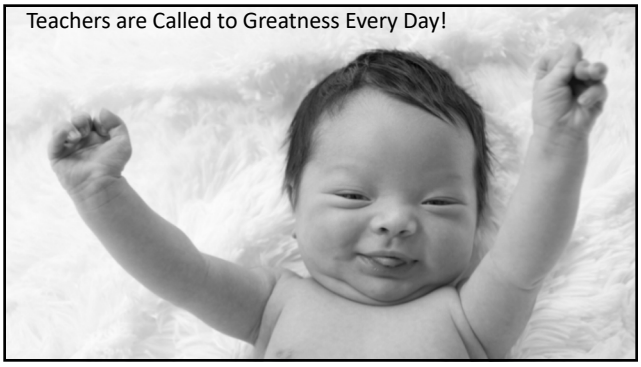
The Evaluation, Treatment and Education of Children with Developmental Disabilities

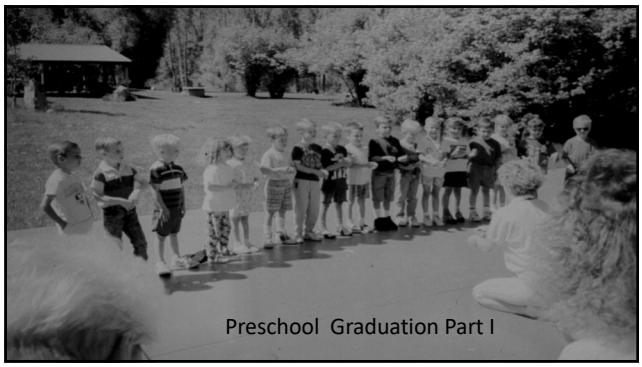
Sam Goldstein, Ph.D.
Assistant Clinical Professor
University of Utah School of Medicine

www.samgoldstein.com
info@samgoldstein.com
@drsamgoldstein
@doctorsamgoldstein

REHAB SEMINARS
GENERAL & SPECIAL EDUCATION CONFERENCES

Teachers are Called to Greatness Every Day!





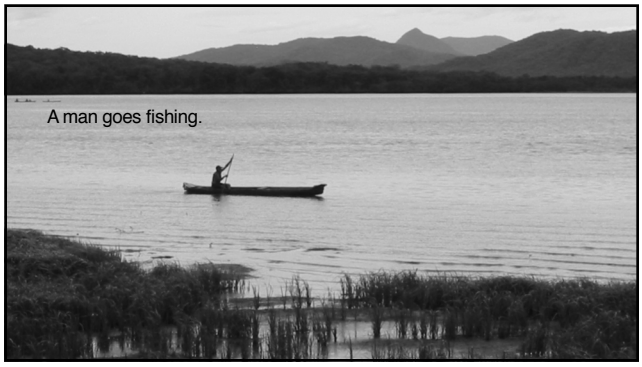
Preschool Graduation Part I

Relevant Disclosure

- My expenses for this talk are supported by Rehab Seminars.
- I have developed tests marketed by Multi- Health Systems, Pro-Ed and Western Psychological Services.
- I have authored books marketed by Springer, Wiley, Guilford, Double Day, McGraw Hill, Brookes, Kluwer and Specialty Press.
- I am Editor in Chief of the Journal of Attention Disorders (Sage) and Co-Editor of the Encyclopedia of Child Development (Springer).
- I am a compensated speaker.

Course Objectives

- Describe how normal brain growth, human development and instincts relate to the acquisition of academic knowledge, emotional regulation, socialization, and general behavior.
- Understand our changing views of child development and learning.
- Understand the role of instincts in facilitating normal child development.
- Describe a conceptual model to appreciate atypical development and abnormal behavior in childhood.
- Describe the application of three types of formal and informal means of assessment.
- Describe the role of executive functioning in a broad range of emotional, behavioral and academic phenomena
- Describe the role resilience qualities serve in insulating and protecting youth at risk
- Explain a means to evaluate impairment as a separate issue from a broad range of developmental challenges or delays
- Describe how to apply the Building Blocks model to understand and develop intervention strategies
- Describe a broad range of strategies to assist children with developmental, emotional and behavioral disorders


A man goes fishing.


The purpose of life is to prepare the next generation for their future.

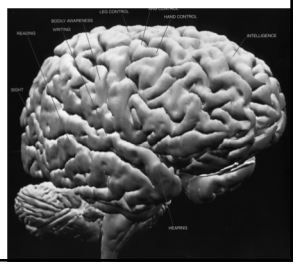
Survival of the Species

- Salmon and snakes are born with sufficient instincts to survive.
- Bear cubs require at least one or two years with their mother to insure survival.
- Higher primates require three or four years.
- Humans require at least ten years.

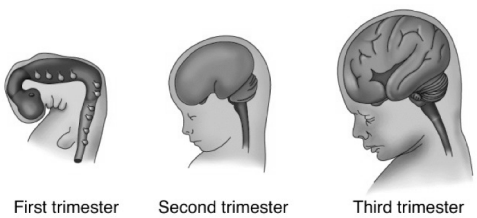


The Math of the Developing Brain

Addition, Subtraction, and Reorganization

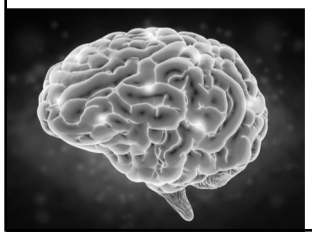


Brain Development

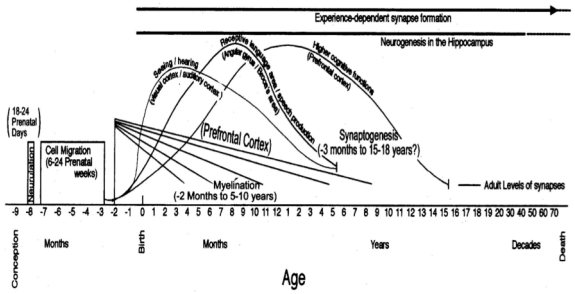


First trimester Second trimester Third trimester

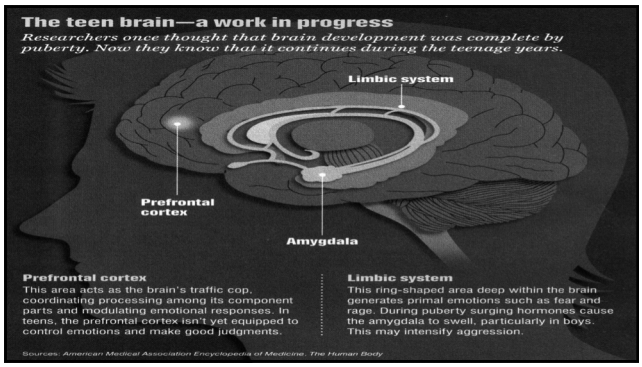
The Brain Versus the Mind



The Developmental Course of Human Brain Development



American Psychologist, January 2001



Neurological development is not a simple process of gradual growth from simple to complex.

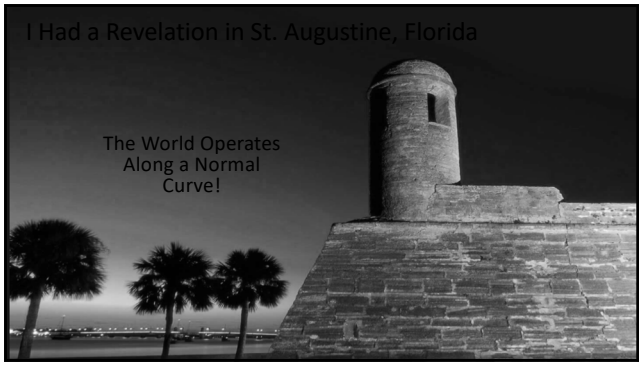
Development Occurs from Conception Through Childhood.

- Additive processes involve proliferation of neurons, development of synaptic connections and myelinization.
- Subtractive processes involve programmed cell death prenatally and synaptic pruning postnatally.
- Development is more than overproduction followed by cutting back, substantial functional reorganization takes place.

Differences in the Ways the Brain of the Young Child Differs From the Adult.

- Increased metabolic activity peaking at 150% by two years of age
- Focal or localized brain functions in adults are carried out by diffuse regions in children
- Adults utilize inhibitory processes, children do not as routinely
- Less automatization of brain mediated functions in children

Compared with the brain of the child, representation of function in the adult brain is likely to be more focal, to make greater use of inhibitory processes, and to implicate non-cortical regions associated with the automatization of skills



We have perpetuated the nineteenth century perception that raising children is a process by which information is dumped into a **BLACK BOX** lying mysteriously within the human brain.

We have also assumed a *Stepford Wives* model that all black boxes are identical.

How I Was Trained

All Children:

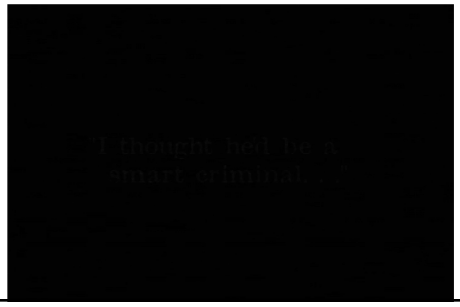
With all children. Share qualities

Possess qualities unique to them

Share positive or negative qualities with sub-groups

We must adopt a learning to ride a bike mindset.

Todd's Story



We have done a very good job of marketing school to kids.

Through the Eyes of Innocence

We have been successful in doing so because they possess many critical instincts, most importantly Intuitive Optimism and Intrinsic Motivation.

Preschool Graduation

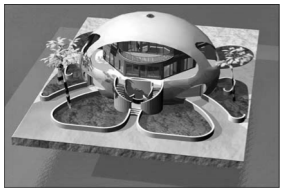
How Will They Feel and Behave in Five Years?

"The secret of education lies in respecting the student"

Ralph Waldo Emerson

The experience of growing up absent success for some students steals away opportunities to develop a resilient mindset.

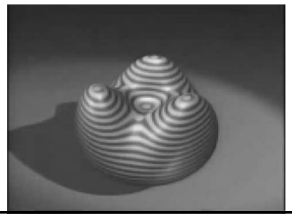
We must design schools to fit the needs of our society today . . .



. . .with an eye towards the future.

I call this educational future:

INSIDE OUT SCHOOLS!



Inside Out Schools:

- Are student focused.
- Create educational climates to foster resilient mindsets.
- Are designed in concert with the forces that drive human development.
- Provide opportunities for students to assimilate and accommodate knowledge in diverse ways (e.g. TALK, MOVE, QUESTION).
- Foster and enhance executive functioning.
- View educators as engagement coaches.

Educators are classroom engagement coaches.

As Engagement Coaches They Must:

- PREPARE – know the subject, know the student, know the strategy
- PLAN – strategize, design options
- PRACTICE – develop competence, comfort and resilience

As Engagement Coaches They Must Understand and Appreciate How to Facilitate the Four Basic Neuropsychological Abilities

- Enhance planning ability by helping students become strategic problem solvers.
- Develop attentional ability to enhance student focus on what can be controlled.
- Strengthen simultaneous ability to build student comprehension and capacity to "see the big picture".
- Build sequential ability to foster student acquisition of basic academic knowledge.

As Engagement Coaches They Must Design Classrooms to Nurture and Grow Developing Minds

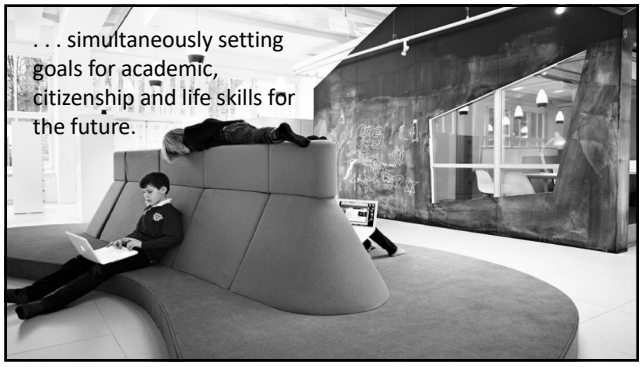
- Reinforce optimism.
- Provide opportunities for empathy and altruism.
- Provide competition in the absence of winning.
- Provide extrinsic reinforcement for effort not control.
- Provide experiences for children to develop effective executive functioning.

As Engagement Coaches They Must Design Classrooms to Nurture and Grow Developing Minds

- Minimize external consequences to control.
- Enhance self-discipline.
- Set limits in autonomous ways.
- Provide opportunities for students to develop and strengthen basic cognitive processes.
- They must understand how children learn.

A sustainable school environment must be capable of meeting the present social, emotional and academic needs of all students, while. . . . .

. . . simultaneously setting goals for academic, citizenship and life skills for the future.



Clayton Cares

Date_____

Dear mom and dad.

I missed the stamp party today because I had too many punches on my card. I got punches on my card for . . .

Having lots of think times I'm really sad.

I am going to do better in class from now on by. .

