

Foundations of Child Development & The Brain in Early Childhood


WITH DR. PEG OLIVEIRA
Executive Director, Gesell Institute

SATURDAY, OCTOBER 12, 2019
FIRST PRESBYTERIAN CHURCH

- * **LEARN** about each stage of development.
- * **DISCOVER** how stages of growth impact behavior.
- * **EXPLORE** the latest and best brain development research.

Childcare
RESOURCES

Funding Provided By
Indian River County
Children's Services
Advisory Committee





Peg Oliveira, PhD
Executive Director

Dr. Peg Oliveira is a child development expert and an activist. Since receiving her doctorate in developmental psychology from Brandeis University, Dr. Oliveira has advocated for fair pay for early childhood educators, child care assistance for working parents and equitable access to high quality education.

Peg is founding director of 108 Monkeys, a yoga service organization in New Haven, CT. Peg serves as a Consulting Editor for the National Association for the Education of Young Children.

What have you enjoyed most about working at Gesell?

“Growing! I have learned so much from my colleagues here at Gesell. In my time here I have learned a great deal about how to connect with kids, how to imagine their intentions, understand their motivations, and empathize with their impeccable choices.”

How have you seen Gesell’s theory of child development at work in your own life?

“When my daughter Willow was finishing Kindergarten we were told that, unlike her peers, she was not falling in love with reading. It was suggested that some encouragement might be useful over the summer break. So, as a family we went swimming, crab catching, sea shell gathering, mountain climbing and camping. At some point during these excursions, I found her one rainy afternoon holed up in a blanket fort. She was reading *The Trumpet of the Swan*, a book I had read to her numerous times before. Dr. Arnold Gesell encouraged us to see each child as a unique being, and to allow them to find their own path & pace through the rituals of child development. Keeping this in mind allowed me to get out of the way, to put my own anxieties on the shelf and allow my daughter the space to find the deep connection she now has with story.”

1



GESELL INSTITUTE
 OF CHILD DEVELOPMENT


Yale Child Study Center
 FOUNDED 1912



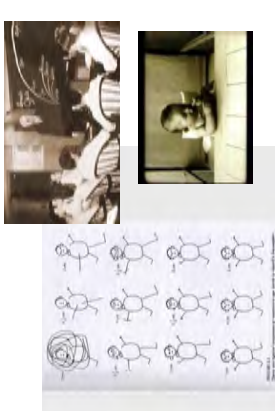
**Foundations of
 Child
 Development**
 Peg Oliveira, PhD
 Executive Director

2



"If we use effective tools, the child reveals himself to all who will stop and listen to what he says, and who, with seeing eyes, will watch what he does."
 Arnold Gesell

3



Gesell's Cycles and Stages of Development

4



5

Our Mission



Promote the principles of child development, inspired by

Innovation & Objective Wonder

6

Know Yourself

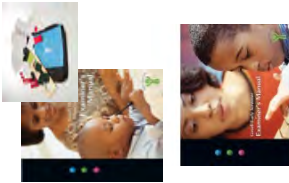
Know Kids

Know Your Kids




7

Gesell Developmental Observation - Revised



Gesell Early Screener

8



How Children Learn and Grow

Theories of Child Development

Gesell's Maturation Theory

- All children develop through sequential and predictable stages of development.
- Children develop at their own unique, individual rate.
- Children's developmental age (stage) can differ from their chronological age.
- Development is impacted by internal (heredity) and external (environment) influences.

Theories of Child Development

Think: Jean Piaget

Do: Arnold Gesell

Culture: Lev Vygotsky

Conflict: Erik Erikson

Piaget: Constructivist - Cognitive Theory of Development

Schemata

- A mental representation of a perception, idea, and/or action; considered the basic building blocks of thinking

Equilibration


- A balance between child's schemata and his/her environment involves both accommodation and assimilation

Assimilation

- Process of changing or perceiving new objects, ideas, or events to fit into existing schemas

Accommodation

- The process of changing existing schemas to account for new experiences, ideas, or events



Piaget: Constructivist - Cognitive Theory of Development

Sensori-motor Stage (Birth – 2 yrs.)

- Learn through senses and physical interactions with environment

Pre-operational Stage (Ages 2 – 7 yrs.)

- Learn through concrete physical situations, not able to think abstractly

Concrete Operations (Ages 7 - 11 yrs.)


- Learn through physical experiences, begins to use abstract problem solving

Formal Operations (Ages 11+ yrs.)

- By this point, the child's cognitive structures are like those of an adult and include conceptual reasoning


Erikson: Psycho-social Theory

- Trust vs. Mistrust (0-1) — Hope
- Autonomy vs. Doubt (2-3) — Willpower
- Initiative vs. Guilt (3-5) — Purpose
- Industry vs. Inferiority (6-12) — Competence



Vygotsky: Socio/Cultural Cognitive Theory of Learning

- Builds on Piaget's constructivist theory
- The Zone of Proximal Development (ZPD) occurs when a child begins to assimilate novel information which creates new schemata
- To reach the ZPD and beyond, children need the help of adults (or others) to support or "scaffold" them as they are learning new things
- Scaffolding happens with words, language and forms of discourse which serve as tools for facilitating and transforming mental activity



Vygotsky: Socio/Cultural Cognitive Theory of Learning

ZPD

Lev Vygotsky explained the Zone of Proximal Development is "the distance between the actual developmental level as determined by independent problem solving and that level as determined through problem solving under adult guidance, or in collaboration with more capable peers."

Theories of Child Development (Piaget & Vygotsky)

Concrete learning is something that is not connected.

Theories of Child Development

- Physical/Motor Development
- Language Development
- Cognitive/Learning Development
- Social Emotional Development

Consider the "whole" child

How Children Learn and Grow

Learning happens through:

- Shared physical interactions with the environment - people and things
- Exploration and play
- All the senses

New knowledge is connected to old knowledge.
Like "stair-steps" we construct new knowledge on existing knowledge.

You *can* teach an old dog new tricks.

