Seminar Program

- 7pm   Registration and Book display
-              Purchase drinks or food if you wish
- 7.15   Welcome and introduction
-              Presentation
- 8.15   Break – book display or purchase drinks
- 8.30   Resume – questions
-              Presentation
- 9.15   Lucky Door Prizes
-              Questions
- 9.30   Finish

Gifted and Underachieving

Presented by

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Columbus Group 1991

Giftedness is Asynchronous development in which advanced cognitive abilities and heightened intensity combine to create inner experiences and awareness that are qualitatively different from the norm.

This asynchrony increases with higher intellectual capacity.

The uniqueness of the gifted renders them particularly vulnerable and requires modifications in parenting, teaching and counselling in order for them to develop optimally.

Gagne's DMGT (2008)

CHANCE (C)

NATURAL ABILITIES
GIFTS (G) = top 10 %

DOMAINS

MENTAL

INTELLECTUAL (GI)
General intelligence ('g' factor)
Fluid, crystallized reasoning
Verbal, numerical, spatial (*RADEX*)
Memory: procedural, declarative

CREATIVE (GC)
Inventiveness (problem-solving)
Imagination, originality (arts)
Carroll's 'retrieval fluency'

SOCIAL (GS)
Perceptiveness (manipulation)
Interacting: social ease, tact
Influence: persuasion, eloquence,
leadership, courting, parenting

PERCEPTUAL (GP)
Vision, hearing, smell, taste,
touch, proprioception

PHYSICAL

MUSCULAR (GM)
Power, speed, strength,
endurance

MOTOR CONTROL (GR)
Speed (reflexes), agility,
coordination, balance

CATALYSTS

ENVIRONMENTAL (E)

MILIEU (EM)
Physical, cultural, social, familial

INDIVIDUALS (EI)
Parents, family, peers, teachers, mentors

PROVISIONS (EP)
Enrichment: curriculum, pedagogy (pacing)
Administrative: grouping, acceleration

INTRAPERSONAL (I)

TRAITS

PHYSICAL (IF)
Appearance, handicaps, health

MENTAL (IP)
Temperament, personality, resilience

GOAL-MANAGEMENT

AWARENESS (IW)
Self & others; strengths & weaknesses

MOTIVATION (IM)
Values, needs, interests, passions

VOLITION (IV)
Autonomy, effort, perseverance

DEVELOPMENTAL PROCESS (D)

ACTIVITIES (DA)
Access
Content
Format

PROGRESS (DP)
Stages
Pace
Turning points

INVESTMENT (DI)
Time
Money
Energy

COMPETENCIES
TALENTS (T) = top 10 %

FIELDS

ACADEMIC (TC)
Language(s), maths, sciences,
humanities, vocational

R TECHNICAL (TT)
Transport, construction, crafts,
manufacturing, agriculture

I SCIENCE & TECHNOLOGY (TI)
Engineering, medical, social

A ARTS (TA)
Creative, performing
Applied: visual, written, spoken

S SOCIAL SERVICE (TP)
Health, education, community

E ADMINISTRATION/ SALES (TM)
Management, marketing,
protection, inspection

C BUSINESS OPERATIONS (TB)
Records, financial, distribution

GAMES (TG)
Video & card, chess, puzzles

SPORTS & ATHLETICS (TS)

Ⓕ 2008

- Some have estimated that the percentage of students with high ability who do not achieve is as high as 50% (Peterson, J. 1993)

UNDERACHIEVEMENT

- DEFINITIONS

- *Underachievement is a discrepancy between the child's school performance and some index of his/her actual ability, such as intelligence, achievement, creativity scores or observational data* (Davis & Rimm, 1994, p.281)