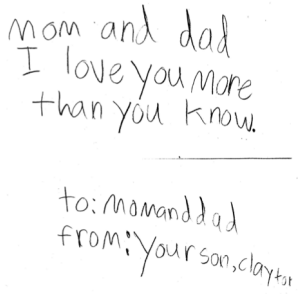
Listen me to teacher and not going to think times.

Love, Clayton

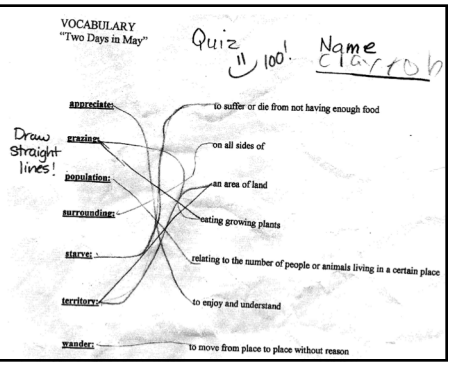
Parent Signature Jennifer Anderson

Parents: Please read, see attached stamp card, sign and return.

Please put any questions or comments on back.



Clayton Can't Get a Break



We fail to appreciate that children are genetically endowed with certain patterns of behavior and thought that shape their development and adult lives

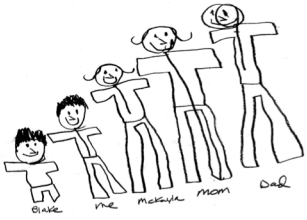
Human Instincts

- In some species instincts are fixed patterns of behavior leading to a certain outcome such as a bird building a nest for the first time or a salmon returning upriver to its' birthplace to spawn.
- Instincts in our species represent an intuitive way of thinking and/or acting increasing the chances of survival and success.
- In viewing instincts in this way we appreciate that knowing what to think or do and doing what you know or think are not synonymous and are very much dependent on experience.
- These instincts are more important than ever in preparing today's children for tomorrow's successes.

The Seven Instincts of Tenacity

TENACITY

- Intuitive Optimism
- Intrinsic Motivation
- Compassionate Empathy
- Simultaneous Intelligence
- Genuine Altruism
- Virtuous Responsibility
- Measured Fairness



We fail to appreciate that children are genetically endowed with certain instincts.

Human Instincts

- In some species instincts are fixed patterns of behavior leading to a certain outcome such as a bird building a nest for the first time or a salmon returning upriver to its' birthplace to spawn.
- Instincts in our species represent an intuitive way of thinking and/or acting increasing the chances of survival and success.
- In viewing instincts in this way we appreciate that knowing what to think or do and doing what you know or think are not synonymous and are very much dependent on experience.
- These instincts are more important than ever in preparing today's children for tomorrow's successes.

The Seven Instincts of Tenacity

- Intuitive Optimism
- Intrinsic Motivation
- Compassionate Empathy
- Simultaneous Intelligence
- Genuine Altruism
- Virtuous Responsibility
- Measured Fairness

Intuitive Optimism

- Intuitive optimism can be defined as born believing.
- The more complex the species, the longer the time taken to mature, the more tasks to be mastered, the more important it becomes to believe success or a goal is attainable.
- Intuitive implies that children do not have to learn by experience alone, they just know.
- Optimism implies that no matter what challenge comes before them they retain the belief that with perseverance they will ultimately experience success.
- Intuitive optimism explains why children absent any knowledge of their capacity or potential for success are willing to try again and again to master developmental tasks.

Intrinsic Motivation

- Intrinsic motivation is best defined as motivation from the inside out. It is not derived from guilt but from the joy of success.
- It is not derived from coercive, punitive, or reward driven parenting but from creating opportunities for children, even at young ages, to experience pleasure from success and achieving goals.
- Young children want to help even if the task is beyond their means.
- Their reward is built into the task.

Compassionate Empathy

- Empathy is the ability to understand another person's point of view.
- Such understanding is the foundation of communication, respect, and morality.
- Compassion is sympathetic pity and concern for the plight of others.
- Thus compassionate empathy is an understanding and concern for the misfortunes of others and the capacity to feel what they feel.

Simultaneous Intelligence

- Simultaneous intelligence guides our practical understanding of how elements of a problem fit together into a solution.
- Simultaneous intelligence is best defined as the ability to see how all the parts fit together when solving problems.
- This instinct is not culture or experience bound. For two thousand years intelligence was defined as how well you solved problems not how well you could read or write.
- After all, academic achievement for all is a late nineteenth century idea. Unfortunately, the advent of mandatory education 150 years has led intelligence to be largely defined as the extent to which a child possessed a body of knowledge.
- Even today many schools require advanced academic achievement or acquired knowledge along with strong simultaneous intelligence to qualify for gifted education.

Genuine Altruism

- Altruism is an unselfish concern for and support and survival of others.
- Genuine altruism is most synonymous with what we might consider as "pure" altruism.
- It is the giving of yourself with no expectation of a return for your actions.
- We help others achieve their goals even when the helper receives no immediate benefit and the person helped is a stranger.
- Genuine altruism is rare among nearly all species and may be a unique human instinct.
- Researchers have demonstrated that children as young as 18 months will readily help others to achieve their goals.
- This form of helping others without reciprocity is strongly driven by compassionate empathy and related to virtuous responsibility and measured fairness, which we will discuss below.

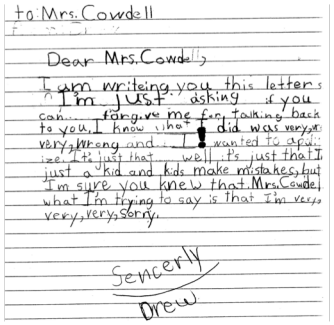
Virtuous Responsibility

- Virtue is about principles and ethics.
- The roots of virtuous responsibility run deep in our genes. Responsibility begins with the intrinsic motivation young children possess to be helpful.
- They take great pleasure when engaged in what we have called "contributory activities" as is evident in their bright smiles when their actions are complimented and appreciated.
- These contributory activities are displayed during each and every day. They want to help us cook, take care of younger siblings, rake leaves, mow the lawn, build with our tools, sweep the kitchen, and set the table.

Measured Fairness

- The instinct of measured fairness lies at the fundamental level of our social selves.
- This world and the many species in it evolved and survived based on this instinct.
- For thousands of generations being fair to others in your family or tribe insured everyone's survival.
- Everyone contributed equally. And so, fairness has its nemesis: unfairness.

Do Children Care What We Think? Part I



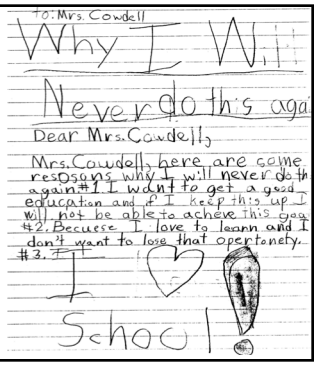
to Mrs. Cowdell

Dear Mrs. Cowdell,

I am writeing you this letter I'm just asking if you can forgive me for talking back to you. I know what I did was very very wrong and I wanted to apologize. It just that well it's just that I just a kid and kids make mistakes, but I'm sure you knew that Mrs. Cowdell what I'm trying to say is that I'm very, very, sorry.

Sencerly
Drew

Do Children Care What We Think? Part II



to: Mrs. Cowdell

Why I Will Never do this aga

Dear Mrs. Cowdell,

Mrs. Cowdell, here are some reasons why I will never do th again #1 I want to get a good education and if I keep this up I will not be able to achieve this goa #2. Because I love to learn and I don't want to lose that opertonety. #3.

I ♥ Schoo l !

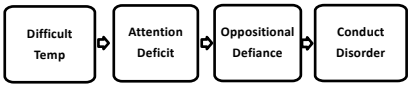
The Bus Test

Not surprisingly all but two things we do as educators and mental health professionals are dimensional!

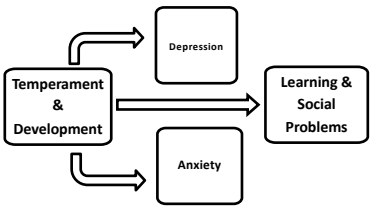
Diagnosis

Eligibility Determination

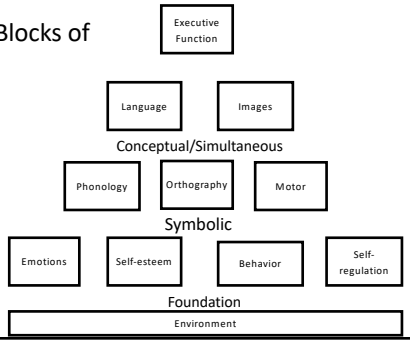
The Disruptive Continuum of Behavior



The Non-disruptive Continuum of Behavior



Building Blocks of Learning



How Shall We Understand, Define and Categorize Mental Illness and Developmental Problems in Children?

- By etiology or cause?
- By emotions, abilities, behaviors and thoughts?
- By impaired function in activities of life?

Diagnosis

Medicine/Medical.

The process of determining by examination the nature and circumstances of a diseased condition.

The decision reached from such an examination.

Eligible

adjective

Having the right to do or obtain something; satisfying the appropriate conditions.

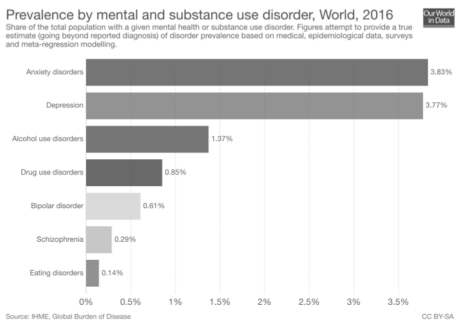
"Customers who are eligible for discounts"

Synonyms: entitled, permitted, allowed, qualified, able

"Those people eligible to vote"
(of a person) desirable or suitable as a partner in marriage.
"The world's most eligible bachelor"

Synonyms: desirable, suitable

Determining eligibility is an outcome best understood and obtained by a thorough assessment.



How distinct are these disorders from each other?

Much less so than makes me comfortable!

Co-Occurrence/Comorbidity

DX	ASD	ADHD	ODD	CD	ANX	DEP	LD
ASD		60%	13 to 27%	1 to 10%	35%	41%	45%
ADHD	60%		25 to 75%	22%	35%	41%	45%
ODD	13 to 27%	25 to 75%		42%	62%	39%	55%
CD	1 to 10%	22%	42%		42%	40%	35%
ANX	35%	35%	62%	42%		60%	30%
DEP	41%	41%	39%	40%	60%		10%
LD	45%	45%	55%	35%	30%	10%	

How distinct are these disorders from each other?

Although the National Institute of Mental Health (NIMH) has prepared well for this undertaking, much remains to be done. Rigorous diagnostic procedures are available for some mental disorders, but not all. Studies to identify the genes that influence the onset of mental disorders have been initiated, but too few are large enough to efficiently detect these genes. Dedicated investigators are working on various aspects of mental disorders, but more researchers with training in molecular and statistical genetics are required (NIH,1997)

NIH National Institute of Mental Health

How distinct are these disorders from each other?

For over a century, psychiatric disorders have been defined by expert opinion and clinical observation. The modern DSM has relied on a consensus of experts to define categorical syndromes based on clusters of symptoms and signs, and, to some extent, external validators, such as longitudinal course and response to treatment. In the absence of an established etiology, psychiatry has struggled to validate these descriptive syndromes, and to define the boundaries between disorders and between normal and pathologic variation.

Expert Review | Published: 09 January 2018

Psychiatric genetics and the structure of psychopathology

Jordan W. Smoller, Ole A. Andreassen, Howard J. Edenberg, Stephen V. Faraone, Stephen J. Glatt & Kenneth S. Kendler

Molecular Psychiatry (2018) | Download Citation

How distinct are these disorders from each other?

Before the modern era of genomic research, family and twin studies demonstrated that all major psychiatric disorders aggregate in families and are heritable. Over the past decade, the success of large-scale genomic studies has confirmed several key principles: (1) psychiatric disorders are highly polygenic, reflecting the contribution of hundreds to thousands of common variants of small effect and rare (often de novo) SNVs and CNVs; (2) genetic influences on psychopathology commonly transcend the diagnostic boundaries of our clinical DSM nosology. At the level of genetic etiology, there are no sharp boundaries between diagnostic categories or between disorder and normal variation

Expert Review · Published: 09 January 2018

Psychiatric genetics and the structure of psychopathology

Jordan W. Smoller, Ole A. Andreassen, Howard J. Edenberg, Stephen V. Faraone, Stephen J. Glatt & Kenneth S. Kendler

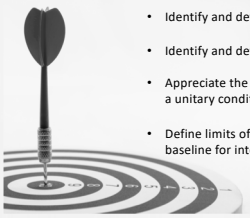
Molecular Psychiatry (2018) · Download Citation

Comorbidity is the

RULE

not the Exception

What is the Goal of a Comprehensive Evaluation?



- Identify and define symptoms?
- Identify and define strengths and weaknesses?
- Appreciate the relationship of a set of symptoms to a unitary condition?
- Define limits of functional impairment to set a baseline for intervention?