Developmental Progression

18 Months- 5 1/2 Years



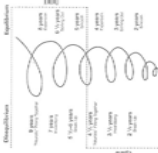
Why is Knowing Developmental Theories and Stages Important?

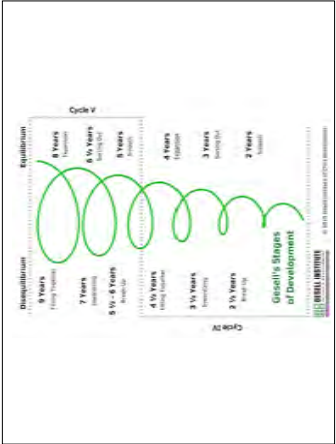
**To Know
Why We Do What We Do!**

Chronological vs. Developmental Age




vs.





Gesell's Cycles and Stages of Development
<p>Smooth, Calm Behavior Practicing Skills Already Mastered Plateau in Development At Peace with Self and World More Confident A period of Stability and Consolidated Behavior Easier to Live With</p> <h1 style="font-size: 4em; margin: 0;">E</h1>

Gesell's Cycles and Stages of Development
<p>Unsettled, Uneven Learning New Skills Quick Growth Uneasy with Self and World More Anxious, Stressed Less Confident Struggling & Breaking Down of Behavior More Difficult to Manage</p> <h1 style="font-size: 4em; margin: 0;">D</h1>

Gesell Maturational Theory


<p>Infant Development 1 - 3 Months</p>	<p>Begins transformation from a totally dependent newborn to an active and responsive infant.</p> 
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<p>Infant Development 1 - 3 Months</p>
<p>Physical/Motor Behavior</p> <ul style="list-style-type: none"> • Infant reflexes are lost (i.e., grasp, stepping, startle, mouthing) • Supports head and upper body when on tummy • Stretches out legs and kicks when on tummy or back • Reaches for objects with eyes coordinated • Turns head to follow objects • Uses hands to touch, grabs and shakes hand toys, swipes at dangling objects

<p>Infant Development 1 - 3 Months</p>
<p>Language Behavior</p> <ul style="list-style-type: none"> • Begin to coo (vowel sounds like oooo, aaaa) <p>Social Emotional Behavior</p> <ul style="list-style-type: none"> • Turn toward familiar voices • Smiles at familiar faces • Enjoys playing with others


<p>Infant Development 1 - 3 Months</p>
<p>Cognitive Behavior</p> <ul style="list-style-type: none"> • Dramatic vision changes causes them to become more aware and interested in their surroundings <ul style="list-style-type: none"> ◦ Human faces ◦ Bright, primary colored objects ◦ Faces with eyes closed with eyes, turns head to direction of stimuli (visual, sound) ◦ Recognize familiar things and people • Initiates some movements and facial expressions • Become excited when feeding stimuli are presented, anticipating feeding

<p>Infant Development 4-7 Months</p>
<p>Coordinate new perceptive abilities (vision, touch, hearing) and motor skills (grasping, rolling over, sitting up) and have more control over what they will and will not</p> 

Infant Development 4-7 Months
<p>Physical/Motor Behavior</p> <ul style="list-style-type: none"> • Rolls over both ways (stomach to back and reverse) • Sits up with and then without support of hands • Reaches for object with one hand using raking grasp • Picks up objects with thumb and index finger • Supports whole weight when held up on legs • Explores objects with hands and mouth • Begins to push up to a crawling position; rocks back and forth on knees • Sits without support

Infant Development 4-7 Months
<p>Language Behavior</p> <ul style="list-style-type: none"> • Laughs • Babbles consonants (ba-ba-ba-ba) <p>Social Emotional Behavior</p> <ul style="list-style-type: none"> • Distinguishes emotions by tone of voice • Smiles to attract attention • Expresses emotions (happy, sad, anger) • Responds to own name

Infant Development 4-7 Months
<p>Cognitive Behavior</p> <ul style="list-style-type: none"> • Finds partially hidden objects • Moves in the direction they want to go (leans) • Looks at a toy after dropping, understanding where it fell

Infant Development 8-12 Months
<p>Getting their first experience with independence. Increasingly more mobile, and some are in constant motion.</p> 

<p>Infant Development 8-12 Months</p>
<p>Physical/Motor Behavior</p> <ul style="list-style-type: none"> • In and out of sitting position on their own • Gets on hands-and knees and crawls; often backwards before forwards • Shifts from standing position; cruises holding onto furniture; stands without support and eventually may take a few steps and then begins to walk. • Uses pincer grasp (thumb and first finger) • Places objects in and out of container • Some basic functional skills like hold a spoon or turn pages in a book

<p>Infant Development 8-12 Months</p>
<p>Language Behavior</p> <ul style="list-style-type: none"> • Says "mama/dada" specifically referring to a person • Exclamations such as "uh-oh!" • Tries to imitate words and may say first word • Uses simple gestures, such as shaking head for "no" or waving for "bye-bye" • Plays interactive gesture games, such as peek-a-boo and pat-a-cake

<p>Infant Development 9-12 Months</p>
<p>Social Emotional Behavior</p> <ul style="list-style-type: none"> • Relatively shy around strangers (stranger anxiety) • Cries when significant caretakers leave

<p>Infant Development 8-12 Months</p>
<p>Cognitive Behavior</p> <ul style="list-style-type: none"> • Easily finds hidden objects (object permanence) • Uses objects correctly such as holding phone up to ear or drinking from a cup



Gesell's Cycles and Stages of Development

Age	Stage
2	Smooth
2 1/2	Breaking Up
3	Sorting Out
3 1/2	Inwardizing
4	Expanding
4 1/2	Neurotic
5	Smooth
5 1/2	Breaking Up
6	Sorting Out

Expansion- 18 Months

- Developmental 18 Months (a lot like 4, 8, 14)
- Is markedly more outgoing, more confident, adventurous, noisy, and vigorous
- Learns through movement and is in constant motion
- Movement and change key to direction
- Expanding their circle or world
- Can be defiant

