL READING PROGRAM CLASS			STANDARD READING PROGRAM CLASS		
	%ile	stanine		%ile	stanine
Selected pre-test /selected post-test	16.67	1.33	Selected pre-test /selected post-test	15.3	1.16
Selected pre-test /All post-test	15.22	1.08	Selected pre-test /All post-test	19.93	1.82

Table 8 – Differences in percentile ranks and stanine scores of the two groups within each Grade 4 class.

RESULTS OF VOCABULARY TESTS.

SPECIAL READING PROGRAM CLASS			STANDARD READING PROGRAM CLASS		
	%ile	stanine		%ile	stanine
Selected pre-test /selected post-test	23.33	1.44	Selected pre-test /selected post-test	20.84	1.23
Selected pre-test /All post-test	26.91	1.58	Selected pre-test /All post-test	22.63	1.33

Table 9 – Differences in percentile ranks and stanine scores of the two groups within each Grade 4 class.

Points to Note:

1. In the Pre-test only the Grade 4 groups also showed great diversity, with the ranges indicating from very poor to good readers in both groups.

2. Also in the pre-test results it was noted that the average %ile ranks for the Special RPC were well below the state average on the Comprehension tests but the performance on the Vocabulary Test was slightly above the performance on the Comprehension Test.

3. A similar analysis showed that the performance of the children in the Standard RPC on the pre-test Comprehension Test was better than that of the Special RPC. In contrast there was a marked drop in performance on the Vocabulary Test. This suggests that the Standard RPC children rely more on contextual meaning to cope with unknown words, than the Special RPC, who may have had better word recognition or phonics skills.

4. By the time the Post-test was given to all of the Children in both classes, The Special Program class had lost two children and gained four children. Two of these were low achievers and the other two only middling achievers on the reading tests.

5. The standard Program class received one student, who was a relatively high achiever, contributing to the post-test results.

6. These changes would affect the pre-test/post-test results for both of the classes.

7. It can be seen that the children selected for the pre-test in the Special RPC showed greater improvement than the equivalent children in the Standard RPC in both Comprehension and Vocabulary, according to the tests used. This supports point 6.

8. The Special RPC showed superior improvement compared with the Standard RPC in Vocabulary.

9. These differences were not statistically different.

Grade 5, [redacted]

RESULTS OF COMPREHENSION TESTS.

SPECIAL READING PROGRAM CLASS			STANDARD READING PROGRAM CLASS		
	%ile	stanine		%ile	stanine
Selected pre-test /selected post-test	18.73	1.45	Selected pre-test /selected post-test	15.36	1.00
Selected pre-test /All post-test	18.68	1.46	Selected pre-test /All post-test	17.3	1.09

Table 10 – Differences in percentile ranks and stanine scores of the two groups within each Grade 5 class.

RESULTS OF VOCABULARY TESTS.

SPECIAL READING PROGRAM CLASS			STANDARD READING PROGRAM CLASS		
	%ile	stanine		%ile	stanine
Selected pre-test /selected post-test	21.45	1.45	Selected pre-test /selected post-test	17.72	1.09
Selected pre-test /All post-test	22.10	1.54	Selected pre-test /All post-test	20.83	1.25

Table 11 – Differences in percentile ranks and stanine scores of the two groups within each Grade 5 class.

Points to Note:

1. In the pre-testing it was good to see amongst the schools involved in the project a school, whose children were performing above the average for children of their grade level, on these tests. The Special Reading Program Class showed even stronger performance than the Standard Reading Program Class.

2. It was worth noting that whilst the children in the Special RPC were strong on their Comprehension skills, relatively speaking, they were weaker on their Vocabulary skills. In contrast the Standard RPC are consistent in their average performances on the two tests.

3. The data showing the ranges indicate that there is considerable diversity within both groups, but there are more children performing above the 50th percentile or a stanine score of 5, than are performing below these averages.

4. It can be seen from the results of improvement levels in both classes in both Comprehension that the Special RPC children achieved greater improvement than the Standard RPC children. The difference was only marginal and not statistically significant.

5. Similarly the results were much the same for the results for Vocabulary and not statistically significant.

Overall Results

1. Numbers of Children Involved in the Testing Program.
The Post-Test was given to all of the Special Reading Program classes and the Standard Reading Programs classes. The classes in [redacted] Schools were composite classes, which reduced the number of children involved in the testing program.

2. Practice Element
An examination of the Test results also suggests that there is no apparent practice element involved with the tests, which were administered nearly 10 months apart. In particular the tests used in Grades 2, 4 and 5 were different forms (Form 2). In Grades 1 and 3 the same form was used but norms for later in the year.