Components of a Thorough Assessment

- **History**
- **Broad Spectrum Questionnaires (Parent and Teacher)**
- **Impairment. Risk. Executive Functioning**
- **Narrow Spectrum Questionnaires (Parent and Teacher)**
- **Self report Questionnaires**
- **Ability Assessment**
- **Achievement Assessment**
- **Interview with Child**

General Guidelines for a Comprehensive Evaluation

- A distinction should be made between acute vs. chronic problems.
- Person and environment protective factors need to be understood.
- Assessment should be strength and risk focused.
- Test results should be presented in ways that are useful to consumers (e.g. family, school, etc.).
- The least amount of assessment needed to answer referral questions should be completed.

Critical Issues

- Assess for intervention
- Understand positive and negative predict
- Understand sensitivity vs. specificity
- Begin with the disruptive/non-disruptive
- Keep low incidence problems in mind
- Consider resilience (protective) factors
- Measure impairment

Critical Issues

- Demographics
- Symptoms vs. consequences
- Categories vs. dimensions
- Eligibility vs. diagnosis
- Developmental pathways: accept a moment in time
- There are no shortcuts
- Assess the environment

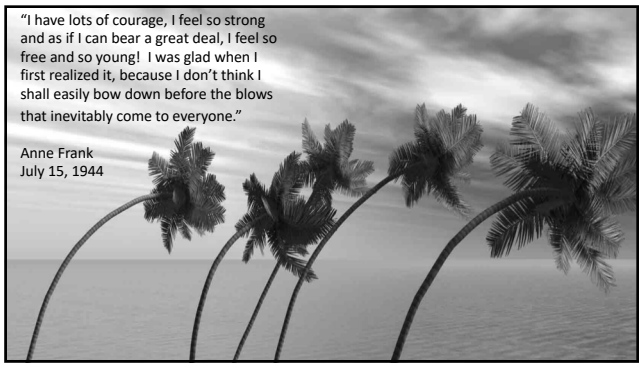
Resilience is Predicted Factors Within:

The Child

The Family

The Culture

A lesson from Michael.



"I'm not afraid about my girlfriends and myself, we'll squeeze through somehow, though I'm not too certain about my math."

Anne Frank
June 21, l942

Good Coping = Resilience

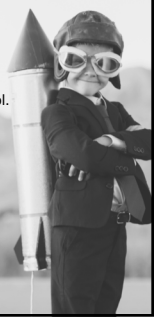
Four Waves of Resilience Research

1. Identifying person and variable-focused factors that make a difference.
2. Understanding the operation of these factors within systems with a process focus.
3. Intervening with an individual to foster resilience.
4. Making System wide changes.

Person Attributes Associated With Successful Coping*

- Affectionate, engaging temperament.
- Sociable.
- Autonomous.
- Above average IQ.
- Good reading skills.
- High achievement motivation.
- Positive self-concept.
- Impulse control.
- Internal locus of control.
- Planning skills.
- Faith.
- Humorous.
- Helpfulness.

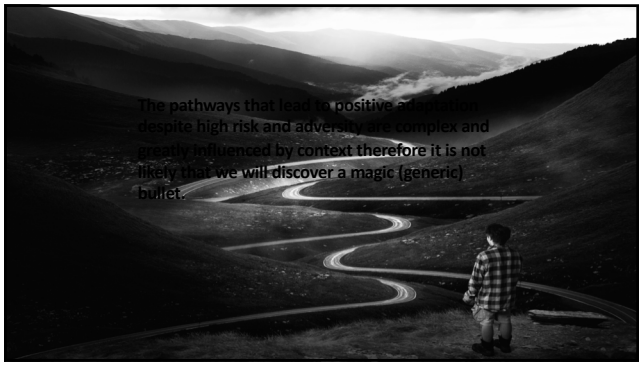
*Replicated in 2 or more studies.



Environmental Factors Associated With Successful Coping*

- Smaller family size.
- Maternal competence and mental health.
- Close bond with primary caregiver.
- Supportive siblings.
- Extended family involvement.
- Living above the poverty level.
- Friendships.
- Supportive teachers.
- Successful school experiences.
- Involvement in pro-social organizations.

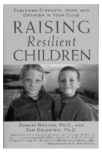
*Replicated in 2 or more studies.



Todd Progresses Through School

Assessment of Risks and Strengths
Risk Inventory and Strengths Evaluation (RISE)

- Protective (Resilience) Behaviors
  - -Emotional Balance
  - -Interpersonal Skill
  - -Self Confidence
- Risky Behaviors
  - Bullying
  - Delinquency
  - Health
  - Sexual
  - Substance Abuse
  - Suicide



RISE Overview

- The first tool to look at these concepts within the context of each other
- Ages 9 through 25 years; Parent, Teacher and Self Forms
- 15-20 minutes administration time
- Norm-referenced *T*-scores examine broad constructs of risk and strength
- Response validity scores also available
- For educational psychologists, counselors, clinical psychologists and other mental-health professionals working with children, adolescents and young adults (Level C)

Validity: Clinical Groups

At-Risk Sample (n = 160): Key validation sample for RISE: qualifying for prevention and intervention services because of unfavorable socioeconomic circumstances, current gang members, ex-gang members, and youth on probation

RISE scores differentiate at-risk youth from typically developing youth with ***large, clinically significant effect sizes.***

Validity studies also cover a range of additional groups (clinician-assigned diagnosis):

- Gang Membership
- Suicidality/Depression
- ADHD
- ASD
- Eating Disorders
- Substance Abuse

Ability, Knowledge and Skill

Five Key Early Achievement Abilities
- Label
- Association
- Retrieval
- Sequence
- Orthographic

PASS Theory

- **PASS** theory is a neuropsychological way to define and measure 'ability' based on
  - **P**lanning = THINKING ABOUT THINKING
  - **A**ttention = BEING ALERT
  - **S**imultaneous = GETTING THE BIG PICTURE
  - **S**uccessive = FOLLOWING A SEQUENCE

98

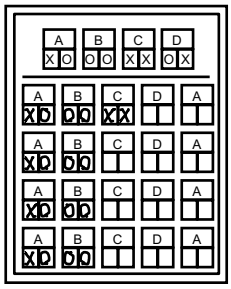
PASS Theory: Planning

Planning is a neurocognitive ability that a person uses to determine, select, and use efficient solutions to problems
- problem solving
- developing plans and using strategies
- retrieval of knowledge
- impulse control and self-control
- control of processing

99

Planned Codes

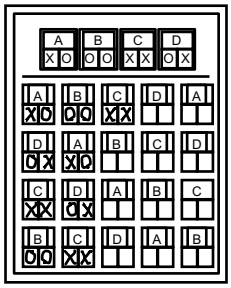
- Child fills in the codes in the empty boxes
- Children are encouraged to think of a good way to complete the page



100

Planned Codes

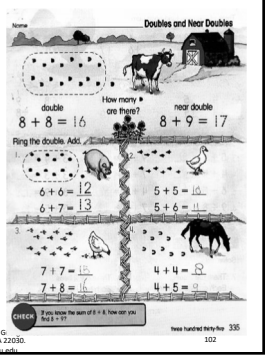
- Page 2
- What is a good plan to complete this page?
- Note orientation



101

Math Strategies

Note to the Teacher:
When we teach children skills by helping them use strategies and plans for learning, we are teaching both knowledge and processing. Both are important.

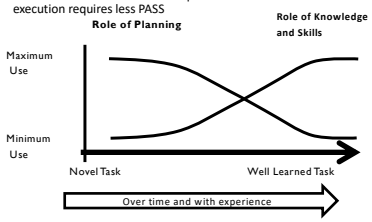


Jack A. Naglieri, Ph.D. G.
Univ, Fairfax, VA 22030.
naglieri@gmu.edu

102

Knowledge and Planning Learning Curves

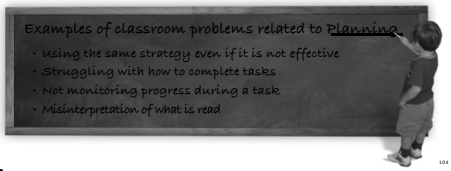
- Learning depends upon instruction and intelligence (PASS)
- At first, PASS plays a major role in learning
- When a new task is learned and practiced it becomes a skill and execution requires less PASS



PASS Theory: Planning

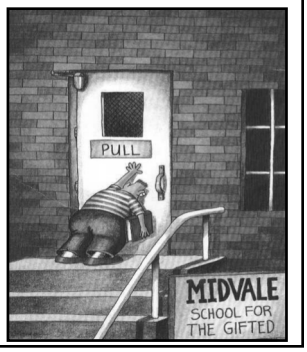
Planning

- Evaluate a task
- Select or develop a strategy to approach a task
- Monitor progress during the task
- Develop new strategies when necessary



104

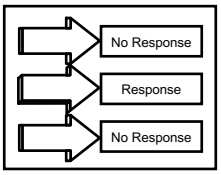
POOR PLANNING



PASS Theory

Attention is a basic neurocognitive ability we use to selectively attend to some stimuli and ignores others

- focused cognitive activity
- selective attention
- resistance to distraction



106

CAS2 Expressive Attention

The child says the color not the word. Score is time and number correct

RED	BLUE	GREEN	YELLOW
YELLOW	GREEN	RED	BLUE
RED	YELLOW	YELLOW	GREEN
BLUE	GREEN	RED	BLUE
GREEN	YELLOW	RED	YELLOW

107

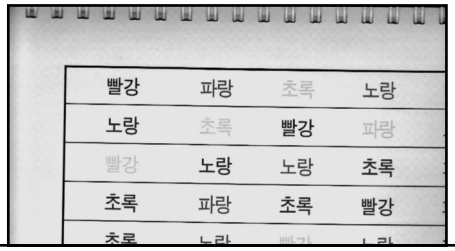
Expressive Attention - Italiano

ROSSO	BLU	VERDE	GIALLO
GIALLO	VERDE	ROSSO	BLU
ROSSO	GIALLO	GIALLO	VERDE
BLU	VERDE	ROSSO	ROSSO
VERDE	GIALLO	BLU	GIALLO

108

Expressive Attention – Korean CAS

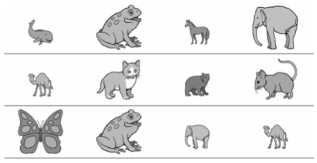
- The child says the color not the word



109

Expressive Attention: 5-7 years

The child tells if the animal is large or small, regardless of the relative size on the page.

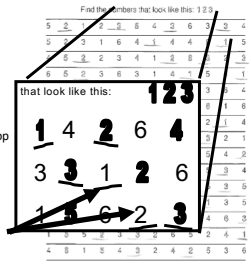


110

Number Detection

- Items 1 - 4 have 180 numbers on each page
- Each child is given two pages
- Targets appear at the top of the page
- Score for targets found and

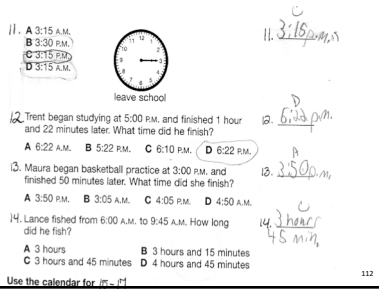
false detections



111

Attention

This sheet has a strong Attention demands because of the similarity of the options



11. **A** 3:15 A.M.
B 3:30 P.M.
C 3:15 P.M.
D 3:15 A.M.

leave school

12. Trent began studying at 5:00 P.M. and finished 1 hour and 22 minutes later. What time did he finish?

A 6:22 A.M. **B** 5:22 P.M. **C** 6:10 P.M. **D** 6:22 P.M.

13. Maura began basketball practice at 3:00 P.M. and finished 50 minutes later. What time did she finish?

A 3:50 P.M. **B** 3:05 A.M. **C** 4:05 P.M. **D** 4:50 A.M.