E

Expansion- 18 Months

Physical/Motor Behavior

- Generally walking well
- Body does not bend
- Minimal cuddling
- Walking up stairs with support – creeps down
- Throws ball without falling

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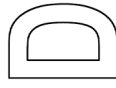
<p>Fitting Together- 21 Months</p>
<p>Physical/Motor Behavior</p> <ul style="list-style-type: none"> • Begins to lose baby fat • Pushes & pulls toys • Can jump • Runs – may still have difficulty stopping – can move around obstacles • Helps feed self • Turns pages in book



<p>Fitting Together- 21 Months</p>
<p>Language Behavior</p> <ul style="list-style-type: none"> • Names everyday objects • Requests certain objects • Can follow simple directions • 25-50% intelligibility • Serve & return conversations



<p>Fitting Together- 21 Months</p>
<p>Social Emotional Behavior</p> <ul style="list-style-type: none"> • Parallel play • Imitate adults in play • Curious - need to be kept safe • Tantrums – frustration • Begins to assert independence



<p>Fitting Together- 21 Months</p>
<p>Cognitive/Learning Behavior</p> <ul style="list-style-type: none"> • Fills containers and dumps • Stacks 4-6 objects each day • Understands functional relationships (spoon/bowl) • Object hiding – can search in more than one location • Knows 3-5 body parts



Smooth- 2 Years



E

Smooth- 2 Years

- Developmental age 2 (a lot like 5, 10)
- At *relative* equilibrium
- Generally exhibits gentle, cooperative and calm behaviors
- Simplicity is best
- Tend toward easy going, secure behaviors

E

Smooth- 2 Years

Physical/Motor Behavior

- Walks, runs and climbs with new skill
- No longer toddles, walks more steadily but lacks coordination
- Experiences the world through touching, handling and holding
- Uses both hands working together

E

Smooth- 2 Years


Language Behavior

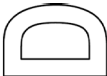
- Uses many new words
- Enjoys simple rhymes and songs
- Calls him/herself by name
- Talks more to themselves than others (language acquisition)
- Begins to string some words together

E

<p>Smooth- 2 Years</p>
<p>Social Emotional Behavior</p> <ul style="list-style-type: none"> • Gentle temperament • Prefers parallel play – cognitive skills are not developed for complex interactions • Imitates real life, simple experiences like talking on the phone, hammering, cooking, etc • Begins to verbalize bathroom needs, but not yet able to stay dry consistently <p style="text-align: right; font-size: 2em;">E</p>

<p>Smooth- 2 Years</p>
<p>Cognitive/Learning Behavior</p> <ul style="list-style-type: none"> • Short attention span, easily distracted • Has to explore with hands as well as eyes – sensory • Involves themselves in simple exploration and investigation • Fascinated by sand and water play (sensory) • Learns best within repetition and routine <p style="text-align: right; font-size: 2em;">E</p>

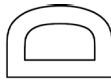
<p>Breaking Up- 2 ½ Years</p>
<div style="display: flex; align-items: center;">  <div style="margin-left: 20px; font-size: 3em;">D</div> </div>

<p>Breaking Up- 2 ½ Years</p>
<div style="display: flex; align-items: center;">  <ul style="list-style-type: none"> • Developmental age 2 ½ (a lot like 5 ½, 11) • At odds with themselves and their environment • Becoming aware of inconsistencies • Trouble making decisions • Relationships become more difficult • Needs constant expectations and rules to ensure security • Behavior can be rigid, inflexible and demanding </div>

Breaking Up- 2 ½ Years

Physical/Motor Behavior

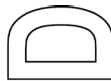
- Begins to walk on tiptoe
- Jumps with both feet
- Can speed up, slow down, dodge obstacles, turn corners, make sudden stops and start up again with ease
- Is more skillful with handling small toys



Breaking Up- 2 ½ Years

Language Behavior

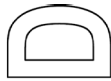
- Uses "no" and "mine"
- Repeats words and phrases
- Uses language as an effort to control others
- Has a rapidly expanding vocabulary
- Understands more than he or she speaks



Breaking Up- 2 ½ Years

Social Emotional Behavior

- Is no longer the gentle, friendly toddler
- Is inflexible; unable to adapt, give in or wait
- Has explosive emotions and frequent tantrums
- Can be extremely bossy and demanding
- Is often in conflict with parents/caregivers



Breaking Up- 2 ½ Years

Cognitive/Learning Behavior

- Enjoys rhythm, repetition and rhyme in stories
- Delights in role playing
- Likes to give orders and make decisions
- Chooses things that can be taken apart and put back together



Sorting Out- 3 Years



E

Sorting Out- 3 Years

- Developmental age 3 (a lot like 6½, 12)
- At *relative* equilibrium
- At balance and focus
- Begins to understand that different situations require different behaviors
- Tend toward easy going, secure and mature behaviors

E

Sorting Out- 3 Years

Physical/Motor Behavior

- Moves nimbly; coordinates total body more smoothly
- Runs with more speed and control
- Is skillful at picking up small objects
- Likes to use crayons and markers
- May have established hand dominance
- Enjoys outdoor play, sliding, and climbing

E

Sorting Out- 3 Years

Language Behavior

- Has greatly increased vocabulary and ability to use language
- Learns to listen and *listens to learn*
- Has give-and-take conversations with adults and other children
- Enjoys new, big, and different words

E

<p>Sorting Out- 3 Years</p>
<p>Social Emotional Behavior</p> <p style="font-size: 2em; font-weight: bold; text-align: center;">E</p> <ul style="list-style-type: none"> • Developing a good sense of self • Likes to make friends, but still has trouble sharing • Understands turn taking but doesn't always follow rules • Is less rigid, inflexible, and domineering • Is now prepared to begin to manage toilet training

<p>Sorting Out- 3 Years</p>
<p>Cognitive/Learning Behavior</p> <p style="font-size: 2em; font-weight: bold; text-align: center;">E</p> <ul style="list-style-type: none"> • Interested in books with simple plots • Favors water play • Imaginatively plays with dolls, blocks, and other toys • Begins to build block structures and mold play-doh in recognizable forms