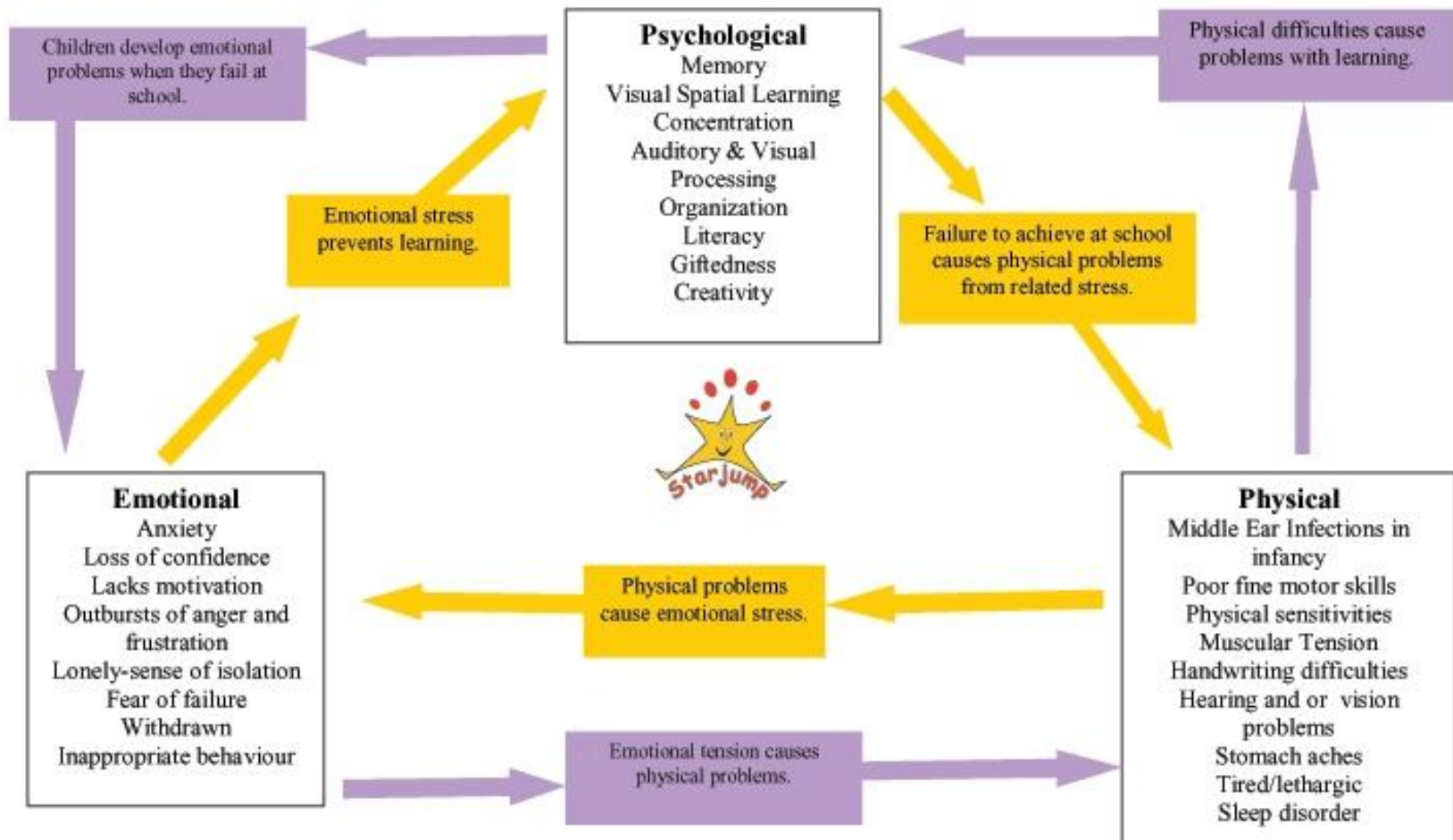- *Underachievement is content and situation specific and is in the eye of the beholder,* (Nordby, 1998)

- *Underachievers are made not born. It is the child's choice to underachieve." (Lewis, 1988)*

- *Never take away the thing or things that a child loves and succeeds in. (Lewis, 1988)*

- *Gifted students underachievement is a way to express either a need for attention or a need for control over a situation.*
  (Colangelo & Davis, 1977)

- *Underachieving gifted students are reported to attribute success to ability and not see the relationship to effort. (Clarke, 1997)*

- *The central characteristics which distinguishes achievers from underachievers is an internal locus of control, the sense that children can effectively change their academic outcomes by effort.(Rimm, 2002)*

- *Whitmore talks about underachieving schools*

Factors influencing Underachievement

- Co-existing conditions

- Gender Ethnic or socio-economic group

- Environment

- Motivation

BREAKING THE CYCLE OF LEARNING DIFFICULTIES

Children develop emotional problems when they fail at school.