14. Lance fished from 6:00 A.M. to 9:45 A.M. How long did he fish?

A 3 hours **B** 3 hours and 15 minutes
C 3 hours and 45 minutes **D** 4 hours and 45 minutes

Use the calendar for

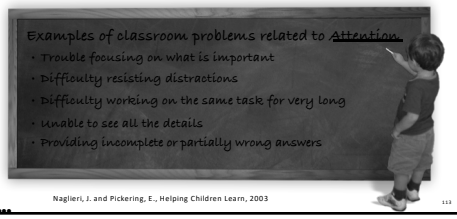
11. C 3:15 p.m.
12. D 6:22 p.m.
13. A 3:50 p.m.
14. C 3 hour 45 min

112

PASS Theory: Attention

Attention

- Focus on one thing and ignore others
- Resist distractions in the learning environment



Naglieri, J. and Pickering, E., Helping Children Learn, 2003

113

PASS Theory

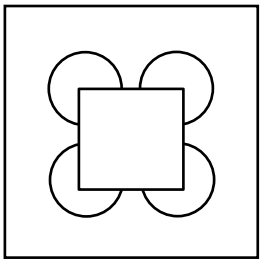
Simultaneous processing is a basic neurocognitive ability which we use to integrate stimuli into groups

- Stimuli are seen as a whole
- Each piece must be related to the others
- Wechsler Nonverbal Scale
- KABC Simultaneous Scale

114

PASS Theory

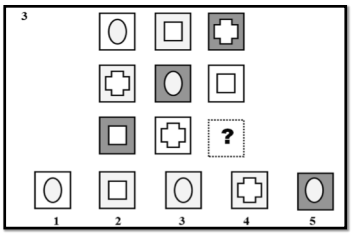
- **Simultaneous** processing is what Gestalt psychology was based on
- Seeing the whole



115

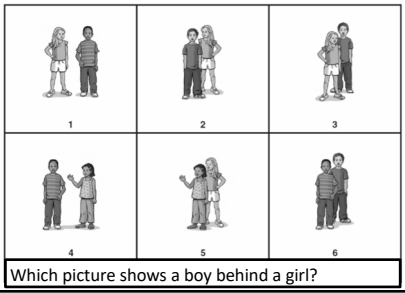
CAS2 Matrices

Child selects one of the options that best completes the matrix



116

CAS2 Verbal-Spatial Relations

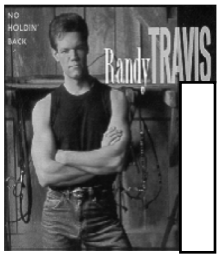


Which picture shows a boy behind a girl?

Simultaneous Verbal Task

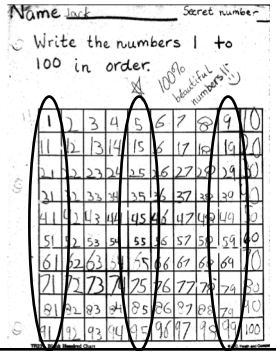
- Simultaneous processing using verbal content
- Who is this song about?

My momma's daddy was his oldest son.



Numbers from 1 to 100

How is … Simultaneous processing facilitated by this work sheet?



119

Simultaneous Processing at Work!

120

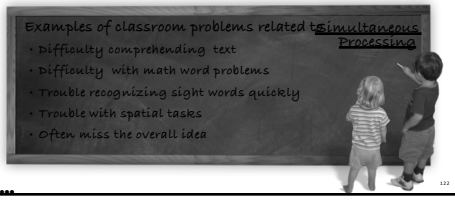
Simultaneous Processing at Work!

121

PASS Theory: Simultaneous

Simultaneous Processing

- Relate separate pieces of information into a group
- See how parts related to whole
- Recognize patterns

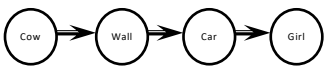


122

PASS Theory: Successive

Successive processing is a basic neurocognitive ability which we use to manage stimuli in a specific serial order

- Stimuli form a chain-like progression
- Stimuli are not inter-related



123

Word Series

The child repeats a series of words in the same order the examiner says them.

1. Wall-Car
2. Shoe-Key
…
10. Cow-Wall-Car-Girl
11. Dog-Car-Girl-Shoe-Key
…
27. Cow-Dog-Shoe-Wall-Man-Car-Girl-Key-Book

124

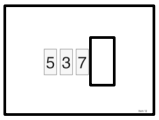
Sentence Repetition (Ages 5-7) or Sentence Questions (Ages 8-17)

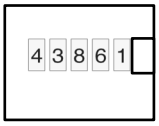
- Sentence Repetition
  - Child repeats sentences exactly as stated by the examiner such as:
  - The red greened the blue with a yellow.
- Sentence Questions
  - Child answers a question about a statement made by the examiner such as:
  - The red greened the blue with a yellow. Who got greened?

125

CAS2

- Visual Digit Span subtest allows for a Visual Auditory comparison





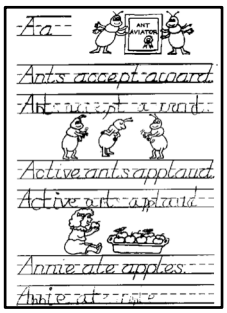
Visual–Auditory Comparison

	Scaled Score
Word Series	_____
Visual Digit Span	_____
Difference (ignore sign)	_____
Circle one: .05 .10 NS	

126

Successive

The sequence of the sounds is emphasized in this work sheet.



127

Learning Math Facts

8 + 9 = 1 7

8 + 9 = 1 7

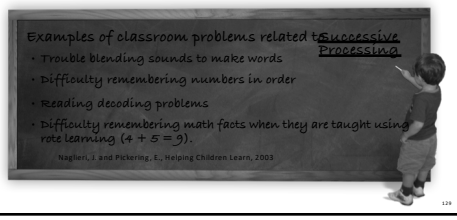
8 + 9 = 1 7

⇨ ⇨ ⇨ ⇨ ⇨ ⇨

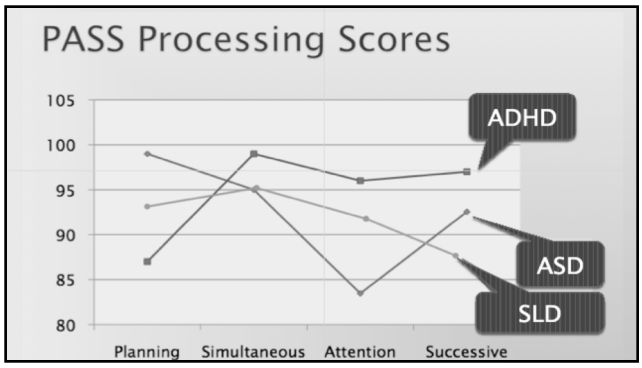
PASSTheory: Successive

Successive Processing

- Use information in a specific order
- Follow instructions presented in sequence



129



Components of a Thorough Assessment

Step 1: History
Step 2: Assess Impairment (RSI), EF (CEFI) and Risk (RISE)
Step 3: Broad Spectrum: Conners CBRS or Conners EC
Step 4: Decide on Narrow Spectrum Questionnaires:
- Disruptive Problems: Conners 3
- Non-Disruptive:
  - ASRS
  - MASC 2
  - CDI 2
  - CAS Teacher Questionnaire

Step 5: Achievement & Ability Testing
Step 6: Resilience
Step 7: Personality

Obtain a Thorough History

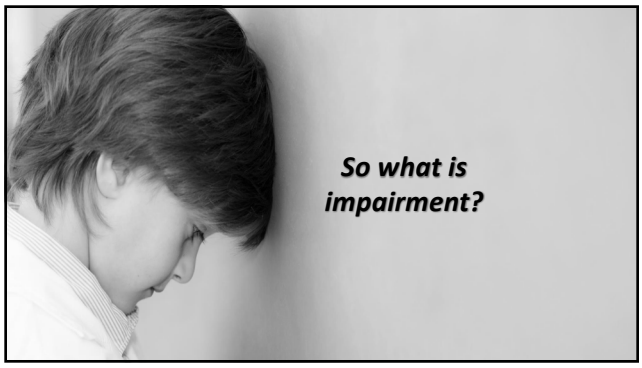
- Immediate and extended family risks.
- Pregnancy and delivery
- Infancy and toddlerhood (temperament)
- Preschool and school history
- Socialization
- Family relations
- Sleep, appetite and hygiene
- Past treatments or educational services
- Discipline
- Situational problems

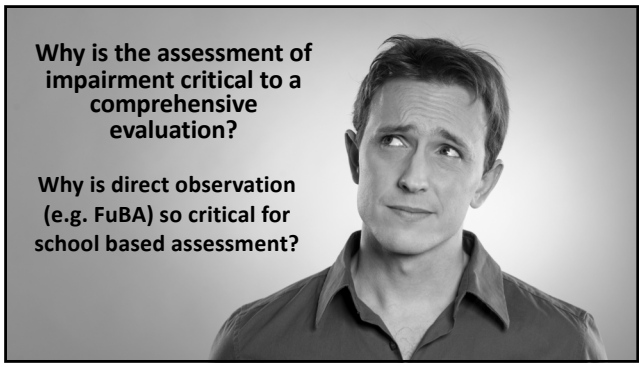
Why is the assessment of impairment critical to a comprehensive evaluation??

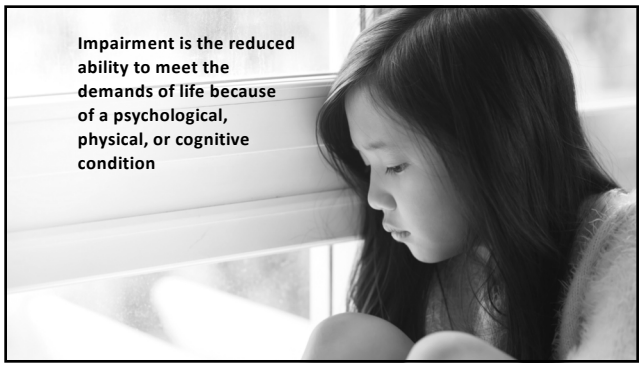
An exhaustive review of the literature demonstrates that the relationship between symptoms and functioning remains unexpectedly weak and often bidirectional (McKnight and Kashdan, 2009).

Need

- There is a clear need to measure **"impairment"** when using the IDEIA, Diagnostic and Statistical Manual of the American Psychiatric Association (DSM) or the International Classification of Diseases (ICD) as a guide to eligibility determination and/or diagnosis.







Symptoms vs. Impairment

Impairment is not the same as symptoms

- Symptoms are physical, cognitive or behavioral **manifestations** of a disorder.
- Impairments are the functional **consequences of these symptoms.**

vs.

Inattention

Difficulty completing homework

IMPAIRMENT VS. ADAPTIVE BEHAVIOR

A skill deficit occurs when a person does not know how to perform an everyday task, whereas a deficit in performance occurs when an individual has acquired a skill, yet does not seem to use it when needed.

(Ditterline & Oakland, 2009)

IMPAIRMENT VS. ADAPTIVE BEHAVIOR

Thus, while measures of adaptive behavior emphasize the presence of adaptive skills in daily functioning, measures of functional impairment tend to emphasize the outcome of a behavior or the performance of an individual rather than the presence or absence of the skill.

Ditterline & Oakland (2009); Dumas et al. 2010); Gleason & Coster (2012)

Adaptive Behavior vs. Impairment

Skill vs **Performance**

Adaptive Behavior vs. Impairment

vs.

Using utensils

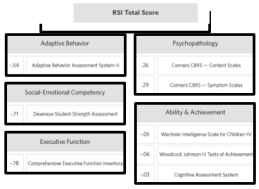
Not using utensils to eat

Symptoms vs. Impairment

Impairment can exist absent of formal diagnosis.
(Balazs et al., 2013; Wille et al., 2008)

In one study 14.2% of a sample of children were significantly impaired without a formal diagnosis.
(Angold et al., 1999)

Relationship Between the Rating Scale of Impairment and Other Measures



Consequences of inattention

- Conditions under which problems with consequences are observed
  - Delayed
  - Infrequent
  - Unpredictable
  - Lacking saliency

148

Todd Finds a Path

ADHD is a developmental disability with a childhood onset that typically results in a chronic and pervasive pattern of impairment in school, social and/or work domains, and often in daily adaptive functioning.

What is ADHD?

ADHD is a biopsychosocial condition characterized by core symptoms of inattention, hyperactivity and impulsivity leading to/interacting with cognitive deficits causing impairment in all walks of life.

151

What is ADHD?

- ADHD appears to primarily involve the basal ganglia, cerebellum and variably the frontal lobes, depending on associated learning difficulties.
- Comorbidity with ADHD probably confounds findings from different study groups. (Hendren et al, 2000)
- The symptoms of ADHD Lead to a Nearly Infinite Number of Consequences

152

Inattention

- Conditions under which inattention is observed:
  - Repetitive
  - Effortful
  - Uninteresting
  - Not chosen

153

Self-regulation

- The ability to inhibit
- The ability to delay
- The ability to separate thought from feeling
- The ability to separate experience from response
- The ability to consider an experience and change perspective
- The ability to consider alternative responses

154

Self-regulation

- The ability to choose a response and act successfully towards a goal
  - The ability to change the response when confronted with new data
- The ability to negotiate life automatically
- The ability to track cues

155

Children with ADHD aren't Clue-less

They are unfortunately often cue-less!