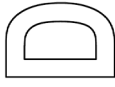
<p>Inwardizing- 3 ½ Years</p>
<div style="display: flex; justify-content: space-around;">   </div> <p style="font-size: 2em; font-weight: bold; text-align: center;">D</p>

<p>Inwardizing- 3 ½ Years</p>
<p style="font-size: 2em; font-weight: bold; text-align: center;">D</p> <ul style="list-style-type: none"> • Developmental age 3½ (a lot like 7, 13) • May seem egocentric and self-centered • A drawing inward of impressions and experiences of external world • Does not like change • Is territorial and controlling • Has difficulty seeing others point of view • May become depressed, insecure and exhibit emotional extremes • Needs great stability and order

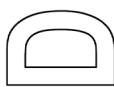
<p>Inwardizing- 3 ½ Years</p>
<p>Physical/Motor Behavior</p> <ul style="list-style-type: none"> • Seems less coordinated; falls frequently • Stumbles and may exhibit hand tremors • Approaches tasks with less assurance • Grasps pencil awkwardly • May shift handedness



<p>Inwardizing- 3 ½ Years</p>
<p>Language Behavior</p> <ul style="list-style-type: none"> • Tries to control others with language • Plays with language, whispering and making up new words • Adores silly rhyming • May or may not respond when spoken to • Argues frequently with other children





<p>Inwardizing- 3 ½ Years</p>
<p>Social Emotional Behavior</p> <ul style="list-style-type: none"> • Ignores; often refuses to obey • Is anxious about change • May have imaginary companions • Cries, whines, and complains • Is sensitive and easily upset • Values friendships





<p>Inwardizing- 3 ½ Years</p>
<p>Cognitive/Learning Behavior</p> <ul style="list-style-type: none"> • Prefers the simplicity of sand play • Repeats actions over and over, finding transitions difficult • Has many different ways of expressing refusal and uses them often • Shows imagination and inventiveness



<p>Expansion- 4 Years</p>

<p>When you're four you can do awesome tricks. You can do a tumble and a cartwheel. Actually I can't do a cartwheel, but my sister can do that. She's 5 years old and likes to play with me. But I haven't met her, and I don't know her name, because she's imaginary. She likes to fly. Her job is to save the day every time the bad guys try to steal the world. She is friends with Water Girl, and Fire Girl, and Wind Girl, and Shark Girl. Shark Girl has the power of sharks. She can save the world every single time. All she has to do is put out her hands and think really hard about sharks." Humans of NY</p> <p style="text-align: center;">WILD AND WONDERFUL</p>

<p>Expansion- 4 Years</p>

<ul style="list-style-type: none"> • Developmental age 4 (a lot like 8, 14) • Is markedly outgoing, confident, adventurous, noisy, and vigorous • Learns through movement and is in constant motion • More aware of the outside world • Wants to know and deal with the whole problem • Can be defiant

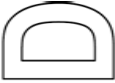
<p>Expansion- 4 Years</p>
<p>Physical/Motor Behavior</p>

<ul style="list-style-type: none"> • Constantly in motion, hopping, jumping, and running/love outdoors • Draws, colors, paints with more detail • May hit, kick when angry • Requires strong limits to be protected by out-bounds tendencies

<p>Expansion- 4 Years</p>
<p>Language Behavior</p>

<ul style="list-style-type: none"> • Loves to talk, whisper, and rhyme • Asks many questions • Is better at talking than listening • Tells tale tales; has trouble discriminating fact from fantasy • Tattles; calls names, boasts, and defies

Expansion- 4 Years
<p>Social Emotional Behavior</p> <p style="font-size: 2em; font-weight: bold; text-align: center;">E</p> <ul style="list-style-type: none"> • Is active, enthusiastic, and unpredictable • Has an expansive nature, always ready for something new • Cooperates with other children, but changes rules often • Enjoys laughing and laughter in others

Expansion- 4 Years
<p>Cognitive/Learning Behavior</p> <p style="font-size: 2em; font-weight: bold; text-align: center;">E</p> <ul style="list-style-type: none"> • Has a vivid imagination that leads to dramatic play • Loves books that include humor and illustrations • Love music and movement • Behaves in brashly confident way • Awareness of time and space emerging

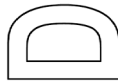
Fitting Together- 4 ½ Years
<div style="display: flex; justify-content: space-around; align-items: center;">  <div style="text-align: center;"> <p style="font-size: 3em; font-weight: bold;">D</p> <p><i>Evaluating and Fearful</i></p> </div>  </div>

Fitting Together- 4 ½ Years
<div style="display: flex; justify-content: space-around; align-items: center;">  <ul style="list-style-type: none"> • Developmental age 4½ (a lot like 9, 15) • Is less outgoing • Knows how things should be, but doesn't know how to achieve • Tends to be competitive, rigid, needing attention. • Worries and has a hard time dealing • Values closure </div>

Fitting Together- 4 ½ Years

Physical/Motor Behavior

- Can now catch successfully, hands to chest
- Uses the whole forearm when drawing
- Has a firm but wobbly pencil stroke
- Is physically active but has calm periods



Fitting Together- 4 ½ Years

Language Behavior

- May begin to differentiate fantasy from reality
- Loves new information
- Is scared by wild stories they loved at four
- Is showing interest in letters and numbers



Fitting Together- 4 ½ Years

Social Emotional Behavior

- Considers friends important
- Is less likely to push limits
- Likes to call attention to own performance
- Has unpredictable temperament
- Can be persistently demanding



Fitting Together- 4 ½ Years

Cognitive/Learning Behavior

- Builds more complicated block structures
- Is more self-motivated and focused
- Prefers reality in play
- Likes to show off dramatically
- Begins to play collaboratively



Smooth- 5 Years

E



Smooth- 5 Years

E

- Developmental age 5 (a lot like 2, 10)
- Little difficulty with self or the world
- Handles problems and setbacks with confidence; takes things more lightly

Smooth- 5 Years

E

Physical/Motor Behavior

- Is more poised than at 4
- Is more organized and has greater control of movements
- Has well-developed gross motor skills
- Has established hand dominance
- Has increased control over pencil grasp