Psychological
Memory
Visual Spatial Learning
Concentration
Auditory & Visual
Processing
Organization
Literacy
Giftedness
Creativity

Physical difficulties cause problems with learning.

Emotional stress prevents learning.

Failure to achieve at school causes physical problems from related stress.

StarJump

Emotional
Anxiety
Loss of confidence
Lacks motivation
Outbursts of anger and frustration
Lonely-sense of isolation
Fear of failure
Withdrawn
Inappropriate behaviour

Physical problems cause emotional stress.

Physical
Middle Ear Infections in infancy
Poor fine motor skills
Physical sensitivities
Muscular Tension
Handwriting difficulties
Hearing and or vision problems
Stomach aches
Tired/lethargic
Sleep disorder

Emotional tension causes physical problems.

Some co- existing conditions

- Visual processing problems
- Central auditory processing problems
- Sensory integration issues
- Retained primitive reflexes
- Diet and gut problems
- Neurological problems -Executive functioning problems such as ADHD
- Autism spectrum disorder – Aspergers
- Anxiety

Gender, ethnic or socio- economic group

- Girls

- Boys

- Indigenous

- Low socio economic

Why would a gifted child *choose* to underachieve

- Imposter syndrome

- Forced choice dilemma (Gross)

- Involuntary minorities

- Difference eg. Early readers

- Unchallenging schoolwork/inappropriate curriculum

Distinction between boredom and learning

- 5 distinguishing features   *The 5 C's*
  - *Control*
  - *Choice*
  - *Challenge*
  - *Complexity*
  - *Caring teachers*

FLOW IS - The quality of experience as a function of the relationship between challenges and skills. Optimal experience or flow occurs when both variables are high.(Csikszentmihalyi, 1990)(*chic sent me hi*)