3. Validity of basic claims.
The resulting outcomes are interesting, and tend to support the Special Reading Program over the Standard Reading Program, particularly when one compares the results of selected children who did both the pretest and the post-test.

As the tests given to Grades 1 and 2 were different in nature to those given to Grades 3, 4 and 5 it was not possible to combine them for overall statistical analysis.

Combining the results for Grades 3, 4 and 5 produced the following results:

All analyses of variance for these three classes showed no significant differences between the randomly selected children who did the pre-test.

4. Comprehension as a dependent Variable.

Below are the results of a **multivariate analysis of variance**.

This looks at the combined scores of Grades 3, 4, and 5. 'Time' is used as the variable name to differentiate Pre-test from Post-Test and 'Program' to differentiate the Special and Standard Reading Programs.

The results of the analysis of variance are below for Comprehension. The interaction effect is particularly interesting. This indicates the degree of change between pre-test and post-test; the 'slope of the line' joining the two means, would be another way of putting it.

Abbreviations in Table 12 indicate sums of squares, degrees of freedom, mean square, F-value, and probability (significance).

Source of variation	***SS***	***df***	***F***	***Probability***
Program	1445.66	1	.89	.35
Time	6041.72	1	37.71	<.001
Program by time interaction	716.93	1	4.47	.039

Table 12 – Sources of Variation

This indicates that the Program, taken across all three classes and including both pretests and posttests together, had little effect. Time obviously had a strong effect (people did much better on the post-test than the pre-test. The interaction was also significant; this indicates

that people improved more under the Special Reading Program than the Standard Reading Program. The means are as follows:

	Pre-Test	Post-test
Special RPC's	**46.90**	**66.70**
Standard RPC's	**44.77**	**54.42**

Table 13 – Comprehension as dependent variable.

In other words, the Special RPC 'improved' by 20 points; the Standard improved by 10.

When the same thing was done for Vocabulary, the interaction was very close to zero. That is, there was no effect at all.

This is represented in Figure 2 below, where the difference in the slope of the lines is quite marked. This interaction factor was statistically significant.