156

Poor Self-regulation

- Poor self-regulation is synonymous with
  - poor self-control
- Poor self-regulation leads to
  - impulsive behavior

157

Psychiatric Concerns

- Antisocial personality disorder(7-18%)
- Substance use disorders: Alcohol (32-53%), Marijuana (15-21%), Other (8-32%)
- Dysthymia (19-37%)
- Major Depression (16-31%)
- Bipolar Disorder (0-6%)
- Learning Disabilities (0-30%)
- Anxiety (0-20%)

Emerging Personality Disorders in Teens With ADHD

- Anti-social personality (22%)
- Passive aggressive personality (19%)
- Borderline personality (14%)
- Histrionic (11%)
- Avoidant (11%)

(Barkley et al, 1998)

Personality Issues in Teens With ADHD

- Pessimistic, negative world view
- External locus of control
- Self-centered style
- Chaotic life-style
- Disorganized
- Introversive
- Passive

(Robin et al, 1998)

These personality issues comprise 55% of adults with ADHD vs. only 12% of the unaffected population

Behavior Manifestations

- Trouble focusing/concentrating
- Distractible/sidetracked
- Trouble finishing tasks
- Themes of intense frustration
- Underachievement

Behavior Manifestations

- Poor organization and planning
- Procrastination
- Mental/physical restlessness
- Impulsive decision making
- Frequent impulsive job changes
- Poor academic grades for ability
- Chronic lateness
- Frequently lose/misplace things

Work and School Concerns

- Poor self-regulation
- Can't sustain attention to paperwork
- Trouble staying alert and focused
- Poor organization and planning
- Procrastination
- Poor time management
- Subjective sense of restlessness

Work and School Concerns

- Impulsive decision making
- Unable to work well independently
- Trouble following directions
- Change jobs impulsively
- Often late
- Forgetful
- Poor self-discipline.

Interpersonal Concerns

- Impulsive comments to others
- Quick to demonstrate emotion
- Stress intolerance
- Poor adherence to obligations
- Viewed by others as immature
- Talk excessively/listen poorly
- Problems sustaining friendships and relationships
- Miss social cues

Adaptive Behavior Problems

- Trouble with financial matters including checkbooks, money management, debt, and impulsive spending
- Trouble organizing/maintaining the home
- Spouse may feel overburdened
- Inconsistent/unreliable
- Driving problems
- Habit and abuse problems

Emotional Problems

- Immaturity (50%)
- Low frustration tolerance
- Over-reaction to situations
- Poor self-esteem
- Demoralization

Executive Function

Goldstein, Naglieri, Princiotta, & Otero (2013)

- We found more than 30 definitions of EF(s).
- Executive function(s) has come to be an umbrella term used for many different abilities, including planning, working memory, attention, inhibition, self-monitoring, self-regulation and initiation carried out by pre-frontal areas of the frontal lobes.

170

What is/are Executive Function(s)

There is no formal excepted definition of EF

- We typically find a vague general statement of EF (e.g., goal-directed action, cognitive control, top-down inhibition, effortful processing, etc.).
- Or a listing of the constructs such as
  - Inhibition,
  - Working Memory,
  - Planning,
  - Problem-Solving,
  - Goal-Directed Activity,
  - Strategy Development and Execution,
  - Emotional Self-Regulation,
  - Self-Motivation

171

Does Experience Shape EF?

- The Family Life Project has demonstrated that poverty is associated with elevated cortisol in infancy and early childhood.
- This association is mediated through characteristics of the household.
- Parenting sensitivity mediates the relationship between poverty and stress physiology.
- In combination parenting sensitivity and elevated cortisol mediate the association between poverty and poor EF in children.

What Neural Activities Require EF?

- Those that involve planning or decision making.
- Those that involve error correction or troubleshooting.
- Situations when responses are not well-rehearsed or contain novel sequences of actions.
- Dangerous or technically difficult situations.
- Situations that require the overcoming of a strong habitual response or resisting temptation.

173

What is Executive Function(s)

1. Barkley (2011): "EF is thus a **self-directed set of actions**)" (p. 11).
2. Dawson & Guare (2010): "Executive skills allow us **to organize our behavior over time**" (p. 1).
3. Delis (2012): "Executive functions reflect the **ability to manage and regulate one's behavior** (p. 14).

174

What is Executive Function(s)

4. Denckla (1996): "EF (is) a set of **domain-general control processes**…" (p. 263).
5. Gioia, Isquith, Guy, & Kenworthy (2000): "a **collection of processes that are responsible for guiding, directing, and managing cognitive, emotional, and behavioral functions**" (p. 1).

175

What is Executive Function(s)

6. Pribram (1973): "**executive programmes …to maintain brain organization** " (p. 301).
7. Roberts & Pennington (1996): EF "**a collection of related but somewhat distinct abilities such as planning, set maintenance, impulse control, working memory, and attentional contro**l" (p. 105).

176

What is Executive Function(s)

6. Stuss & Benson (1986): "**a variety of different capacities that enable purposeful, goal-directed behavior, including behavioral regulation, working memory, planning and organizational skills, and self-monitoring**" (p. 272).
7. Welsh and Pennington (1988): "the **ability to maintain an appropriate problem-solving set for attainment of a future goal**" (p. 201).

177

What is Executive Function(s)

10. McCloskey (2006): "a **diverse group of highly specific cognitive processes collected together to direct cognition, emotion, and motor activity,** including …the **ability to engage in purposeful, organized, strategic, self-regulated, goal directed behavior**" (p. 1)

"think of executive functions as a set of independent but coordinated processes rather than a single trait" (p. 2).

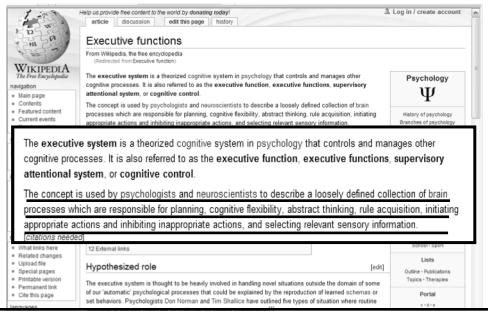
178

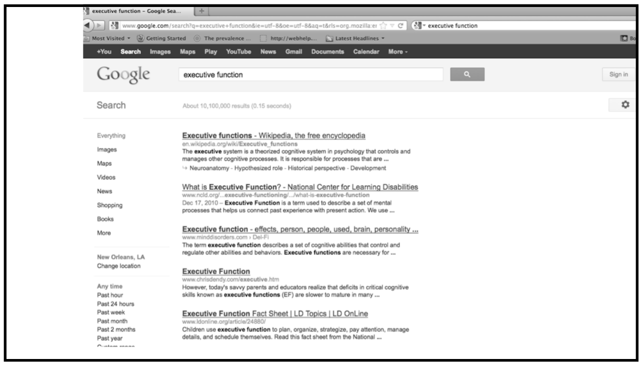
What is Executive Function(s)

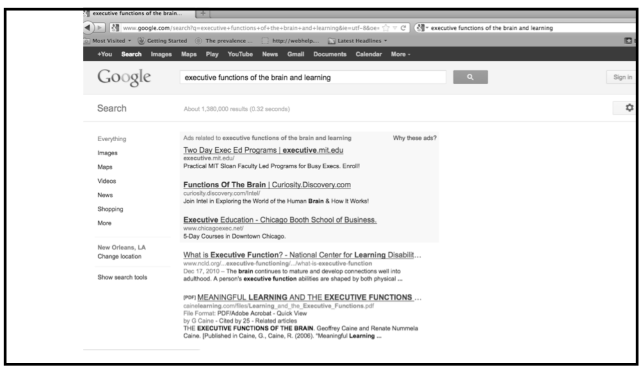
10. Lezak (1995): "**a collection of interrelated cognitive and behavioral skills that are responsible for purposeful, goal-directed activity**," …
11. "**how and whether a person goes about doing something**" (p. 42).
12. Luria (1966): "… **ability to correctly evaluate their own behavior and the adequacy of their actions**" (p. 227).

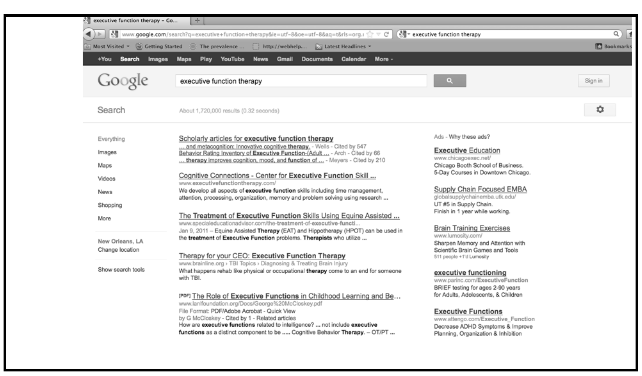
179

Executive Functions




Google
executive function
Search
Executive functions - Wikipedia, the free encyclopedia
What is Executive Function? - National Center for Learning Disabilities
Executive Function
Executive Function Fact Sheet | LD Topics | LD OnLine


Google
executive functions of the brain and learning
Search
Two Day Exec Ed Programs | executive.mit.edu
Functions Of The Brain | Curiosity.Discovery.com
Executive Education - Chicago Booth School of Business.
What is Executive Function? - National Center for Learning Disabilit...
MEANINGFUL LEARNING AND THE EXECUTIVE FUNCTIONS ...


Google
executive function therapy
Search
Scholarly articles for executive function therapy
Cognitive Connections - Center for Executive Function Skill ...
The Treatment of Executive Function Skills Using Equine Assisted ...
Therapy for your CEO: Executive Function Therapy
The Role of Executive Functions in Childhood Learning and Be...
Executive Education
Supply Chain Focused EMBA
Brain Training Exercises
executive functioning
Executive Functions

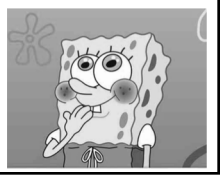
And Finally. . . .

A NICHD panel in 1994
identified 33 EFs by consensus!

184

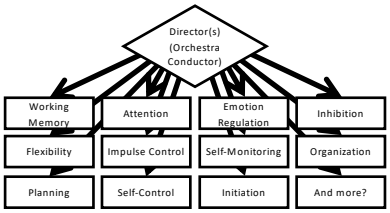
The Top Six Were:

- Self-regulation
- Sequencing of behavior
- Flexibility
- Response inhibition
- Planning
- Organization of behavior



Three Categories of Theories

- Regulators that control
- Abilities (cognitive processes)
- Behaviors



186

Executive Function(s)

Given all these definitions of EF(s) we wanted to address the behavioral question…

Executive Function***s …*** or

Executive Function?

187

Executive Function(s)

- One way to examine this issue is to research the factor structure of behaviors related to EF(s)
- To do so, we examined the factor structure of the Comprehensive Executive Function Inventory (CEFI)
- We conducted a series of research studies to answer the following question:
  - What is the underlying structure of the behaviors assessed on the CEFI?
  - Is there just one underlying factor called executive function), or do the behaviors group together into different constructs suggesting a multidimensional structure?

188

Item Factor Analyses – Part 1

- For the *first half* of the normative sample for Parent, Teacher and Self ratings' **item scores** (90 items) was analyzed using exploratory factor analysis
- The *scree plots* and the *very simple solution* criterion both indicated that only **one factor**.
- The *ratio of the first and second eigenvalues* was greater than four for all three forms, which indicated a **one factor solution.**

189

Item Factor Analyses – Part 1

Item level factor analysis clearly indicted that one factor was the best solution

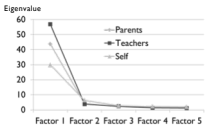


Table 8.2. Eigenvalues from the Inter-Item Correlations

	Factor						
Form	1	2	3	4	5	6	7
Parent	43.7	4.1	2.3	1.5	1.3	1.3	1.0
Teacher	56.8	3.8	2.3	1.3	1.1	1.1	0.8
Self-Report	29.9	6.3	2.7	2.1	1.9	1.8	1.5

Note. Extraction nopal Axis Factoring. Only the first 10 eigenvalues are presented.

190

SCALE FACTOR ANALYSES – PART 2

- Using the *second half* of the normative sample EFA was conducted using raw scores for the Attention, Emotion Regulation, Flexibility, Inhibitory Control, Initiation, Organization, Planning, Self-Monitoring, and Working Memory scales
- Both the Kaiser rule (eigenvalues > 1) *and* the Eigen value Ratio criterion (> 4) unequivocally indicated **one factor**.

191

Item Factor Analyses – Part 2

Scale level factor analysis clearly indicted that one factor was the best solution

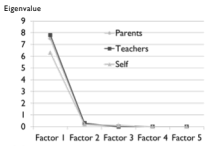


Table 8.4. Eigenvalues of the CEFI Scales Correlations

	Factor						
Form	1	2	3	4	5	6	7
Parent	7.5	0.2	0.0	0.0	0.0	0.0	0.0
Teacher	7.8	0.3	0.0	0.0	0.0	0.0	0.0
Self-Report	6.3	0.2	0.1	0.0	0.0	0.0	-0.1

Note. Extraction method: Pig.

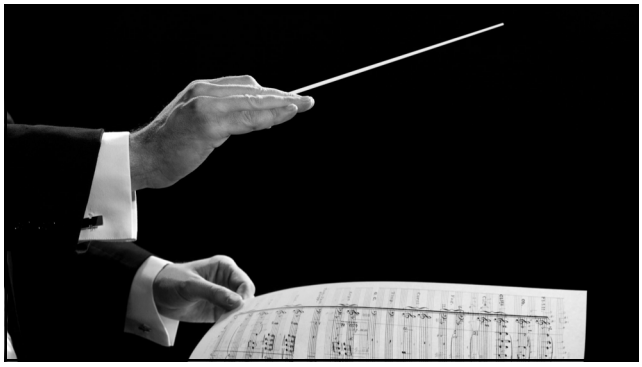
192

Exploratory Factor Analyses

Conclusion:

When using parent (N = 1,400), teacher (N = 1,400), or self-ratings (N = 700) based on behaviors observed and reported for a nationally representative sample (N = 3,500) aged 5 to 18 years Executive Function *not* functions is the best behavioral term to use.