High

C
H
A
L
L
E
N
G
E

Anxiety   Arousal   FLOW

Worry   Control

Apathy   Boredom   Relaxation

Low   High
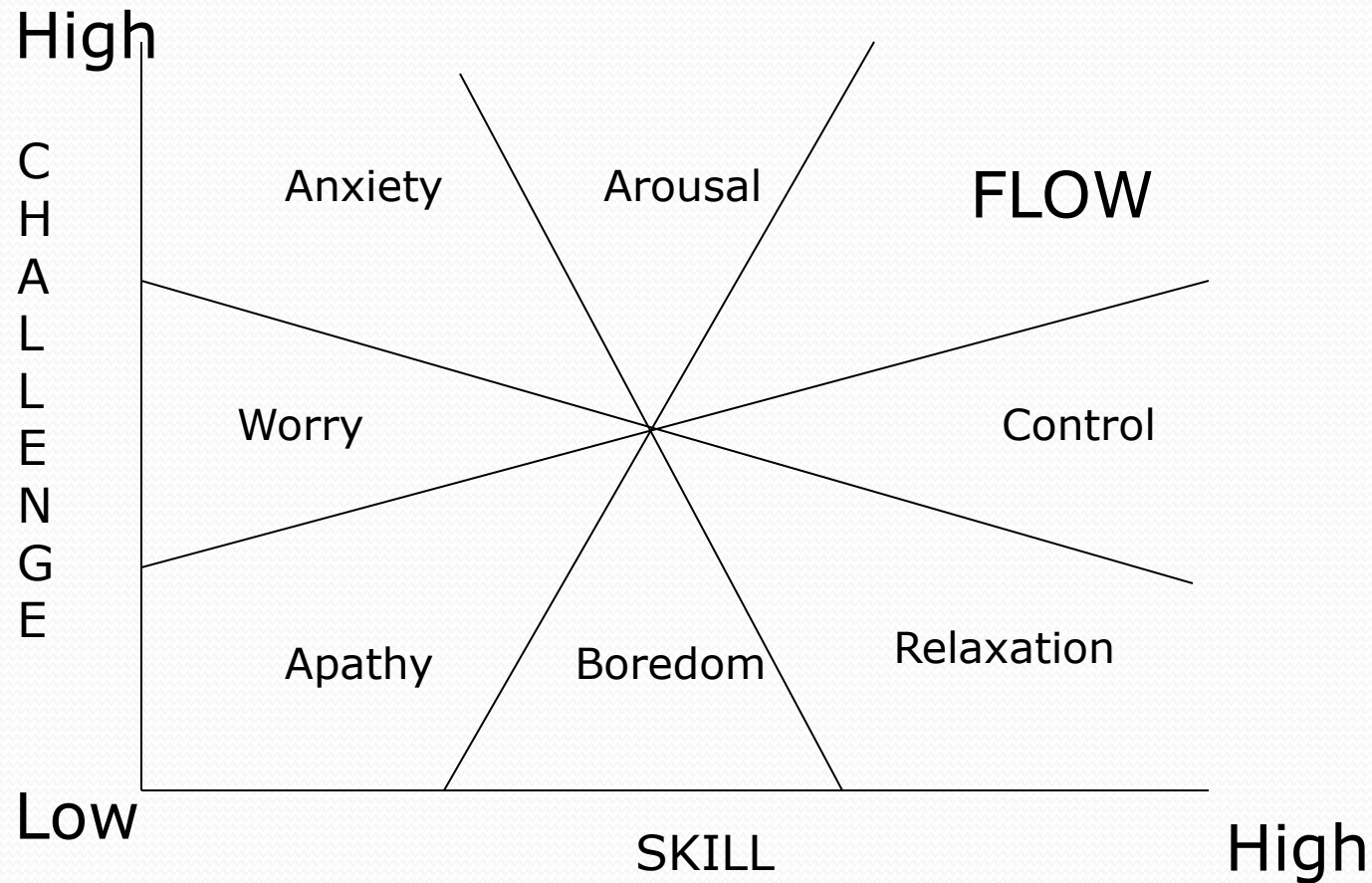
SKILL

Obstacles that prevent 'flow'

- *Lack of choice* over content and scope of assignments

- *Lack of challenge* to current skills

- *Lack of clarity,* both in the goals of student work and in feedback to performance

- *Lack of control* over the match between challenge and skill

Reduce the underachievement cycle

- Assessment
  - Of students' abilities, strengths, interests, problems areas by trained psychologist/ school counsellor

- Communication
  - ongoing between parents and teachers and the student
  - focus on reinforcing strengths /abilities
  - remediating or make adjustments for the weaknesses

Left
Word

Right
Picture

A

B

C

D

B

A I

H D G

E C

F

Space

Creative and Non Creative Thinkers AHA Moments!!

- Distinctive pattern of brain activity - even at rest

- Greater activity in regions of right hemisphere

- Different brain activity in visual processing areas of brain

- Consistent with diffused rather than focussed visual attention

- Collect a broader range of inputs that trigger remote associations

- (Kounios, J. Jung-Beeman, M 2007)

Analytical processors / auditory sequential

- Learn persistently
- In quiet setting
- Bright lighting
- Formal seating
- Little or no food or drinks

Global holistic processors / visual spatial

- Require regular breaks
- Soft lighting
- Sound in the environment
- Seating informally
- Regular snacks and drinks
- Learning with peers
- Tactile activities
- Learn on different tasks at the same time
- Poor auditory memory

- While many gifted learners may prefer holistic tasks, only underachievers appear to have relative performance deficits in analytic tasks as compared to holistic tasks

- Perhaps this indicates more of a cognitive style than preference

Important implications

- Most gifted students with IQ >= 145 were global learners Cody (1983)
- Most underachievers were also global and almost exclusively tactile/kinesthetic learners (Price,Dunn, Dunn & Griggs1981)
- Only 12% low achieving gifted students prefer auditory learning
- 65% of teachers were analytic
- Underachievement may be learned through the struggle to cope with the psychological conflict of the classroom (Whitmore, 1980)
- Self efficacy is influenced by our past experience of mastery and the feedback from respected others (Bandura, 1986)

"Illustrated by Buck Jones. Re-printed by permission from Silverman, L. (2002) Upside-Down Brilliance: The Visual-Spatial Learner, Denver: DeLeon Publishing."