Smooth- 5 Years

E

Language Behavior

- Experiences an explosion in language learning
- Shows much interest in new and big words
- Knows that words represent ideas and objects
- Asks questions now to seek information
- Pronunciation clear

Smooth- 5 Years

Social Emotional Behavior

- Wants to please and do things right
- Wants to have things go smoothly and is a much easier playmate
- Is more independent in personal care skills
- Often enjoys one-on-one activities

E

Smooth- 5 Years

Cognitive/Learning Behavior

- Asks how, when, what and especially why questions
- Lives in the moment
- Needs adult approval
- Relates imaginative play to real life
- Exhibits increasingly creative and constructive abilities

E

Gesell Maturational Theory

- All children cycle through sequential and predictable stages of development
- Children develop at their own unique, individual rate
- Children's developmental age (stage) can differ from their chronological age
- Strong relationships exist between a child's behavior and their growth and development

Gesell Maturational Theory

Each child develops at his/her own rate

Earlier is not better and later is not lesser





Kids these days...

demonstrate the same developmental ages and stages, pace and patterns of growth as originally determined by Dr. Gesell.

March 28, Number 5
Spring/Summer 2010
Kids Haven't Changed: Kindergarten Has
How data support return to 'balance' in kindergarten
@LACSP/PPHMO
"The child develops, the culture changes."
Frances Itig

Theories of Child Development

Understanding Developmental Theory Assists Not only in...

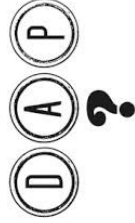
- Facilitating effective curriculum planning
- Providing information for creating a developmentally appropriate environment
- Assisting in the identification of inconsistencies in development

But also in...

- Setting realistic shared expectations of behavior and performance for parents and teachers

Developmentally Appropriate Practice

Who's down with



The Elephant in the Classroom



What is "normative" anyway?

The Elephant in the Classroom

What is "normative" anyway?

Maturationalists believe that "normative" development is a biological process that occurs automatically in predictable, sequential stages over time (Hunt, 1969).

Normative can:

- Be sporadic and inconsistent
- "Appear" to have setbacks
- Include negative and positive behaviors, both of which help the child grow and develop

Gesell's Maturational Theory

"In appraising growth characteristics we must not ignore environmental influences — cultural milieu, siblings, parents, food, illness, trauma, education. But these must always be considered in relation to primary or constitutional factors, because the latter ultimately determine the degree, and even the mode of reaction to the environment. The organism always participates in the creation of its environment, and the growth characteristics of the child are really the end-product expressions of an **interaction** between **intrinsic** and **extrinsic** determiners. Because the interaction is the crux, the distinction between these two sets of determiners should not be too heavily drawn."

— Arnold Gesell, 1940

Today's Agenda



- What is trauma?
- Who experiences trauma and why?
- How does trauma impact learning?

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Define Trauma

A response to a negative external event or series of events which surpasses the individual's / child's ordinary coping skills.

Traumatic experiences can adversely impact brain development and behavior.

Substance Abuse and Mental Health Services Administration, 2014

106

Define Trauma

Exposure to a trauma or trauma event does not necessarily mean that a child will develop a traumatic response



107

Define Trauma

- Physical trauma
- Psychological trauma
- Social / Relational trauma
- Historical trauma
- Vicarious or secondary trauma

108

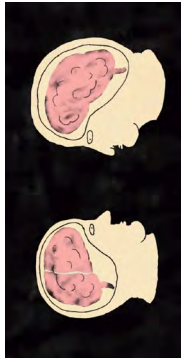
Define Trauma



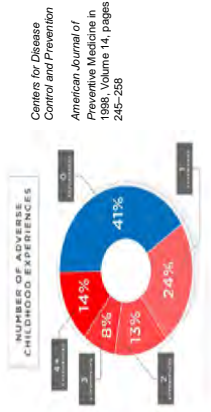
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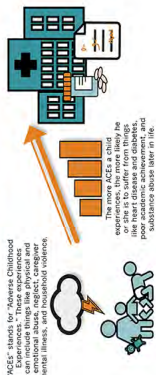
A New Understanding of the Childhood Brain: Trauma



Adverse Childhood Experiences Study (ACEs) 1995-1997



WHAT ARE ACEs? AND HOW DO THEY RELATE TO TOXIC STRESS?

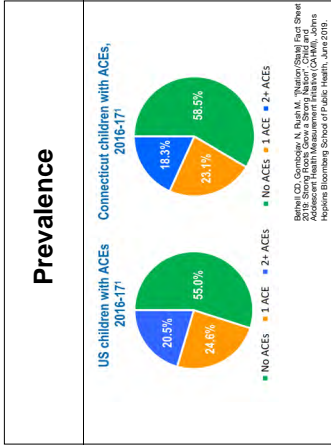
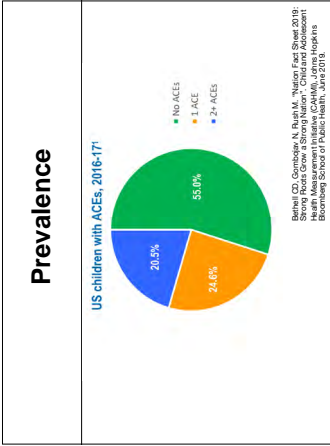


Harvard Center for the Developing Child

Adverse Childhood Experiences Study (ACEs) 1995-1997

Household Dysfunction	Abuse	Neglect
Substance abuse in home	27%	Psychological 11%
Parental depression/divorce	23%	Emotional 15%
Mental illness in the home	19%	Physical 10%
Domestic violence against mother	13%	Sexual 21%
Incarcerated household member	5%	

*Circles for Disease Control and Prevention
American Journal of Preventive Medicine in 1998,
Volume 14, pages 245-258*



Prevalence

1 in 5 children have experienced 2 or more ACEs

Nearly two-thirds of adults have been exposed to at least one ACE

2017 National Survey of Children's Health

GESELL INSTITUTE OF CHILD DEVELOPMENT

ACEs Influence on Development

Foundations of Healthy Development and Sources of Early Adversity

Relationships of Parent, Family, and Community
Physical and Environmental Interactions
Biological and Psychological Processes

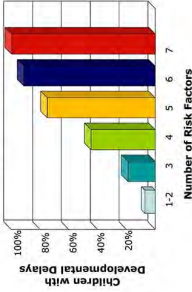
Living Outcomes: Health Status, Behavior, Academic Achievement, Psychological Distress, Physical Disability

Physical and mental health disparities may originate from adverse experiences early in life. Exposure to an unsafe physical environment/unhealthy relationships can cause epigenetic changes in a developing child, which may lead to physiological disruption and harmful behaviors.