193



EF as a Mediator of Ability and Knowledge

- Ability: The skills we use to acquire and manipulate knowledge to solve problems. Also referred to as intelligence.
- Knowledge: Everything we learn in life. Also referred to as achievement.
- Executive Function: How efficiently or skillfully you do what you decide to do.

195

Why Does Executive Function Matter?

EF is essential for success in daily living including:

Academic & occupational functioning
- For more information see: Best et al,. 2009, Miller et al., 2012; Valiente et al., 2013

Interpersonal problems
- For more information see: Sprague et al., 2011; De Panfilis et al., 2013

Physical health
- For more information see: Hall et al., 2006, Falkowski et al., 2014

Mental health
- For more information see: Willcutt et al., 2005; Bora et al., 2009; Mesholam-Gatey et al., 2009; Snyder, 2013

Group Differences: ADHD

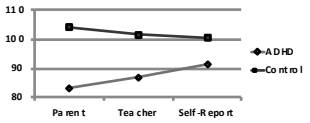


Table 8.19 Differences Between ADHD and Matched General Population Samples: CEFI Full Scale

Form		ADHD	Matched Gen. Pop.	d-ratio	*F* (*df*)	*P*
Parent	*M*	83.1	101.9	-1.59	216.56 (1, 340)	< .001
	SD	13.0	13.0			
	N	171	171			
Teacher	*M*	86.7	101.1	-1.07	79.93 (1, 278)	< .001
	SD	13.5	13.5			
	N	138	142			
Self-Report	*M*	91.2	100.3	-0.62	22.21 (1, 232)	< .001
	SD	14.7	14.7			
	N	117	117			

Note. ADHD = Attention-Deficit/Hyperactivity Disorder; Gen. Pop. = General Population.

197

Group Differences: ASD

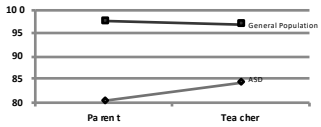


Table 8.20 Differences Between ASD and Matched General Population Samples: CEFI Full Scale

Form		ASD	Matched Gen. Pop.	d-ratio	*F* (*df*)	*P*
Parent	*M*	80.4	97.7	-1.41	48.96 (1, 96)	< .001
	SD	12.2	12.2			
	N	48	50			
Teacher	*M*	84.3	96.9	-0.99	23.11 (1, 92)	< .001
	SD	12.7	12.7			
	N	47	47			

198

Group Differences: Learning Disabilities

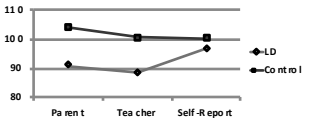


Table 8.22 Differences Between LD and Matched General Population Samples: CEFI Full Scale

Form		LD	Matched Gen. Pop.	*d*-ratio	*F* (*df*)	*p*
Parent	*M*	90.8	103.9	-0.92	19.89 (1, 93)	< .001
	SD	14.4	14.4			
	N	47	48			
Teacher	*M*	88.4	100.6	-0.91	37.29 (1, 178)	< .001
	SD	13.4	13.4			
	N	90	90			
Self-Report	*M*	96.6	100.0	-0.21	1.45 (1, 126)	0.231
	SD	15.9	15.9			
	N	64	64			

199

Group Differences: Mood Disorders

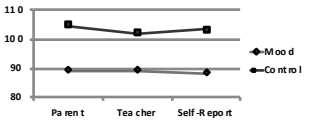


Table 8.21 Differences Between Mood Disorder and Matched General Population Samples: CEFI Full Scale

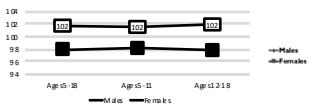
Form		Mood Disorder	Matched Gen. Pop.	*d*-ratio	*F* (*df*)	*p*
Parent	*M*	88.9	104.3	-1.11	22.66 (1, 71)	< .001
	SD	13.8	13.8			
	N	36	37			
Teacher	*M*	88.9	101.7	-1.01	14.9 (1, 57)	< .001
	SD	12.8	12.8			
	N	29	30			
Self-Report	*M*	88.0	103.1	-1.09	16.34 (1, 53)	< .001
	SD	13.9	13.9			
	N	27	28			

200

CEFI Gender Differences: Parent Raters

Girls are Smarter than Boys

Parents		Mn	SD	N	Mn	SD	ES
Ages 5-18	700	**98.1**	14.9	699	**101.8**	15.0	**-0.25**
Ages 5-11	350	**98.2**	14.3	349	**101.6**	15.6	**-0.22**
Ages 12-18	350	**97.9**	15.4	350	**102.0**	14.4	**-0.28**

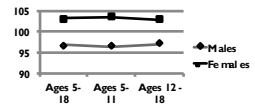


201

CEFI Gender Differences: Teacher Raters

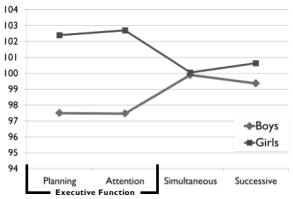
Girls are Smarter than Boys

Teachers	N	Mn	SD	N	Mn	SD	ES
Ages 5-18	700	**96.7**	14.4	700	**103.2**	15.0	**-0.44**
Ages 5-11	350	**96.4**	14.5	350	**103.5**	14.9	**-0.49**
Ages 12-18	350	**97.0**	14.4	350	**102.9**	15.0	**-0.40**



202

Gender Differences: Abilities Associated With EF



203

EF Impacts Performance on Intelligence, Achievement and Neuropsychological Tests

- Data from the Neurology, Learning and Behavior Center in Salt Lake City, UT
- Children given the CEFI, WISC-IV (N = 43), CAS (N = 62), and the WJIII achievement (N = 58) as part of a typical test battery.

204

EF Behaviors and Intelligence

	WISC-IV					CEFI	
	FS	VC	PR	WM	PS	Mn	SD
CEFI							
Full Scale	.39	.44	.27	.30	.34	93.0	11.9
Attention	.39	.33	.32	.40	.35	91.8	11.2
Emotion Regulation	.14	.25	.08	-.06	.11	97.2	14.7
Flexibility	.57	.68	.45	.46	.37	93.8	11.0
Inhibitory Control	.21	.20	.13	.08	.27	97.7	13.5
Initiation	.25	.31	.14	.21	.25	91.2	15.1
Organization	.15	.17	.06	.14	.17	92.2	13.6
Planning	.46	.54	.31	.38	.39	93.6	11.1
Self-Monitoring	.39	.45	.31	.33	.27	92.0	11.3
Working Memory	.38	.43	.31	.36	.23	92.5	13.6
WISC-IV M	95.5	96.8	101.5	92.6	90.7	92.6	
WISC-IV SD	18.1	14.7	17.5	17.5	19.4	17.5	

Note: All correlations were corrected for range instability.

16%!!!

EF Behaviors and Neuropsychological Abilities

	CAS					CEFI	
	FS	Plan	Sim	Att	Suc	Mn	SD
CEFI							
Full Scale	.45	.49	.43	.37	.32	91.4	13.2
Attention	.40	.42	.39	.30	.35	90.3	12.8
Emotion Regulation	.26	.22	.23	.24	.13	96.9	14.7
Flexibility	.52	.54	.51	.40	.42	92.2	13.0
Inhibitory Control	.27	.29	.22	.18	.21	96.0	13.9
Initiation	.40	.37	.31	.30	.20	89.0	16.3
Organization	.29	.36	.21	.20	.23	90.5	14.3
Planning	.47	.54	.46	.37	.38	92.5	12.4
Self-Monitoring	.48	.50	.49	.43	.35	91.2	12.4
Working Memory	.48	.46	.45	.38	.30	91.0	14.0
CAS Mn	95.8	92.4	101.6	96.5	98.0		
CAS SD	17.1	14.5	17.0	15.1	14.6		

Note: All correlations were corrected for range instability.

20%!!

EF Behaviors and Achievement

	WJ-III Achievement Tests				
CEFI Scales	Total	Broad Reading	Broad Math	Broad Written Language	Median
Full Scale	.51	.48	.49	.47	.49
Attention	.59	.52	.46	.55	.54
Emotion Regulation	.18	.27	.15	.17	.18
Flexibility	.61	.50	.55	.54	.55
Inhibitory Control	.23	.32	.15	.26	.25
Initiation	.32	.26	.38	.28	.30
Organization	.32	.31	.33	.33	.33
Planning	.58	.54	.57	.50	.56
Self-Monitoring	.53	.51	.51	.49	.51
Working Memory	.57	.48	.60	.47	.53
	p < .05	p < .01			

25% !!

We are social beings.

209

What Benefits Do We Derive From Socialization?

- Support
- Survival
- Affiliation
- Pleasure
- Procreation
- Knowledge
- Friendship

The social development of autistic children is qualitatively different from other children.

In normal children perceptual, affective and neuroregulatory mechanisms predispose young infants to engage in social interaction from very early on in their lives.

Socialization Begins Early
Reina and Her Mother

213

214

Adrian, my seatmate on a recent flight.

Adrian

Adrian

218

219

Kanner's Description (1943)

- first physician in the world to be identified as a child psychiatrist
- founder of the first child psychiatry department at Johns Hopkins University Hospital
- Wrote *Child Psychiatry* (1935), the first English language textbook to focus on the psychiatric problems of children.

Leo Kanner who introduced the label *early infantile autism* in 1943 in his paper : Kanner, L. (1943). Autistic disturbances of affective contact. Nervous Child, 2, 217-250.

220

Kanner's Description (1943)

- His seminal 1943 paper, "Autistic Disturbances of Affective Contact", together with the work of Hans Asperger, forms the basis of the modern study of autism.
- Leo Kanner was the Editor for *Journal of Autism and Developmental Disorders*, then called *Journal of Autism and Childhood Schizophrenia*

Leo Kanner who introduced the label *early infantile autism* in 1943 in his paper : Kanner, L. (1943). Autistic disturbances of affective contact. Nervous Child, 2, 217-250.

221

Kanner's Description (1943)

- Inability to relate to others
- Disinterest in parents and people
- Language difficulties
- Fascination with inanimate objects
- Resistance to change in routine
- Purposeless repetitive movements
  - A wide range of cognitive skills
  - Where they possess an innate inability for emotional contact

Leo Kanner who introduced the label *early infantile autism* in 1943 in his paper : Kanner, L. (1943). Autistic disturbances of affective contact. Nervous Child, 2, 217-250.

222

Core DSM and ICD Core ASD Symptoms in All Ages

- Impaired social relations.
- Impaired communication skills.
- Impaired behavior.

Research Demonstrated Core Factors of Challenges In ASD

- Social/Communication Deficits
- Atypical Behaviors
- Poor Self-regulation

Symptoms Present Before 24 Months

Children with ASD Struggle to:

- Orient to name
- Attend to human voice
- Look at face and eyes of others
- Imitate
- Show objects
- Point
- Demonstrate interest in other children

Symptoms Present Before 36 Months

Children with ASD:

- Use of other's body to communicate or as a tool
- Stereotyped hand/finger/body mannerisms
- Ritualistic behavior
- Failure to demonstrate pretend play
- Failure to demonstrate joint attention

Autism is now referred to as a spectrum disorder in which individuals can present problems ranging from total impairment to near reasonable functioning.

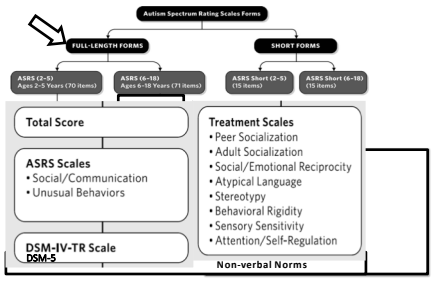
In a Spectrum Disorder genetic and phenotypic factors predispose certain individuals to express certain Central Nervous System vulnerabilities leading to poorly adapted variations in development and behavior.

In a Spectrum Disorder all symptoms are considered relevant to the extent they present in each disorder. Thus a symptom is not exclusive to a disorder.

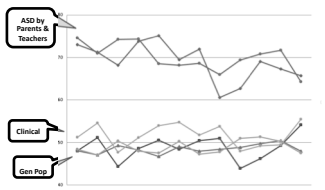
The form that a Spectrum Disorder assumes is determined by its composite symptoms. These symptoms often have complex relationships.

Autism Spectrum Rating Scales

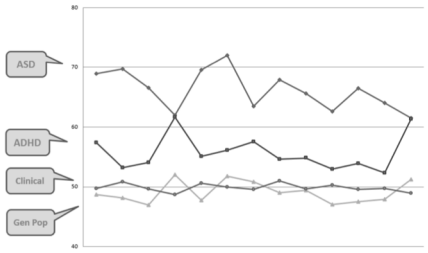
Multi-informant measure designed to identify symptoms, behaviors, and associated features of Autism Spectrum Disorder (ASD) in children and adolescents aged 2 to 18 years.