Initial identification due to school based problems

- Has difficulty finishing tasks/schoolwork

- Has a poor sense of time, does poorly on timed tests

- Has difficulty with spelling and /or reading

- Loves books or learning but reluctant reader

- Has difficulty with times tables and /or computation

- Disorganised, poor listening skills and easily distracted

- Often thought to be lazy or disinterested

- Poor eye contact

Emotions

Does your child need to learn how to manage his/her anxiety? Is he/she a visual spatial learner? If so, standard talking interventions have limited value. A picture thinker approach is needed.

Learning to handle mistakes

- Perfectionism

- Anxiety

- Risk taking

- Living with mistakes

5 STEPS TO LEARNING

Hey... I can do it!

5 Mastered! I can do it without thinking.

mistakes
mistakes
mistakes
mistakes
mistakes

4 I need to practice or use my picture thinking to master it.

3 I know how to do it but not very well.

2 I've been shown but I still don't know how to do it.

1 I don't know how to do it ! It's hard.

You want to learn something new !
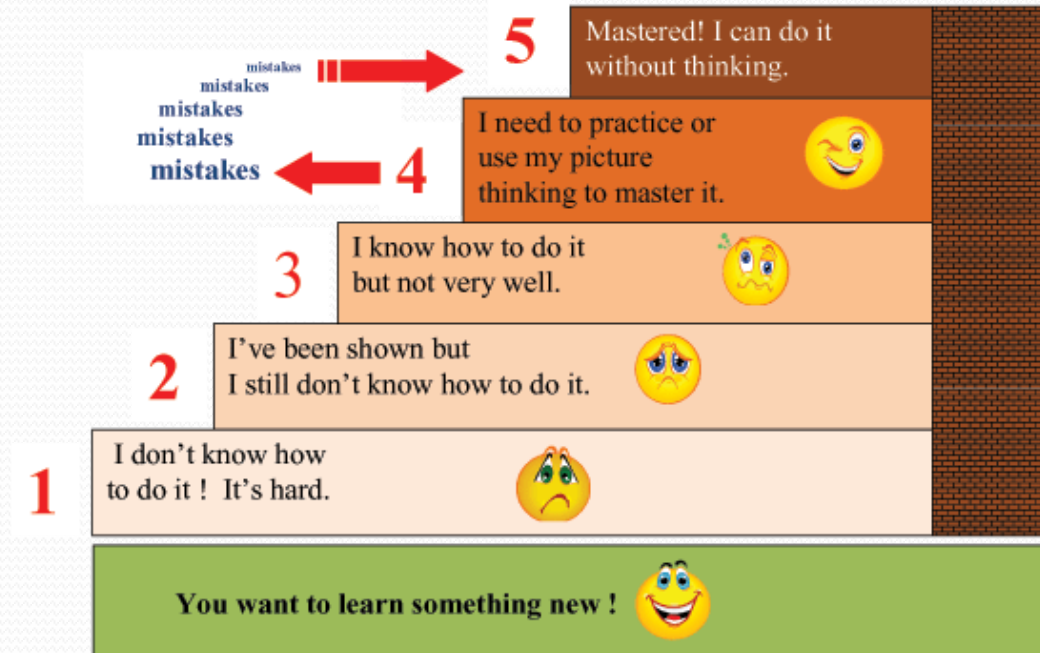
Break

- Please take the time to chat to others

- Look at the book display

- Resource sales table

- Purchase a tea/coffee or drink

- Raising Small Souls

The Pyramid of Development, Learning & Wellbeing

by Rosemary Boon 1996,2007
(Adapted From Shiel & Dyson)

"All learning has an emotional base"
-Plato, 347 B.C.