Source: National Scientific Council on the Arts, "The Arts in Early Childhood: A Developmental Framework," Harvard University.

- Physical and mental health disparities may originate from adverse experiences early in life
- Exposure to an unsafe physical environment/unhealthy relationships can cause epigenetic changes in a developing child, which may lead to physiological disruption and harmful behaviors

Significant Adversity Impairs Development in the First Three Years



Impact

Table 1. National CHILD outcomes by ACEs, 2010-2017 (NCHS).

Outcome	0 ACEs	1 ACE	2+ ACEs
Child with emotional/behavioral problems	13.5%	21.8%	29.2%
Child with cognitive/academic problems	4.4%	8.1%	14.8%
Child with physical disability	0.6%	1.4%	2.7%
Child with mental health problems	1.4%	3.1%	5.4%
Child with substance use problems	0.1%	0.3%	0.6%
Child with any of the above	1.4%	3.1%	5.4%

Briefell, C.D., Gombay, N., Fluh, M., "Nation's First: Strong Roots Grow a Strong Nation", with Measurement Initiative (CIRM), Johns Hopkins Bloomberg School of Public Health, June 2018.

Impacts of Trauma: Learning

Students who experience traumatic stress perform worse **academically** and **cognitively**, and their teachers reported **more challenging behavior in the classroom**.

FACT ABOUT TRAUMA
 Experiences reported from or near traumatic events (ACEs) were 3x more likely to have poor attendance, 4x more likely to have behavioral problems, and 6.5x more likely to have an identified behavioral health problem, compared to students without trauma (based on a nationally designed survey).

School Related Outcomes of Traumatic Event Exposure and Traumatic Stress
 M.A., Turley, M.R., Carlson, J.B., et al. (2018). *Journal of the American Academy of Child and Adolescent Psychiatry*, 57(10), 917-922.

Impacts of Trauma: Learning

A 2018 study of K-6 students also found each ACE increased a student's risk of absenteeism, behavior problems, and performing below-grade level in reading, writing, and mathematics.

Sch. Psychol. Q. 2018, Mar; 33(1):137-146. doi: 10.1037/spq0000256.
 The association between adverse childhood experiences (ACE) and school success in elementary school children
 Douglas G. L. Lagan, MD.

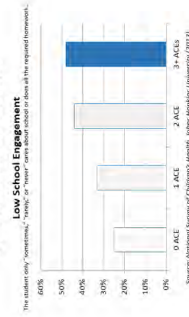
Impacts of Trauma: Learning

- May cause intrusive thoughts, damage sleep schedules by causing nightmares, anger and moodiness, social withdrawal which interferes with memory and concentration
- High rate of absences, lower grades, behavioral problems
- Increased risk of:
 - o Thoughts about safety or death
 - o Loss of interest in normal activities
 - o School refusal
 - o Irritability

The higher the ACE score the higher chance of children developing ADHD and cognitive impairments that may hinder their learning (32x more likely to have learning and behavioral problems)

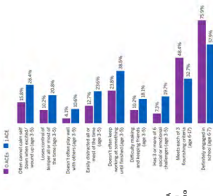
Impacts of Trauma: Learning

ACE Effects in School



Impacts of Trauma: Learning

Prevalence of Social and Emotional Skills and Challenges of Children and Youth



Compared to those with no ACEs, children ages 3-5 with 2+ ACEs are four times more likely to have 3 or more social and emotional challenges

Source: CDC, Dana Miller, Georgetown University, Schiraldi, D., & Kessler, R. (2018). A review of the literature on adverse childhood experiences and mental health. <https://www.cdc.gov/ncehs/aces/aces-review-2018.pdf>

Impacts of Trauma: Physical and Emotional

- Headaches and stomachaches
- Lack of emotional control; Anger and aggression
- Develop more fears
- Intense reactions to reminders of the events
- More likely to struggle with romantic relationships
- Anxiety
- Lack of trust and feelings of isolation
- Low Self-esteem/ Self-destructive Behavior
- The higher the ACE score, more adverse adult health
 - 4.6x more likely to have clinical depression

Remember, everyone in the classroom has a story that leads to misbehavior or defiance. 9 times out of 10, the story behind the misbehavior won't make you angry. It will break your heart.

- Annette Broque

Don't ask "What did you do?"
Ask "What happened to you?"

How Trauma Impacts Health



Nadine Burke Harris (16 mins)

Define Trauma



<https://www.youtube.com/watch?v=0TfBf6o0k>

Trauma and The Brain

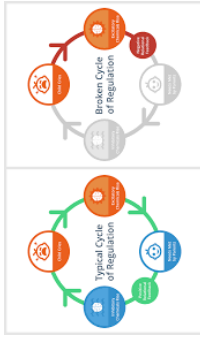


POSITIVE
Brief increases in heart rate, mild elevations in stress hormone levels.

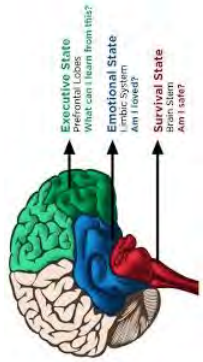
TOLERABLE
Serious, temporary stress responses, buffered by supportive relationships.

TOXIC
Prolonged activation of stress response systems in the absence of protective relationships.