ASRS Validity for ages 2-5 Parents



ASRS Validity: Ages 6-18 Parents



Anxiety and Depression

Childhood Depression

- Increasing each successive generation
- Exacerbated by a variety of familial and environmental factors
- Appears time limited but in reality isn't
- No critical diagnostic test
- Highly prevalent in the most vulnerable youth
- Strong familial transmission

Anxiety and Depression: Two Sides of the Same Coin

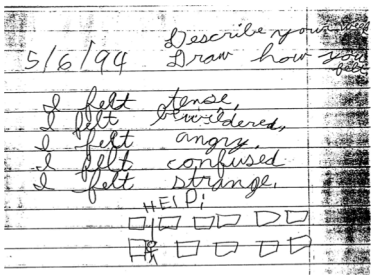
- Similar parts of the brain are implemented.
- Similar neurotransmitter systems.
- Similar medicines used to treat both.
- Similar types of counseling used to treat both.

Are Depression and Anxiety Traits or States?

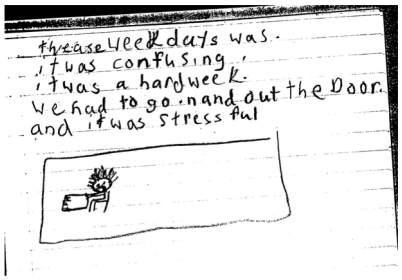
Is This Depression?

- Sadness
- Listlessness
- Lack of energy
- Duration of several months
- Prior to age 7
- These are reported in 10% of children!

Is This Depression?

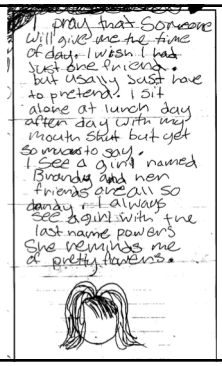


Is This Depression?



Is This Depression?

Is This Depression?



Depression represents a continuum of difficulty from mild variations in affect to severe mood swings and accompanying impairment.

During childhood and adolescence as many as one in five youth will experience a depressive episode

The numbers of depressed youth remain constant but individuals cycle above and below diagnostic symptom thresholds.

Major depression remits spontaneously in 50-80% within one year.

Seventy to ninety percent will experience a second major depressive episode within 5 years.

It is estimated that one out of every five people will struggle with depression on a reoccurring basis.

Depression

- May be represented as an affect or an external representation of the subjective experience of emotion.
- May be a mood subjective internal emotion.
- May be a syndrome consisting of a cluster of incapacitating symptoms and behaviors.

Characteristics of Childhood Depression

- Sadness
- Boredom
- Low self worth
- Guilty feelings
- Social isolation

Characteristics of Childhood Depression

- Impaired school work
- Chronic fatigue
- Low energy level
- Sleep problems
- Appetite problems
- Suicidal thoughts or actions

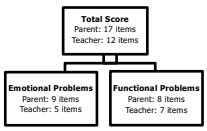
Most Predictive Symptoms of Youth Depression

- Feeling unloved
- Inability to derive pleasure
- Excessive guilt
- Depressed mood
- Negative view of self, world and future (the cognitive triad)

Children's Depression Inventory 2™ (CDI 2)

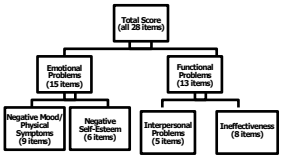
Comprehensive multi-rater assessment of depressive symptoms in children and adolescents from ages 7 to 17, which offers the flexibility of application in either clinical or educational settings.

Scale Structure: Parent and Teacher

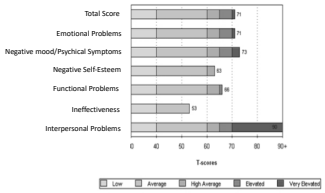


4-point Likert-type rating: 0="Not at All" ; 3="Much or Most of the Time"

Scale Structure: Self-Report (Full Length)



CDI 2 Profile



Types of Anxiety in Children

- **Separation anxiety:** Very anxious and upset when parted from parents and caregivers; refusal to attend camp, sleepovers, or play dates; worry that bad things will happen to self or loved ones while separated.
- **Social anxiety:** Strong fear of social situations; very anxious and self-conscious around others; worry about being judged or humiliated.
- **Specific phobia:** Severe, irrational fear set off by a situation or thing, such as thunderstorms, worry about vomiting, or insects.

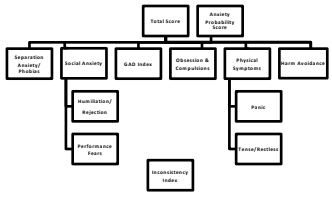
Why Are Some Children More Vulnerable to Anxiety?

- Biological factors, such as genes and brain wiring
- Psychological factors, such as temperament and coping strategies
- Environmental factors, such as anxious parenting or troubling early childhood experiences and environment.

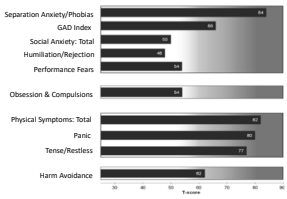
Multidimensional Anxiety Scale for Children 2nd Edition (MASC 2)

- Comprehensive multi-rater assessment of anxiety dimensions in children and adolescents aged 8 to 19 years.
- Distinguishes between important anxiety symptoms and dimensions that broadband measures do not capture.

MASC 2 Scales



MASC 2 Scales



Organizing the Data

- A day in the life
- Ability/Knowledge/Skill
- Take a chronological perspective.
- Risk and Protective factors
- Determining eligibility
- Suggesting possible diagnoses
- Recommending needs
- Considering continuum of services

ADOPT A LEARNING TO RIDE A BICYCLE MINDSET!

Todd: A Resilience Story

Josh

- First grade
- Supportive home and school
- Good self-esteem
- Good behavior
- Weak processing blocks
- Strong thinking blocks

LANGUAGE

MOTOR

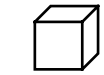
VISUAL

Matthew

- Fifth grade
- Attention and impulse problems
- Supportive home and school
- Good emotional development
- Adequate processing blocks
- Strong thinking blocks

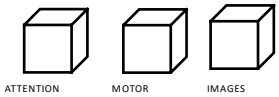
ATTENTION & IMPULSE CONTROL

Ann



- Eighth grade
- Strong foundational blocks
- Strong processing blocks
- Problems thinking with language
- Adequate thinking with images and strategies

Stella



- Strong emotional, behavioral and environmental blocks
- Weak attention block
- Adequate language processing block
- Weak motor and visual blocks
- Weak thinking with images block
- Adequate strategies and thinking with language blocks

Key Goals of Intervention

- Instill hope and empowerment
- Educate
- Reframe
- Build self-esteem and self-acceptance

Key Goals of Intervention

- Form a partnership
- Reduce discouragement through setting realistic goals
- Address and rewrite negative scripts
- Focus on strengths
- Build resilience

EF Interventions

Can strategic, instructional interventions provide remedial and compensatory support for children with EF deficits?

272

Cognitive Strategy = EF Instruction

- A strategy is a procedure that the learner uses to perform academic tasks
- Using a strategy means the child thinks about 'how you do what you do'
- Successful learners use many strategies.
- Some of these strategies include visualization, verbalization, making associations, chunking, questioning, scanning, using mnemonics, sounding out words, and self-checking and monitoring.

273

My Granddaughter Hones Her EF Skills

274

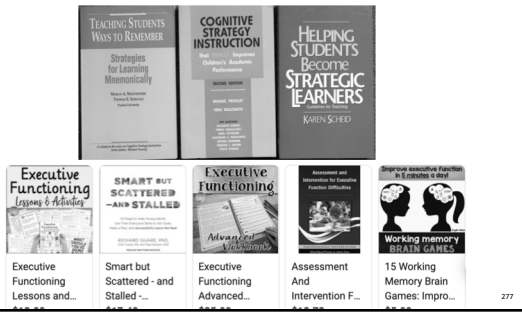
My Granddaughter Hones Her EF Skills

275

Practice Pays Off!

276

Cognitive Instructional Methods



Executive Functioning Lessons and...

Smart but Scattered - and Stalled -...

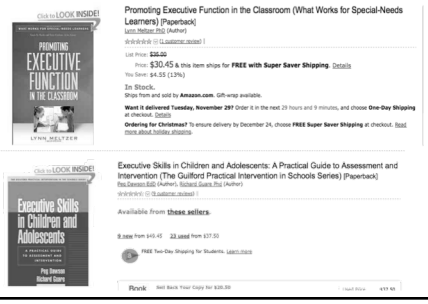
Executive Functioning Advanced...

Assessment And Intervention F...

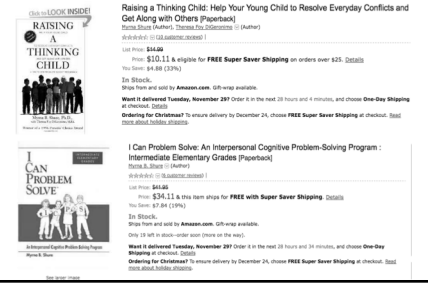
15 Working Memory Brain Games: Impro...

277

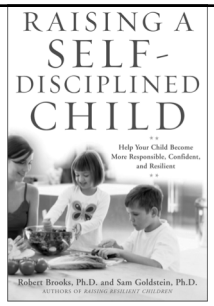
EF Instruction

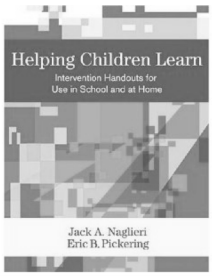


278

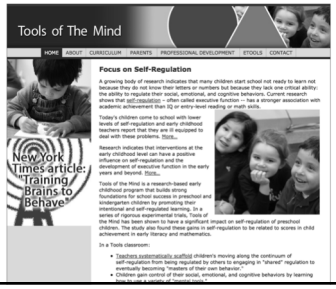


279





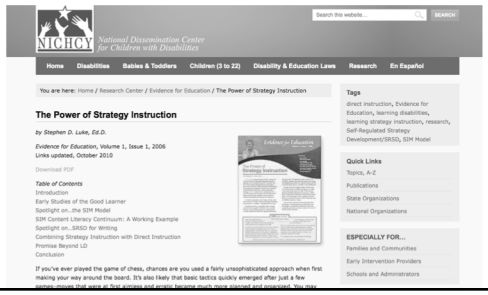
Tools of the Mind



281

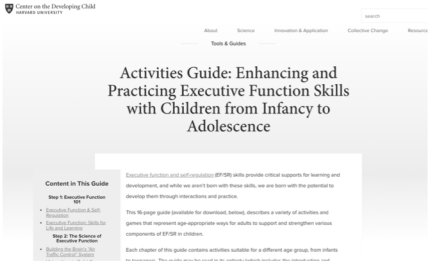
http://www.hoagiesgifted.org/eric/e638.html

http://nichcy.org/research/ee/learning-strategies



https://childmind.org/article/helping-kids-who-struggle-with-executive-functions/

https://developingchild.harvard.edu/resources/activities-guide-enhancing-and-practicing-executive-function-skills-with-children-from-infancy-to-adolescence/



https://www.understood.org/en/school-learning/partnering-with-childs-school/instructional-strategies/at-a-glance-classroom-accommodations-for-executive-functioning-issues

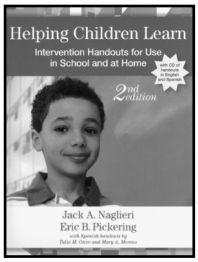
http://www.ncld.org/at-school/especially-for-teachers/effective-teaching-practices/strategic-instruction-model-sim-how-to-teach-how-to-learn

287

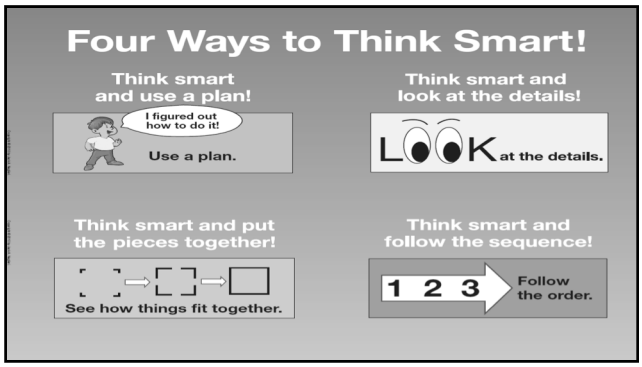
288

Teaching Children to use EF

- Helping Children Learn Intervention Handouts for Use in School and at Home, *Second Edition*
  By Jack A. Naglieri, Ph.D., & Eric B. Pickering, Ph.D.,
- Spanish handouts by Tulio Otero, Ph.D., & Mary Moreno, Ph.D.