COMMUNITY CONTRIBUTION

LIFE STYLE
Self Actualisation

COACHING

LIFE SKILLS
Stress mgt, Anger mgt, Philosophy, Self Reliance & Spirituality

MENTORING SUPPORT

TEACHING

ACADEMIC
Literacy & Numeracy Training, Thinking Skills, Learning Styles

PSYCHOLOGY PERSONAL DEVELOPMENT

DEVELOPMENTAL, VISION & SPEECH THERAPY

DEVELOPMENTAL & PRE ACADEMIC
Developmental Auditory & Visual Skills, Language, Vision, Spatial, Eye-hand, Sequencing Skills

PRE-ACADEMIC PROGRAMMES

SENSORY MOTOR INTEGRATION

EEG & EMG BIOFEEDBACK

FUNCTIONAL
Neuronal Function, Vestibular, Occulomotor, Auditory & Visual Processing, Motor Coordination, Balance, Primitive & Postural Reflexes, Emotional Distress

SOUND THERAPY

COUNSELLING & FAMILY SUPPORT

GENETIC, STRUCTURAL, METABOLIC & NEUROPHYSIOLOGICAL
Musculoskeletal, Illness, Injury/Trauma, Toxicity, Allergens, Disorders, Eyesight, Hearing

GUT & IMMUNE SYSTEM

HEALTH & MEDICAL PRACTITIONERS

MAJOR RISK FACTORS

- Generally at least above average to high intelligence
  - Masking effect

- Scatter in IQ scores on WISC assessments
  - Depressed IQ scores

- Struggle as work increases
  - Underachievement
    - Low self efficacy, loose motivation, hate school, teacher's expectations/beliefs, poor behaviours

- Lack of accurate assessment of whole person including co-existing conditions-multi modal

HISTORY

- History of allergies or ENT problems in first 5 years

- Conductive hearing loss in early childhood

- Poor short term auditory memory

- Family member with similar style

Working Memory

- The term used to refer to a brain system responsible for temporarily storing and manipulating information.

- It functions as a mental workspace that can be flexibly used to support everyday cognitive activities that require both the simultaneous processing and storage and retrieval of information. *Tracy Packham Alloway - Educational Research and Resources Vol 1(4), pp.134-139, July 2006*
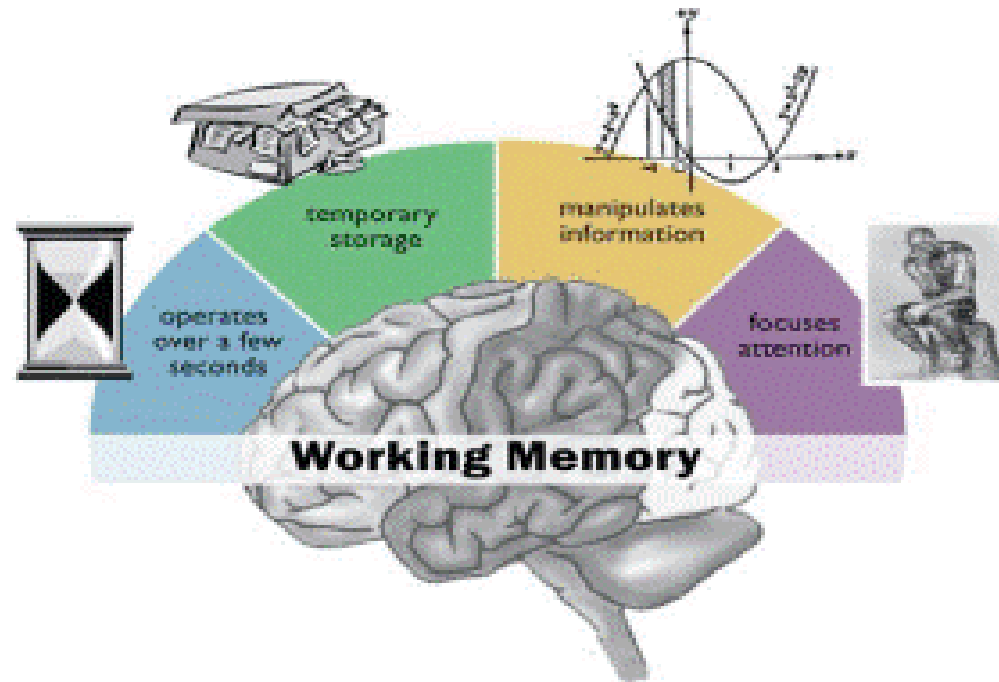
- Evidence shows that working memory is critical for academic success and has implications for:
  - focusing appropriately
  - shutting out distractions
  - complex thinking

- Managing working memory deficits in the classroom.
  - change the learning environment with good classroom strategies,
  - change the student with targeted working memory training.