Trauma and The Brain

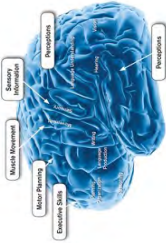


Trauma and The Brain



Know Kids: Understanding Challenging Behaviors

Neuroscience of challenging behaviors



Trauma and The Brain

Fight, Flight or Freeze



Trauma and The Brain

Fight, Flight or Freeze



Factors Affecting Response to Traumatic Event

Risk factors: Characteristics, variables or hazards that, if present, make it more likely that the individual is vulnerable to develop a disorder or traumatic response to an adverse experience (Gaurino & Chagnon, 2018)

Protective factors: skills, strengths, resources, supports or coping strategies in individuals, families, communities or the larger society that aid an individual in coping more effectively with stressful events and mitigate or eliminate risk in families and communities; these may interrupt the trajectory from risk to pathology (Gaurino & Chagnon, 2018)

Psychological safety: an individual's trust in that the world is generally a safe place free from harm (Chadwick Trauma-Informed Systems Project, 2013)

Regulation: ability to identify, evaluate, and modify the experience and consequences of affect or reactions; this ability may be negatively impacted as a result of exposure to trauma (Gaurino & Chagnon, 2018)

Factors Affecting Response to Traumatic Event

Build in the Bounce!

Resilience: an individual's ability to overcome adversity and continue his or her normal development. In the context of exposure to significant adversity, resilience is both the capacity of individuals to navigate their way to the psychological, social, cultural, and physical resources that sustain their well-being, and their capacity individually and collectively to negotiate for these resources to be provided in culturally meaningful ways (Panter-Brick, 2015; Rutter, 1993)



Resilience

Adverse Childhood Experiences and Protective Factors

Protective Factors (PF): parental and community factors that can reduce the effects of past ACE's and prevent future ACE's from occurring

- Safe neighborhood
 - Supportive neighbors
 - 4 neighborhood amenities
 - Well-kept neighborhood
 - ≥ 5 family meals per week
- **Most significant PF:** a parent who communicates with the child about their ideas and interests

Adverse Childhood Experiences and Protective Factors With School Engagement: Associations from the National Longitudinal Study of Adolescent Health. *Journal of Adolescent Health*, 2014, 55(4), 503-510.

Resilience



- Resilience: ability to overcome ACEs, protective experiences and coping skills that help counteract adversity
 - Foundation: supportive relationships, adaptive skill-building, and positive experiences
- Interaction between biology (genetics) and environment (supportive adult/community) builds resilience in the face of negative outcomes
- Building resilience can happen at any age through appropriate health promoting activities (i.e., regular exercise and stress reduction practices)
- Adults who strengthen their own resilience through healthy behaviors are better models of these behaviors for children in their lives

Chen, M., & Wang, M. (2014). The Resilience of Children of Migrant Workers in China: A Study of the Role of Parental and Community Support. *Journal of Adolescent Health*, 55(4), 511-518.

Resilience

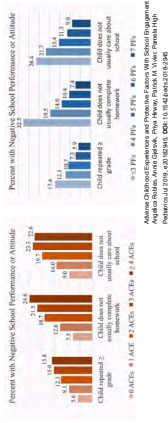
Important Counterbalancing Factors in Building Resilience

- Facilitating supportive adult-child relationships
- creating and maintaining a sense of self-efficacy and perceived control
- Providing opportunities to strengthen adaptive skills and self-regulatory capacities
- Mobilizing sources of faith, hope, and cultural traditions
- Learning to cope with manageable stress to develop strength against toxic stress
- **Single most common factor in children who develop resilience is at least one stable and committed relationship with a supportive adult in their life**

Wang, M., & Chen, M. (2014). The Resilience of Children of Migrant Workers in China: A Study of the Role of Parental and Community Support. *Journal of Adolescent Health*, 55(4), 511-518.

Impacts of Trauma: Protective Factors

Results: Negative school outcomes are associated with higher ACE scores and lower PF scores, and positive school outcomes with higher PF scores and lower ACE scores



Today's Agenda

- What is trauma?
- Who experiences trauma and why?
- How does trauma impact learning?
- What are trauma informed practices?
- Why are they beneficial to all?
- Examples of trauma informed practices

“ No significant learning occurs without a significant relationship.”
 — Dr. James P. Comer, Yale Child Study Center
 edutropica

Attachment- Still Face Experiment



Trauma and Relationships Secure Attachment

Dysregulation

COREGULATION

Self-Regulation

What Grows Brains Best?

HARVARD CENTER ON THE DEVELOPING CHILD

• Reduce sources of stress

• Responsive Relationships

• Strong core life skills

Trauma and Relationships Secure Attachment

Attachment

Learning

Exploration

Trauma and Relationships Secure Attachment

How Does Trauma Undermine Learning?

Language and Communication

When children are exposed to primarily "instrumental" language ("sit down", "be quiet"), they may not develop language needed to express thoughts and feelings.

They may appear demanding and inflexible because they lack the language to communicate any other way.

How Does Trauma Undermine Learning?

Social and Emotional Regulation

May have difficulty regulating their emotions.

Overwhelmed by feelings of fear and stress that keep their brains hyper-aroused.

They may appear unable to control impulse; behaving aggressively; feeling unsure about security of relationships; misunderstanding facial and body expressions.

How Does Trauma Undermine Learning?

Building Relationships

When early experiences have been unsafe and unstable, keeping others at a distance is a way to emotionally, and sometimes physically, protect themselves.

May engage in dangerous behaviors or use hurtful language to protect themselves from forming relationships that could cause pain or harm.

How Does Trauma Undermine Learning?

Play

Trauma can interfere with imaginative or creative play. The feelings that arise during play may overwhelm children.

May have trouble initiating play with other children and need support. May choose younger children because their play skills are young for their age.

How Does Trauma Undermine Learning?

Withdrawal

Children may have a hard time listening and concentrating because they dissociate or freeze when their stress response is triggered by sounds, smells or behaviors.

Even friendly touch can cause a child to be triggered or dissociate if surprising or misunderstood.