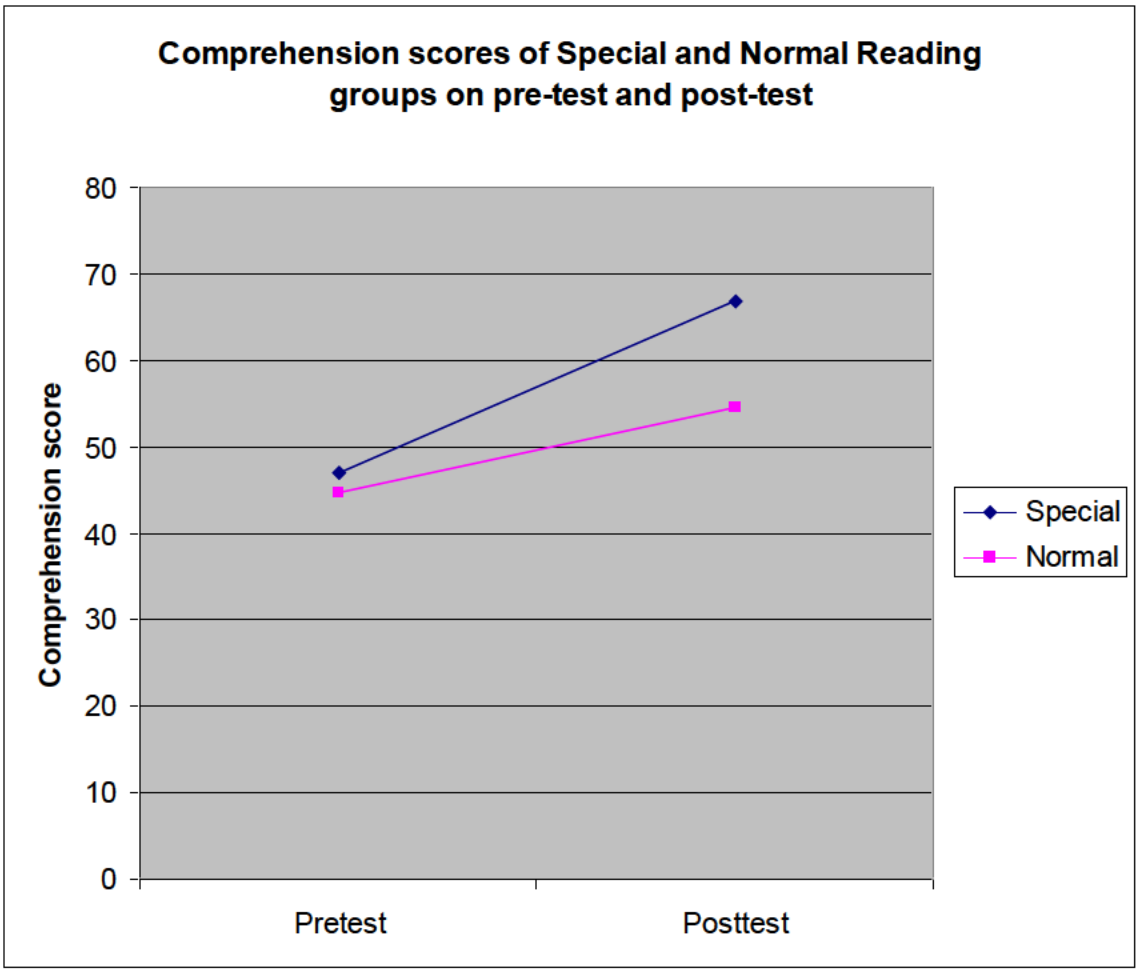

Figure 2 – Comprehension Scores of Special and Standard (Normal) Reading Classes on Pre-test and Post-test.

Conclusions.

Whilst the above results are not completely conclusive there is sufficient evidence to strongly suggest that the efficacy of the Sensory-motor-speech has been proven as a valid way to improve reading comprehension amongst primary aged children, including those children coming from culturally and educationally disadvantaged backgrounds.

In retrospect it is clear that it was a tall order to expect five randomly selected teachers to be able to take on new skills and methods after limited instruction and on-going support, without peer encouragement. In a number of instances they had to face skepticism or competition from the teachers in the same level classes involved in the research, who felt they had something to prove in terms of their own professional competence.

An examination of the literature provided further insight into these issues. In a report published in September 2007 by McKinsey & Company, entitled "How the world's best-performing school systems come out on top" Barber and Mourshed analyse the factors that lead to best performance.

”Top performing systems are relentless in their focus on improving the quality of instruction in their classrooms. … At the level of individual teachers, this implies getting three things to happen.

- Individual teachers need to become aware of specific best practices. In most cases, this not only involves building an awareness of what they do but the mindset underlying it.

- Individual teachers need to gain understanding of specific best practice. In general this can only be achieved through the demonstration of such practices in an authentic setting.

- Individual teachers need to be motivated to make the necessary improvements. … Such changes come about when teachers have high expectations, a shared sense of purpose and above all, a collective belief in their common ability to make a difference to the education of the children they serve.

Many of the reforms we studied were unable to deliver substantial improvements largely because they did not get all of these three things to happen at the same time. …

The notion that external ideas by themselves will result in changes in the classroom and school is deeply flawed as a theory of action.”

From this it is important to note that the improvements brought about by the sensory-motor-speech approach provided by [redacted] Sasse and Schriever were all the more noteworthy, since they were inhibited by the research design, the time available, their access to the teachers in an authentic setting and the fact that the teachers involved were isolated in individual schools, sometimes in “competition” with experienced and motivated teachers.

Recommendations.

If the Sensory-motor-speech approach is to be established in schools, It would seem that several teachers in a single or couple of schools need to be involved and that the Project team need to have access to children in a school setting to demonstrate the methods and to follow this up regularly to maintain teacher motivation and consistency of approach.

Those schools that believe this Sensory-motor-speech approach can enhance their reading programs and benefit the children, no matter what the grade, would be the best place to start. With limited funds and resources it is best to allocate them where the need is understood and the best outcomes are likely.

‘NO CHILD SHOULD FAIL’:

A PILOT EDUCATION PROJECT AND RESEARCH STUDY:

A QUESTIONNAIRE FOR PARTICIPATING TEACHERS:

*The numbered statements presented in italics are the responses of individual teachers. Each number represents the same teacher throughout.

SECTION 1: A SENSORY MOTOR APPROACH TO THE TEACHING OF LITERACY:

- **In what ways did this Pilot Project and Research Study first appeal to you?**

1. *“My lack of knowledge of the connection between physical development and learning, and my passion to enhance my professional practice”*
2. *“I have always included movement and physical education in my classroom management and I thought this sounded like an extension to that”*
3. *“Didn’t – was asked to do it.”*
4. *It appealed to me because I have been searching for ways in which to improve literacy and reading skills for students requiring remedial assistance.”*
5. *“Catering for all children. An opportunity to facilitate success for all.”*

- **Has the project provided you with learning concepts and teaching practices not previously presented to you in the course of your professional development?**