- Researchers argue that working memory is a better predictor of school and work success than IQ

Identifying characteristics of Visual-Spatial System of Thinking

- Visual, not auditory
- Spatial, not sequential
- Holistic, not detail-oriented
- Focus on ideas, not format
- Pattern seeking
- Divergent, Not convergent
- Sensitive and intense
- Asynchronous development

Characteristics

- Strengths
  - Thrives on complexity
  - Loves difficult puzzles
  - Fascinated by computers
  - Great at geometry and physics
  - Keen visual memory
  - Creative, imaginative
  - A systems thinker
  - High abstract reasoning
  - Excels in math analysis
  - High reading comprehension
  - Excellent sense of humor

- Weaknesses
  - Struggles with easy material
  - Hates drill and repetition
  - Has illegible handwriting
  - Poor at phonics, spelling
  - Poor auditory memory
  - Inattentive in class
  - Disorganised :forgets details
  - Difficulty memorizing facts
  - Poor at calculation
  - Low word recognition
  - Performs poorly on times tests

- "Illustrated [   ] Silverman, L. (2002) Upside-Down Brilliance: T[   ] lishing."

Upside Down Brilliance , Silverman 2002

The figures to follow come from a random selection of 50 Gifted LD s The figures to follow come from a random selection of 50 Gifted LD students we have assessed over the last few years.

Prevalence of Coexisting conditions

88% had 3 co existing conditions flagged

50% had 4 co existing conditions flagged

Understanding the big picture is necessary in order to get the right intervention.

Visual Disorders

76% had symptoms to suggest moderate to severe problems in the following areas:

- Visual processing
- Visual motor
- Visual perceptual
- Visual somatic integration
- Actual vision
- Visual strength and dynamic function.

Central Auditory Processing Disorders

50% had symptoms which indicate the presence of a CAPD

Visual Spatial Learning Strategies are essential for children with a CAPD.

ADHD or ADD

ADHD or ADD

Treatment is highly recommended to avoid negative long term social , emotional and academic problems.

Over excitabilities

Intellectual

Emotional

Imaginational

Sensual

Physical

- 84% had an Intellectual OE.
- 66% had 2 OE's
- 30% had 3 OE's
- 22% had 4 or 5 OE's