Withdrawal leaves children vulnerable to falling behind or being labeled as "daydreamers."

Trauma Informed Responses

Behaviors

Being fearful, clingy or unusually scared of being alone or separated from parents Offer frequent reassurances; "I will be here with you all morning." "I'll be waiting at the sink when you come out of the restroom."

Remind children to look at posted photos of family.

Point to the posted schedule to confirm what will be happening next and where you will be.



Trauma Informed Responses

Behaviors

Expressing fears that a disaster isn't over or will happen again Regularly provide calm, honest explanations



Trauma Informed Responses

Behaviors

Regressing to behaviors they've outgrown, such as thumb-sucking, wetting their pants, or using baby talk Remain calm and matter-of-fact.



Trauma Informed Responses

Behaviors

Sleeping fitfully, not being able to fall asleep, hearing nightmares, or screaming in their sleep

Stay near the child before they nap, as they fall asleep. Use calming music. Have the child nap with a stuffed animal.

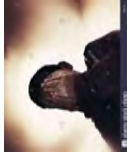


Trauma Informed Responses

Behaviors

Recreating a disaster in their play

Pose challenges that let the child have control over the disaster: "What can you do to make your Lego house safer?"



Trauma Informed Responses

Behaviors

Acting out, aggressively hitting or kicking others

Let them know it's ok to be angry, but not to hurt anyone. Redirect to a safe place.



Trauma Informed Responses

Behaviors

Being withdrawn, not talking

Provide extra attention. Let the child know that you are there if they want to talk, but don't force them to do so.



Screening for Trauma

The Child Trauma Screener (CTS) was developed by the Connecticut Department of Health and Families and Yale to provide a free screening resource for those working with or identifying children who have suffered from trauma

- 10 item assessment
- Includes items that discuss events and reactions, so that reactions to an unreported event may still be recorded
- Available for children ages 6-17, 3-6 year old is currently being developed
- Caregiver and child report forms for deeper understanding

Link: Jason, "Information about the Child Trauma Screen" 2019, 2019. Health and Development Institute of Connecticut.

Screening for Trauma

CTS Child Report Trauma Screener

Link: JIA & Corral CGLU, "Development and Validation of the Child Trauma Screener for Trauma Theory Research, 2019"

Screening for Trauma

CTS Caregiver Report Trauma Screener

Link: JIA & Corral CGLU, "Development and Validation of the Child Trauma Screener for Trauma Theory Research, 2019"

Screening for Trauma

Example of a Family Stress Inventory

This inventory is used to identify families who have experienced ACEs. It is based on the Family Stress Inventory (FSI) developed by the National Center for Child Abuse and Neglect (NCCAN).

Instructions: Circle the number that best describes how often you experience the following stressors.

Stressor	1 (Never)	2 (Rarely)	3 (Sometimes)	4 (Often)
1. Financial problems				
2. Family conflicts				
3. Family illness				
4. Family death				
5. Family violence				
6. Family substance abuse				
7. Family mental health problems				
8. Family physical health problems				
9. Family social problems				
10. Family educational problems				
11. Family religious/spiritual problems				
12. Family cultural/language problems				
13. Family legal problems				
14. Family housing problems				
15. Family transportation problems				
16. Family food problems				
17. Family safety problems				
18. Family environmental problems				
19. Family community problems				
20. Family neighborhood problems				
21. Family social support problems				
22. Family social network problems				
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24. Family social stigma				
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Friends Center for Children at Yale University




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Yale Child Study Center
 Since 1909

Peg Oliveira, PhD
 Executive Director
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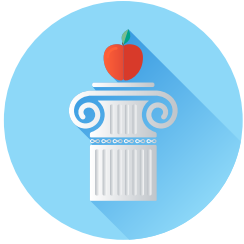
Florida Child Care Professional Credential

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- Curriculum (EEC1202)
- Creative Expression (CHD1332)
- Practicum (EEC1946)

Director Credential

- Administering a Child Care Center (CHD2800)

Applicants must have a current FCCPC or CDA staff credential



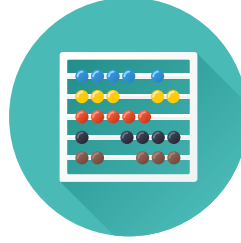
Build
on your strengths
as an educator



Discover
recommendations for
activities and more



Work
towards goals for
your classroom



Implement
ideas and concepts from
professional development
workshops



Create
stronger relationships
with staff and parents



Collaborate
with a supportive and
experienced educator

COACHING FOR EARLY EDUCATORS

Contact a
coach to get
started!

ChildcareResourcesIR.org/coach



Paulette Maggiasco

is a former early educator with 25 years of experience. She holds a Bachelor's degree in Elementary Education and a Master's degree in Reading Education. Paulette is certified through the University of Florida Lastinger Center Coaching Academy.

Susan Roberts

is an educator with 29 years of experience in Indian River County. She holds a Bachelor's and a Master's in Early Childhood Education and a Specialist degree in Educational Leadership. Susan is certified through the University of Florida Lastinger Center Coaching Academy.



For more information, please call 772-567-3202

COMING SOON FOR EARLY EDUCATORS



Foundations of Child Development & The Brain in Early Childhood

First Presbyterian Church
October 12, 2019

featuring
Dr. Peg Oliveira, Executive Director,
Gesell Institute of Child Development



Emergent Literacy

Vero Beach Museum of Art
November 16, 2019

featuring
Cynthia Raso, Director of Office of
Engagement, Smithsonian Early
Enrichment Center



Conscious Discipline

First Presbyterian Church
February 1, 2020

featuring
Kim Hughes, Conscious Discipline Master
Instructor



The Importance of Early Experiences & Sensory Play for Every Day

First Presbyterian Church
March 14, 2020

featuring
Lisa "Ooey Gooley Lady" Murphy, M. Ed.



CHILDCARE RESOURCES MISSION

To elevate and promote the highest quality early childhood development and education in Indian River County, focusing on economically challenged children and families.

CHILDCARE RESOURCES VISION

All children and their families benefit from a high quality learning experience.

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