1. *Yes*
2. *Yes*
3. *Yes – PMP only in infants*
4. *Yes it has. I have not had experience in brain development & the link to learning previously.*
5. *Yes. The physical development and brain development impact on learning has been explained more.*

- **Have you been permanently influenced by the sensory motor philosophy and related teaching concepts made available to you in the program?**

1. *Yes.*
2. *Yes.*
3. *Yes*
4. *Yes. The growth of some students has really opened my eyes and reinforced my belief in the program*
5. *Yes. Next year I am teaching grade one/two and will certainly be implementing the program and ideas and I already have the whole juniors (sic. teachers) waiting to follow.*

- **Has the project provided you with a clearer understanding of learning readiness, learning failure and underachievement, and their connection with misbehaviour in the classroom?**

1. *Absolutely.*
2. *Yes.*
3. *Yes.*
4. *Yes. And has provided me with tools to address them.*
5. *Totally, it was what I knew really, but this has explained why, and given practical things to do in order to improve outcomes.*

- **Has your teaching benefited from your participation? If Yes, how?**

1. *Yes. I have a greater understanding of why some children underachieve and have knowledge of how to remedy this.*
2. *Yes. Being able to cue children in and bring them back quickly from one activity to another – management. Understanding underachievers better.*
3. *It's hard to say, so much has been done at our school to improve literacy.*
4. *Yes. I have become able to help children requiring remedial assistance because I have a better understanding of what they need to succeed.*
5. *Yes, more understanding of students and their sensory input, breaking up long class sessions.*

- **What has been the level of interest in this project throughout your school community?**

1. *Not really unfortunately.*
2. *Moderate interest with most interest coming from the prep classroom teachers,*
3. *I didn't publish it.*
4. *Many of the junior school teachers Prep – 2 and the PE teacher are very interested – and in the place of PMP*
5. *High (interest). From Junior and Prep teachers. I have presented at the Prep network. Shared my books and now two are missing.*

- **Have you been encouraged by your principal and colleagues to share professional knowledge, ideas and materials acquired from the project team? Why? What steps have you taken to share your knowledge and materials?**

1. *Yes, as we have no PMP in place. We have made C D's available for other grades.*
2. *Staff presentation in term 1 – prep visitation to my classroom to see activities in operation.*
3. *At the start, I spoke to the Education Committee*
4. *The Prep teachers would like an in-service on the program. The Principal would like to see the results data*
5. *Yes. Have shared at the prep network meeting, shared ideas and resources, team taught with prep teachers a few times,*

- **What reasons would you have for recommending a Sensory Motor Approach to the Teaching of Literacy to your colleagues and educational administrators?**

    1. *Classroom management / behavioural – improvement in attention span – easily identifying students "at risk"*
    2. *Stimulates readiness to learn – children relaxed and cooperative – speech exercises very important for reading – assists classroom management – replaces discipline*
    3. *Engaging – allows all to participate*
    4. *To improve literacy skills of students requiring remedial assistance*
    5. *Changes pathways in brain – data showed significant difference with control group – kids actually like it – you readily see differences in their abilities and coordination.*

SECTION 2: THE PILOT PROGRAM'S OBJECTIVE AND RATIONALE

As a result of your participation in this project, and upon reflection, please indicate your opinion of each of the following statements reproduced from the Project's Plain Language Statement. Please underline or circle the most appropriate expression of your opinion.

a. "The objective of this project is to demonstrate that there is educational value in supplementing children's literacy programs with special speech, sensory and physical activities":

Strongly agree - agree - unsure –disagree

1. *Strongly agree*
2. *Strongly agree*
3. *Agree*
4. *Strongly agree*
5. *Strongly agree*

b. "According to [redacted] **–** these activities enhance the capacity of children to learn according to their true potential":

Strongly agree - agree – unsure – disagree

1. *Strongly agree*
2. *Strongly agree*
3. *Agree*
4. *Agree*
5. *Strongly agree*

For this concept to succeed to the fullest, the process should be carried out on a daily basis throughout the seven years of primary education":

Strongly agree– agree– unsure– disagree

1. *Strongly agree*
2. *Unsure*
3. *Agree – though hard to do*
4. *Strongly agree*
5. *Agree*

c. "The authors contend that children who readily become literate, do so because they display the important attributes of physical, sensory and speech developments consistent with their age":

Strongly agree –agree– unsure- disagree

1. *Strongly agree – undeniably*
2. *Strongly agree*
3. *Strongly agree*
4. *Agree*
5. *Strongly agree*

d. The authors also contend that children who underachieve have one thing in common, i.e. they will be found to be lagging in some of the essential physical, sensory and speech attributes

– **Strongly agree - agree – unsure – disagree**

1. *Strongly agree – undeniably*
2. *Strongly agree*

3. *Strongly agree*
4. *Strongly agree*
5. *Strongly agree*

e. " It is also proposed that maximum success in these developments is absolutely essential for capable children to enjoy maximum individual learning success at school"

Strongly agree– agree – unsure– disagree

1. *Strongly agree*
2. *Agree*
3. *Strongly agree*
4. *Strongly agree*
5. *Strongly agree*

"These processes are seen as natural products of successful childhood development, meaning they will occur naturally **if** the individual child experiences ideal conditions. i.e. provided there is an abundant range of necessary stimuli and developmental opportunities in a child's life and environment".