Sensory Integration Profile

Tactile

Taste & Smell

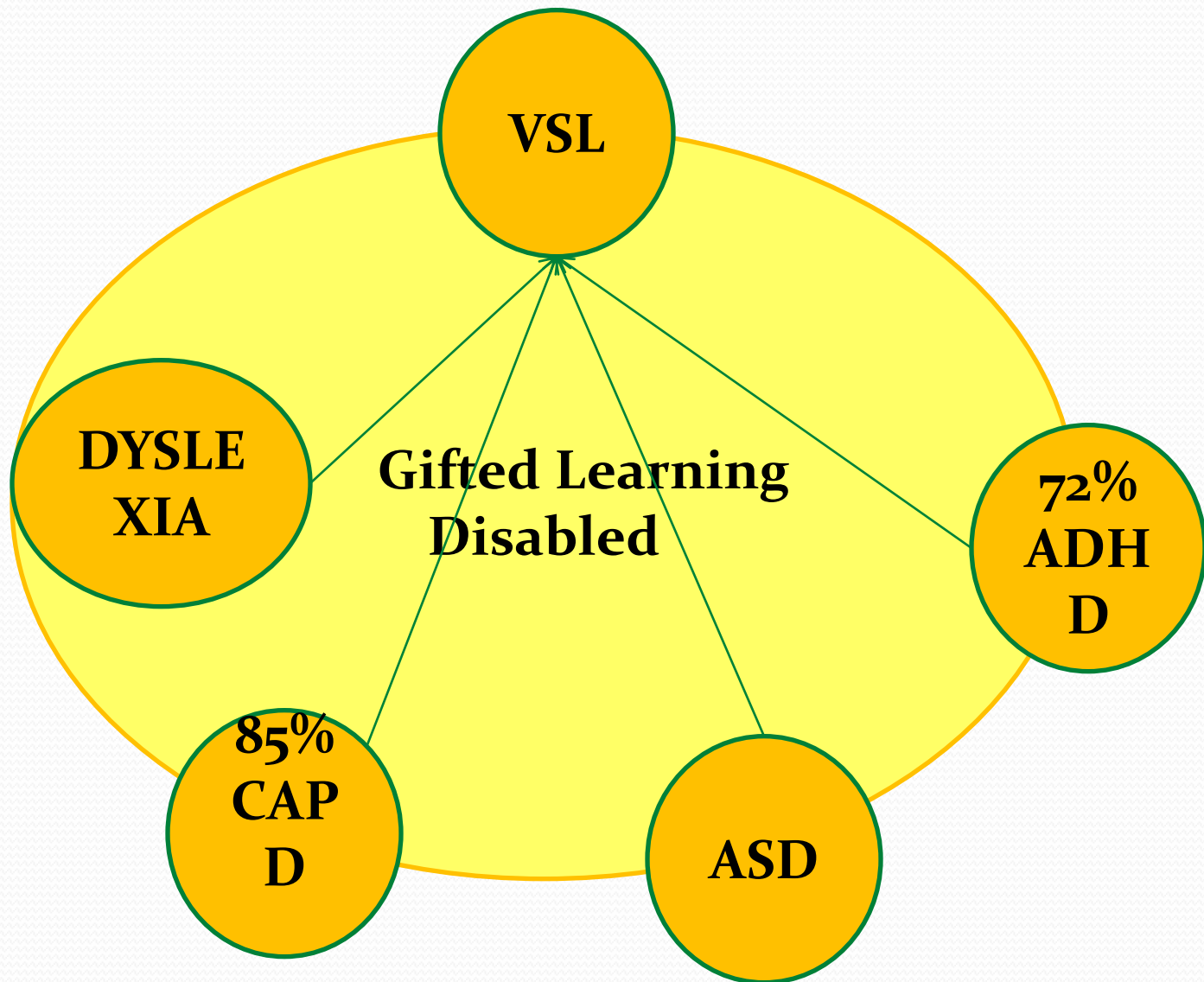Under responsive

Auditory

Visual

Low energy/weak

Movement

84% had 1 area that showed a definite difference from the norm.

30% had 4 areas that showed a definite difference from the norm.

www.suelarkey.com.au

Primitive Reflex Work is recommended.

Specialist OT to work with sensory modulation.

VSL

DYSLEXIA

Gifted Learning Disabled

72% ADHD

85% CAPD

ASD

Visual Spatial Thinking Dominance

76% of the GLD group had a dominant visual spatial thinking system as described by Dr. Linda Silverman in Upside Down Brilliance.

Most only think in

3D COLOUR MOVING IMAGES

and in a

MULTI DIMENSIONAL WAY.

But never use this ability to learn at school!

Positive Response

1. Identify & treat underlying conditions.
2. Attend to their social need to be with like minds.
3. Provide a learning structure that allows them to explore their ideas.
4. Teach them Visual Spatial Learning Strategies.
5. Remediate and support via cognitive strengths.
6. Allow them to follow their passions, especially at school. (eg PLIESE provides a great service!)
7. Provide individualized education plans.
8. Teach kids how to understand and manage the emotions of learning.
9. HAVE FAITH IN THEM

Achievement

- Occurs as a result of
  - Interaction between learning style and learning environment

- Therefore there needs to be
  - A better match between the school curriculum and learning environment and gifted students learning needs and preferences , including explicit teaching of skills related to their weaknesses and suitable adjustments to the learning environment.

Resources – Web sites

- www.australiangiftedsupport.com
- www.gifted-resources-centre.org
- www.starjumpcom.au
- www.gifteddevelopment .com
- www.giftedservices.com
- www.piecesoflearning.com
- www.hoagiesgifted.org
- www.egroups.com/group/OnTheRightSide
- www.sinetwork.org
- www.bibliofind.com
- www.inspiration.com
- www.multiplication.com
- www.apduk.org
- www.**bbc**.co.uk/schools/**typing**/
- http://picturemereading.com/index.html
- www.nswagtc.org .au