289



Steps to Strategic Instruction:

- **Describe the strategy**. Students obtain an understanding of the strategy and its purpose-why it is important, when it can be used, and how to use it.
- **Model its use.** The teacher models the strategy, explaining to the students how to perform it.
- **Provide ample assisted practice time.** The teacher monitors, provides cues, and gives feedback. Practice results in automaticity so the student doesn't have to "think" about using the strategy.
- **Promote student self-monitoring and evaluation of personal strategy use.** Students will likely use the strategy if they see how it works for them; it will become part of their learning schema.
- **Encourage continued use and generalization of the strategy.** Students are encouraged to try the strategy in other learning situations.

291

Benefits of Strategy Instruction

- Students trust their minds
- Students know there is more than one right way to do things
- They acknowledge their mistakes and try to rectify them
- They evaluate their products and behavior
- Memories are enhanced
- Learning increases
- Self-esteem increases
- Students feel a sense of power
- Students become more responsible
- Work completion and accuracy improve
- Students develop and use a personal study process
- They know how to "try"
- On-task time increases: students are more "engaged"

292

Five keys to successful management of ADHD

- Make tasks interesting
- Make payoffs valuable
- Adjust expectations for change
- Allow more trials to mastery
- Allow more time for change

The consequence is worse than the symptom:

NEGATIVE
REINFORCEMENT

Why do some with ADHD thrive while others barely survive?

Symptom relief is not synonymous with changing long term outcome.

• .

Psychosocial Interventions for ADHD

- Environmental manipulation of the physical plant
- Environmental manipulation of consequences
- Modification of cognitive function

They are/can be effective symptom relievers but they may not change long term outcome.

Is Counseling for ADHD Non-Traditional?

- Active role of therapist
- Cognitive behavioral model
- Similar to working with individual's with neurological conditions. Therapist takes an active even directive role.
- Involve support system
- Offer guidance and advice.

"Make the work interesting and the discipline will take care of itself"

E. B. White

What teachers want from children with ADHD

- TO THINK
- TO START
- TO STOP in concert with all students

Keys for the Education of Children With ADHD

- MAKE TASKS INTERESTING
- MAKE PAYOFFS VALUABLE
- ALLOW MORE TRIALS OVER LONGER TIME PERIODS
- FOCUS ON ASSETS
- ADOPT A LONG TERM PERSPECTIVE

Cognitive Strategies For the Classroom

- Monitoring
- Evaluation
- Cuing
- Problem solving
- Communication
- Attribution

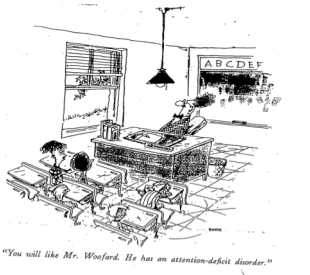
Management Strategies For the Classroom

- Adjust expectations
- Everyone succeeds every day
- Prepare for changes
- Seating in rows
- Incompetence versus non-compliance
- Mix high and low interest tasks
- Simple, single directions

What Qualities Define the Best School for Students With ADHD?

Structure, Stimulation, Repetition or Novelty?

The Ideal Teacher for ADHD?



"You will like Mr. Woofard. He has an attention-deficit disorder."

"Make the work interesting and the discipline will take care of itself"

E. B. White

What teachers want from children with ADHD

- TO THINK
- TO START
- TO STOP in concert with all students

Keys for the Education of Children With ADHD

- MAKE TASKS INTERESTING
- MAKE PAYOFFS VALUABLE
- ALLOW MORE TRIALS OVER LONGER TIME PERIODS
- FOCUS ON ASSETS
- ADOPT A LONG TERM PERSPECTIVE

Management Strategies For the Classroom

- Adjust expectations
- Everyone succeeds every day
- Prepare for changes
- Seating in rows
- Incompetence versus non-compliance
- Mix high and low interest tasks
- Simple, single directions

The Art of Educational Commands

	START	STOP
ALPHA	Place your feet on the floor. (Best)	Take your feet off the desk.
BETA	Do it!	Don't do it! (Least effective)

Management Strategies For the Classroom

- Transitions
- Consequences
- Consistent routine
- Allow non-disruptive movement
- Teacher contact
- Ignore minor disruptions
- An efficient system for homework

Management Strategies For the Classroom

- Manage negative reinforcement
- Use response cost
- Use differential attention
- State and review rules
- Predictable schedule
- Maintain home-school communication
- Don't be a martyr

The Power of Education?

Focus on Well Being!

- COMPETENCE in academic, social and vocational areas
- CONFIDENCE or a positive identity
- CONNECTIONS or healthy relations
- CHARACTER or positive values, integrity, and values
- CARING and compassion

(Lerner et al, 2000)

"The secret of education lies in respecting the student"

Ralph Waldo Emerson

Five Strategies to Reduce Teen and Young Adult Risk Taking Behavior

- **Support positive behaviors of non-risk-taking individuals.** Declines in risk-taking mean that the share of students taking no risks has increased. These youth need support and expanded opportunities to continue making responsible and healthy decisions as they mature.
- **Target efforts to reduce specific risk behaviors toward multiple-risk students.** Recent public health and policy efforts to reduce the prevalence of key risk behaviors, such as smoking or violence, cannot address these behaviors in isolation from other risk-taking.
- **Encourage positive behaviors of risk-taking youth, such as time spent on extracurricular or faith-based activities.** These behaviors connect students to adults and social institutions and offer opportunities to prevent risk-taking among some students or reduce risk-taking among others.
- **Expand efforts to reach multiple-risk youth in nontraditional settings.** Teen participation in settings such as the workplace, the criminal justice system, and faith-based institutions offers innovative opportunities for health services and education programs and the development of personal relationships with positive adult role models that can reduce risk-taking.
- **Take new steps to reduce risk-taking among Hispanic students.** Further research is needed to better understand both risk-taking and development of this growing group of youth. Programs that are responsive and sensitive to the current ethnic and social diversity of Hispanic youth need to be developed and implemented.

School Wide Programs

How *BARR* Works

Eight interconnected strategies help schools accomplish their goals by creating intentional connections between staff and students to address barriers to success.

Focus on the whole student
Educators work to build students' strengths and proactively address nonacademic reasons why students fall behind in school as well as what they need to thrive. Every discussion with or about the student includes a 360-degreee perspective.

Provide professional development for staff
Training for teachers, counselors, and administrators starts before implementation and continues throughout the school year. Professional development focuses on enhancing achievement through student-teacher relationships.

Use I-Time Classroom Curriculum to foster learning
I-Time is an interactive weekly lesson taught by core teachers where students work together to strengthen their social and emotional skills, including communication and goal setting. They also work on discussing sensitive issues such as grief, substance use, and bullying.

Create cohorts of students
Groups of students take core courses (typically math, English, and science or social studies) together as a cohort. Each cohort is assigned to a team of teachers to cultivate connections and enhance learning relationships.

Hold regular teacher team meetings
Teachers in a cohort meet weekly for a 360-degree discussion about each student in the cohort. Teacher teams identify student strengths and any interventions a student might need.

Conduct Risk Review meetings
A Risk Review team meets regularly to discuss strategies for students who need more support than the cohort teacher teams can provide. This team identifies and coordinates additional internal or external resources that can best help students thrive.

Engage families in student learning
With *BARR*, families become active partners in helping students be their best. Teachers call and meet with parents and other family members regularly, and parents are invited to join an advisory council.

Engage administration
Administrators receive training, ongoing coaching, and tools to help them best integrate *BARR* into their school culture and reach their school-specific goals.

Five Strategies To Foster a Resilient Mindset

- Teach empathy by practicing empathy.
- Teach responsibility by encouraging contributions.
- Teach decision making and problem solving skills that foster self-discipline.
- Offer encouragement and positive feedback.
- Help children deal with mistakes.

Teach Empathy By Practicing Empathy

- Are we saying or acting in a way that our children will be responsive to hearing us?
- Would we want anyone to speak to us the way we speak to our children?
- How would our children describe us at various times?
- How would we want our children to describe us?

Teach Empathy By Practicing Empathy

- Listen
- Validate
- Avoid preaching and lecturing
- Avoid judgments and accusations
- Put yourself in their shoes
- Change your negative scripts

Teach Responsibility By Encouraging Contributions

- Provide ample opportunity
- Focus on existing success
- Build islands of competence
- Allow the opportunity to witness concrete examples of success

Eric's Experiment Part I

Eric's Experiment Part II

Teach Decision Making and Problem Solving Skills That Reinforce Self-Discipline

- What's my problem?
- What solutions are available?
- Which solution is the best?
- How can I implement each step of the solution?
- How did I do?

Offer Encouragement and Positive Feedback

- Become a charismatic adult
- Provide realistic appreciation
- Focus on building rather than tearing down
- Be available

Help Children Deal With Mistakes

- The fear of mistakes is a strong roadblock to developing a resilient mindset
- Mistakes are opportunities to learn
- Model the benefits of mistakes

The Mindset of a Resilient Child

- Optimistic and hopeful.
- Feel special and appreciated in the eyes of others.
- Set realistic goals and expectations.
- View mistakes, hardships and obstacles as challenges.
- Solve problems and make decisions.
- Internal locus of control.
- Believe you can and set out to solve problems.
- Possess empathy.

In Their Own Words

Adopt a Learning to Swim Mindset!

Conclusions

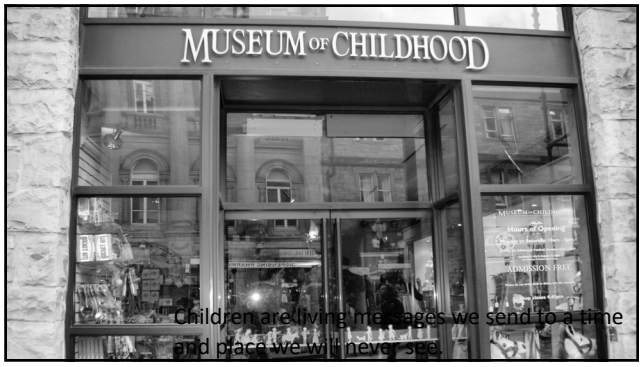
- Liabilities define where you may be but assets tell me where you might go in life.
- An early history of developing competence, along with supportive, consistent care, serves as a powerful and enduring buffer throughout childhood and increases probability of resilience.
- We have come to appreciate that biology is not destiny but does impact probability.
- The brain and the mind have a complicated relationship.

Conclusions

- Children exhibit two kinds of behavioral and emotional challenges.
- A diagnosis is a good first step but not a good place to end.
- Ability, knowledge and skill are not the same.
- There are more similarities than differences in many diagnoses.
- Children today are more vulnerable than ever before.
- There is much we can do to stress inoculate children to live a resilient life.

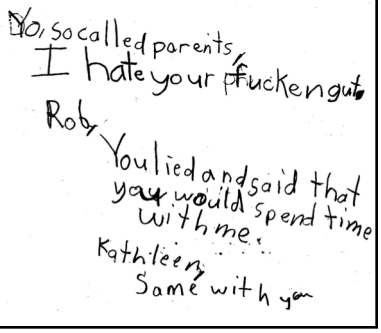
May our philosophies keep pace with our technologies. May our compassion keep pace with our powers. And may love, not fear, be the engine of change.

Dan Brown
Origin

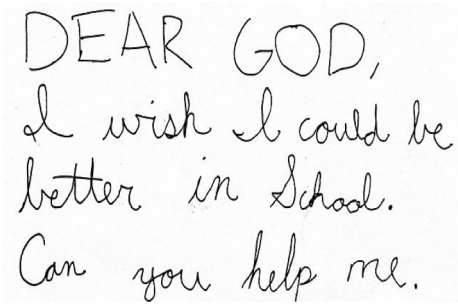


"Children are living messages we send to a time and place we will never see."

It must never come to this!

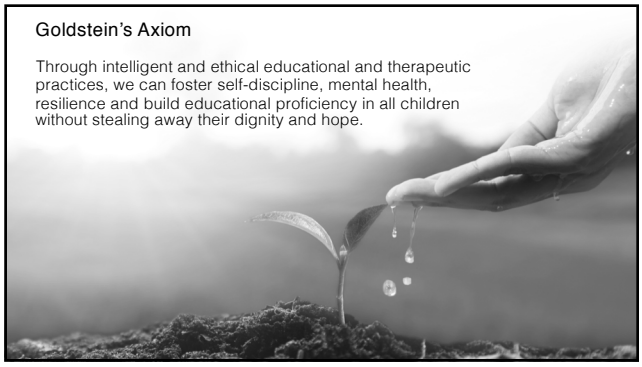


Or this!



Goldstein's Axiom

Through intelligent and ethical educational and therapeutic practices, we can foster self-discipline, mental health, resilience and build educational proficiency in all children without stealing away their dignity and hope.



Thank you!

TENACITY

www.samgoldstein.com
info@samgoldstein.com
@drsamgoldstein
@doctorsamgoldstein

TEDx

Sam Goldstein, Ph.D.
sam@samgoldstein.com

The Power Of Resilience
https://www.youtube.com/watch?v=isfw8JJ-eWM&feature=youtube_gdata