Strongly agree– agree– unsure– disagree

1. *Strongly agree*
2. *Agree*
3. *Agree*
4. *Agree*
5. *Strongly agree*

f. "The authors contend that modern life-styles do not allow all children to experience ideal conditions, and when that is the case, the authors believe that perceptual, motor, speech and language development is lagging in those children whenever they enter a classroom" (i.e. from their first school day to their last school day):

Strongly agree– agree – unsure – disagree

1. *Strongly agree*
2. *Agree*
3. *Strongly agree*
4. *Agree*
5. *Strongly agree*

g. "It is held that in those instances, maximum learning success cannot occur for those children no matter how well they are taught":

Strongly agree– agree– unsure- disagree

1. *Strongly agree*
2. *Agree*
3. *Agree*
4. *Agree*
5. *Strongly agree*

h. The 'NO CHILD SHOULD FAIL' project offers teachers knowledge and practical strategies designed to prevent learning failure, and thus offers them the hope of assisting all children to learn and achieve at levels that reflect their true individual potential.

Strongly agree– agree - unsure – disagree

1. *Strongly agree*
2. *Strongly agree*
3. *Agree*
4. *Strongly agree*
5. *Strongly agree*

SECTION 3. THE EXPLANATORY BRIEF

1. Prior to receiving the project's documentation, training sessions and curriculum materials, what level of understanding did you have of neurological development and the sensory/motor theory of learning?

A great deal – some understanding – very little

1. *No response*
2. *Very little*
3. *Very little*
4. *Very little*
5. *Some understanding*

Could you briefly outline what you have learned from the professional development aspect of the Project on the following topics?

- Movement and learning
    6. *All these developments go hand in hand. With a deficiency in any of these areas, students cannot reach their full learning potential.*
    7. *Include movement daily – movement stimulates receptiveness to learning – movement impacts on their senses.*
    8. *All of these topics go hand in hand in a child. One is affected all are affected.*
    9. *Crossing the midline – coordination and balance and other exercises all improve children's literacy and reading skills through making connections of the body and brain.*
    10. *Crossing midline – crawling – marching, handedness could be linked to literacy and achievement this was evident clearly. Students' processing of info was difficult also in those that had these problems.*
- Sensory Integration and learning
    1. –
    2. *Balance is very important – sensory systems – visual, auditory, tactile interact with each other*
    3. –
    4. *Touch games to music such as "Put your .." and "Partner to partner" assist children.*
    5. *Reflexes – innate, our culture's tendencies with child rearing affect integration and reflexes. All systems putting in information can easily be scrambled or vary in individuals.*

- Speech Development
    1. –

2. *Children with poor speech (tend to) have difficulty learning to read – tongue and lip exercises breathing – using rhymes and poems*
3. –
4. *Some children don't open their jaws and enunciate. Speech exercises such as la la la me me me moo moo assist in the development of speech and muscles in the mouth.*
5. *Rhyme, patterning, language development is embedded in oral culture e.g. nursery rhymes. Oral language is essential in classroom; many customs and traditions have a purpose in development.*

- Gross and Fine Motor Development
  1. –
  2. *Cross patterning – finger movements – improves handwriting.*
  3. –
  4. *Improvements in handwriting have been noticeable, hand/eye coordination, sporting prowess and confidence.*
  5. *Coordination and practice, repetition important for development and integration. Some splinter skills developed in some children.*

- The Process of Reading
  1. –
  2. *Learning to read will come naturally when the child has good speech, coordinated movement and mature sensory processes.*
  3. –
  4. *The sensory approach assists students in reading and comprehension.*
  5. *All of this impacts on this complex process that depends on the integration of the data going in to make meaning.*

2. As a result of your participation in the project do you now wish to further expand your knowledge of assisting children's neurological development?

Yes– unsure - no

1. *Yes*
2. *Unsure*
3. *Yes*
4. *Yes*
5. *Yes*

How helpful has been the project's presented information and documentation on the development of speech and gross and fine motor skills in relation to the development of reading skills?

Very helpful**– helpful– not helpful**

1. *Very helpful*
2. *Very helpful*
3. *Helpful*
4. *Very helpful*
5. *Very helpful*

3. How helpful were the practical ideas presented in the “3 Minute Classroom Activities”?

Very helpful– helpful – not helpful

1. *Very helpful (plus three ticks for emphasis)*
2. *Very helpful*
3. *Very helpful*
4. *Very Helpful*
5. *Very helpful*

4. How helpful were the practical ideas presented in the “Structured Program”?

Very helpful - helpful – not helpful

1. *Very helpful (plus three ticks for emphasis)*
2. *Very helpful*
3. *Very helpful*
4. *Very helpful*
5. *Very helpful*

5. How helpful was the practical training for the Sensory Motor Program?

Very helpful - helpful– not helpful

1. *Very helpful (plus three ticks for emphasis)*
2. *Very helpful*
3. *Helpful*
4. *Very helpful*
5. *Very helpful*

6. How helpful were the CDs and the individual exercise mats?

Very helpful– helpful – not helpful

1. *Very helpful (plus three ticks for emphasis)*
2. *Very helpful*
3. *Very helpful*
4. *Very helpful*
5. *Very helpful*

Comments:

1. **Nil**
2. *Children loved all the activities that entailed music – were very motivated every time we went to the gym or outside for activities – there were so many activities I couldn't try all of them – we are now tunnel ball champions*
3. *Nil*
4. *Students loved the three-minute activities such as the clapping and tapping – They loved games such as hitting balloons with fly swats, beanbag games. The music games were very popular and children were always asking for their favourite song..*
5. *I work in a year five/six classroom, interest was variable and it took a lot of planning to maintain a positive program at times. Students in the main did enjoy it but there was some negativity with others.*

SECTION 4. THE EXECUTIVE SUMMARY OF THE EXPLANATORY BRIEF

- What is your opinion of the philosophy as presented in the set of statements in the Executive Summary? (Page 2 of Explanatory Brief – Project Manual) Please expand on your response.

Strongly agree – agree– unsure – disagree

1. *Strongly agree*
2. *Agree*
3. *Agree*
4. *Agree*
5. *Strongly agree*

Comments:

1. *I agree that the "confused state of receptiveness" is highly neglected and overlooked in the education setting.*
2. *I agree that children who have immature speech and language struggle to learn. A child's readiness is important when starting school.*
3. *Nil*
4. *Nil*
5. *Focus for measuring schools' performance is outcomes – Reading benchmarks, aim tests, retention, attendance, VCE scores over 40. Increasingly, as this is held over schools, the pressure and teaching narrows to putting time and effort into the teaching of the mechanics of reading. E.g. slavishly rote learning spelling lists, comprehension without looking at the big picture and the love of reading and language*

SECTION 5. RECOMMENDATIONS FOR IMPLEMENTING A SENSORY MOTOR APPROACH TO THE PRIMARY SCHOOL CURRICULUM

- What degree of difficulty did you experience in implementing the recommendations contained in this section?

Great difficulty – some difficulty– no difficulty

1. *Not indicated*
2. *Some difficulty*
3. *Some difficulty*
4. *Some difficulty*
5. *Some difficulty*
6.

- *On the accompanying copy of that set of recommendations, could you indicate which of them you were able to implement readily, and which of them you were unable to implement, along with a brief indication of why– e.g. the constraints of mandatory timetabling, conflict with school policy?
-

7. *Readily implemented breathing with movement – conflict with mental maths time*
8. *All recommendations were implemented most days, but not all due to specialist subjects*
9. *No detailed response*
10. *Copy not included in this teacher's questionnaire*
11. *Followed the program's recommendations*

- Would you permanently adopt these recommendations if you were free to do so?

Yes – maybe – no

1. **Yes**
2. **Yes**
3. **Yes – though reduced**
4. **Yes**
5. **Yes – definitely**

SECTION 6. RECOMMENDATIONS FOR FACILITATING IMPROVEMENTS IN CHILDREN'S SPEECH

- **Please comment on the recommendations reproduced on the accompanying sheet and briefly indicate your successes with this aspect of the project.**
    1. *I believe they helped students 'get their mouths' around difficult sounds such as the two sounds of 'th'*
    2. *We did lip and tongue exercises – breathing exercises – children became confident enough to be corrected with their speech – automatic response to number facts has improved*
    3. *No response*
    4. *I found these exercises and recommendations really worked with some students I have been trying to assist in improving their speech – children who don't open their jaws, children who speak too quietly, children who run out of breath when reading*
    5. *Speech suggestions were trialled but difficult. Did breathing techniques and rote practice of number patterns with some exercises*

- What degree of difficulty did you experience in implementing speech activities?

No difficulty – some difficulty– great difficulty

1. **No difficulty**
2. **Some difficulty**
3. **Some difficulty**
4. **No difficulty**
5. **Great difficulty**

- How valuable were the speech notes the presenters made available to you?
  1. *Very*
  2. *Very valuable*
  3. *Great*
  4. *Very*
  5. *Very – especially as I will be a junior teacher next year*

- Did you previously have access to such material?
  1. *No*
  2. *No*
  3. *Some*
  4. *No*
  5. *-*

- Has speech training previously featured in your professional development? In what form and to what degree?
  1. *Yes – cued articulation – THRASS*
  2. *Yes – just recently from a speech pathologist*
  3. *Yes – it's starting at our school*
  4. *No*
  5. *Only in B Ed and some auditory processing and early years*

SECTION 7. RECOMMENDATIONS AND SUGGESTIONS FOR PHYSICAL ACTIVITIES TO BE USED IN A SENSORY MOTOR APPROACH TO THE PRIMARY SCHOOL CURRICULUM

- Please comment on the recommendations as contained in Section D of the Explanatory Brief (pp 5 – 20 Project Manual), and indicate your successes with this aspect of the project.
  1. *No detailed comment*
  2. *Very successful as I felt confident in delivering this part of the program. Children enjoyed these daily sessions and the repetition of the activities made them feel safe and confident. They knew what to expect.*
  3. *No detailed comment*
  4. *No detailed comment*
  5. *The ideas and concepts covered all receptive areas and were/are a great resource. The whole program was great professional development for me as it was so explicit. Some difficulties were faced due to activities generally being most appropriate for younger students. However they still enjoyed most – but I had to spend a lot of time changing, explaining, and coming up with new materials ideas in order to engage.*
- What degree of difficulty did you experience with the daily Sensory Motor Program? Please expand on your response.

Great difficulty - some difficulty – no difficulty

1. ***Some difficulty – timetabling***
2. ***No difficulty***
3. ***Some difficulty – time***
4. ***–***
5. ***Some difficulty – time for planning, engaging older students***

SECTION 8. OBSERVATION OF STUDENT PROGRESS

- What were the most noticeable changes you observed in your students as they participated in this program?
    1. *Physical coordination – improved speech – overall happiness at school*
    2. *Improved listening and concentration – improved literacy skills – helpful and cooperative students – confident children*
    3. *Lefts and rights – confidence – handwriting*
    4. *Improvement of speech – improvement in concentration – improvement in handwriting and coordination – improvement in reading comprehension skills – improvement in sporting prowess and confidence – fosters love for literacy, poems, and speeches. Able to copy from board*
    5. *From 'being all over the place', loud, slow to perform they came to follow the instructions and seamlessly changed between the five competencies of the program with little fuss. The seemed to become a calm settled group*

- What were some of the minor changes you observed in your students?
    1. *Persistence and a feeling of togetherness*
    2. *Quickness with maths – eagerness*
    3. *As for previous comment*
    4. *–*
    5. *I can't honestly say in individuals, some improved marching and crawling skills and following instructions*

SECTION 9. STUDENT ENJOYMENT

- Please comment on your students' level of enjoyment.
    1. *My Prep/Year 1 students absolutely **"love"** the program. They ask for it if we haven't done it in a day.*
    2. *The children loved the program especially any activities to music. Children always asked "Are we using the mats today?" Children were happy to show other teachers what they were doing*
    3. *Varied depending on mood. Some went overboard with the music – silly – Most liked it especially the girls*
    4. *Students loved the music and games. They loved the mat exercises and coordination exercises. They would always ask if we were doing the program today and request their favourite songs. 3 minute classroom activities were a lot of fun & very beneficial, worked well on days that we couldn't do the whole program.*
    5. *Year five/six – some really enjoyed, some were negative, some chose favourite songs. Had to keep it changing to maintain interest & keep doing new materials, e.g. bean bags, balls, hoops, ribbons. Some kept asking what was the purpose and how long do we have to do it for – one high achiever in all areas really didn't like it. Some*

activities the children took on board and were very creative – extended and developed in their own way

SECTION 10. RELATING THE PILOT PROJECT TO YOUR LITERACY PROGRAM

Has the project fitted readily into your school's Literacy Program?

1. *Speech – reading*
2. *Yes*
3. *I did separately*
4. *My literacy program, yes.*
5. *No. Thee was no place for this in year five/six*

Please provide a brief description of your teaching strategies for reading:

1. *First hour of every morning 10-minute mini lesson as intro with a specific focus. Then two 20-minute activities. I have two ability based teaching groups during this time and students get 2 per week*
2. *– build bank of high frequency words by sight – blend sounds to decode – re-read to correct – discuss story link to known experiences – like reading groups matched to text/level*
3. *guided reading sessions C + C reading 4 literacy – whole class*
4. *Small group instruction – mixed and ability groups – Literacy circles and discussion – Text response to a class serial and discussion groups*
5. *Whole class modelled reading – Guided reading - literature circles – Grammar – word study + spelling sessions – linking text types in reading to writing*

- Do you conduct whole class reading sessions? How often?
  1. *Daily for 1 hour*
  2. *Yes – once a week*
  3. *Weekly*
  4. *Every day*
  5. *Weekly*

- How often do you hear individual children read? Daily? Weekly?
  1. *Every day*
  2. *Twice a week*
  3. *Weekly*
  4. *Every second day or three times a week*
  5. *Weekly*

- How often do helpers hear individual children read?
  1. *Every day*
  2. *Daily*
  3. *Never*
  4. *Never*
  5. *Never*

- What reading materials are used in your classroom? E.g. Whole class sets appropriate to year level? Sequential readers? Commercially produced reading schemes?
  1. *Level based reading sets*
  2. *Magazines – non-fiction – books*
  3. *Internet comp/print*
  4. *Whole class sets, fiction novels, big books, class magazines*

5. *Novels in sets, reading materials linked to topics and inquiry, newspapers, magazines and poetry*

- Do children have 'free reading' time?
  1. *Yes – to cater for interest and need*
  2. *Yes*
  3. *Yes*
  4. *Yes – fifteen minutes every day after lunch*
  5. *Yes – 3 x 15 minutes*

- What use do you make of children's literature, including poetry?
  1. -
  2. *Yes, some*
  3. –
  4. *Weekly exercises and study*
  5. *Share – compose – literature circle*

- Do you read stories to the children?
  1. *3 or 4 a day*
  2. *Yes – daily*
  3. *Everyday*
  4. *Yes – everyday a picture story book or class serial*
  5. *Yes – novel and short stories*

Please a brief description of your writing/written expression strategies.

1. *Modelled writing – shared writing – introduction – week-end recount session on Monday – ability based writing groups each day. For the rest of the week I have one teaching group each day in writing sessions. Each child gets one T.G. per week*
2. *Daily writing of diary – expose children to experiences/ incursions/ excursions and write about these – children write narratives, reports and procedures*
3. *Whole groups – groups – different genres*
4. *Focused literacy sessions on spelling and grammar. Creative writing sessions based on using a "writer's Hat" and an "Editor's Hat" which allows students to focus on particulars – using a mind map to plan for story writing*
5. *Teach text types through examples in reading - before writing – modelled writing – interactive – whole class – group. Author think process – plan compose, revise, author circle, revise. Analyse exemplary writing – metaphor/simile, analyse picture story books*

Please provide a brief description of your spelling program

1. *Comes from writing. Students underline 5 words they are unsure of in their 'recent' writing – these become their spelling words for the week. They do a daily' look/say, cover, check', and have two opportunities per week to complete a contract activity of their choice. Some activities include painting the words, pin-pricking them, forming them with play dough*
2. *Continual revision of most commonly written words – weekly words related to family groupings of blends e.g. 'ar' words – test at end of week –"Have a go" areas provided for children to explore and look to see if a word 'looks' right*
3. *X 12 words learnt each week – personal, theme. Blends etc – spelling activities related to this*
4. *Based on a spelling book program (Spelling Rules) – Weekly list and daily grammar and spelling exercises in class – Friday test and review – "Words Rock" and other computer program games – extension opportunities and remedial work – Spelling contracts – individual activities for students to choose and work on*

5. *Grouped according to need. Some are spelling at age 15+ some are at year 3 level. Teach work patterns, strategies, word families, endings, beginnings, root word. LSCWS + many other practice strategies*

YOUR COMMENTS AND RECOMMENDATIONS FOR THE FUTURE OF THIS PROGRAM:

1. *Needs to be more highly publicized. I will be continuing this program with my new preps next year for sure*
2. *Good luck with the submission. It is a worthwhile program and I will continue using it myself in the classroom. From my year's experience, I believe it does make a difference.*
3. *No comment*
4. *No added comment*
5. *I see an enormous need in students beginning school. There is an increasing number of students entering school with significant problems severe enough to attract a Teacher's Aide. Some with 'Aspergers syndrome' others with learning difficulties – students on "Reading Recovery" have increasing difficulty with physical coordination – I have checked this out this year. I recommend P – 4 implementation,*