## TEACCH Autism Program: Learning Style of Autism and Program Overview Presented By: Mary E. Van Bourgondien, Ph.D. Professor, Psychologist The UNC TEACCH Program Clinical Professor, Psychiatry THE UNIVERSITY OF NORTH CAROLINA ACCUSATION AUGISM PROGRAM OF CHAPPL HILL

#### **Objectives - Day One**



- Describe the learning styles of autistic individuals
- Recognize the core components of the TEACCH philosophy and program
- Explain the three principles of Structured TEACCHing



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#### **Objectives - Day Two**

- Recognize how informal assessment leads to individualized intervention strategies
- Explain how the application of Structured TEACCHing principles leads to improvements in flexibility and the generalization of skills across settings
- Learn about the TEACCH programs designed to help youth transition to adulthood

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#### **Objectives - Day Three**



- Describe strategies for improving the social communication skills of individuals with autism
- Explain the Structured TEACCHing approach to behavior management
- Share intervention strategies for improving emotional regulation skills

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Both "person-first" (i.e., "person with autism") and "identity-first" (i.e., "autistic person") terminology are used interchangeably because both are favored by different parts of the autism community. "Person-first" language attempts to focus on the person rather than their disability. "Identity-first" language acknowledges that some people feel autism is a central part of their identity. We use both "person-first" and "identity first" to be inclusive of the disability community as a whole. We use the language that is the individual's preference.

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#### Mission

Creating and
disseminating exemplary
community-based
services, training
programs, and research to
enhance the quality of life
of individuals with Autism
and their families.

#### Established in 1972

- Administration and research center (based at UNC-Chapel Hill School of Medicine)
- 7 community-based regional outpatient clinics
- Supported employment program in Chapel Hill & Greensboro, NC
- Residential facility for adults located in Pittsboro, NC.
- National & international training program

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#### **UNC TEACCH Autism Program**

- Established in 1965 in the University of North Carolina School of Medicine, in recognition of the unique needs of individuals with autism
- Leadership

Eric Schopler



Gary Mesibov



Current: Laura Klinger



Part of the UNC Health Care System and the North Carolina AHEC Program.

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### **Clinical Services Across the Lifespan**

- · Diagnostic Evaluations
- Intervention Services:
  - · Early Intervention (TEACCH for Toddlers)
  - · Parent Teaching/Coaching
  - · School-Aged Intervention Groups
    - · Growing Living & Learning with Autism
    - · Facing Your Fears
  - · Transition Services (T-STEP)
  - · Adult Counseling & Intervention Groups
- Community Workshops
- School Consultation Program
- Employment & Residential Consultation

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#### TEACCH Student & Professional Development Training Programs

- Student Clinical Practicum & Internships
  - Psychology
  - Social Work
  - Occupational Therapy
  - Speech Language Pathology
- Annual Conference
  - · October 24-25, 2024
- Virtual Trainings
- 5 Day Classroom and
  - Adult Training Model
- Professional Certification Program

 $\label{thm:complex} \textit{Visit the TEACCH website:} \ \underline{\textit{https://teacch.com/trainings/}} \ for additional information$ 

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#### TEACCH Professional Certification Program

- A comprehensive Professional Certification Program for educators, psychologists, social workers, speech therapists and other service providers in the field of autism.
- Two levels of certification
  - TEACCH Certified Practitioner
  - TEACCH Advanced Consultant

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#### **Research at TEACCH**

#### Children

- TEACCH for Toddlers
- Facing Your Fears
- Growing Living & Learning with Autism (Group emotion regulation)
- DBT-ST group feasibility for autistic adults
- Primary Care and Mental Health Best Practices (Project ECHO)

#### Adolescents & Adults

- TEACCH School Transition to Employment & Post-Secondary Education Program (T-STEP) - Klinger
- HEELS 2 Participation: Improving community participation for young adults with I/DD Tomaszewski
- Advancing the System of Care for Autistic Older Adults" designed to study health and mental health outcomes in autistic older adults. Klinger & Maddox
- Suicide Prevention for autistic adolescents and adults - Maddox

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## **University of North Carolina TEACCH Autism Program**

### TEACCH Intervention and Philosophy

Autism Independent UK, Kettering 2024







#### **TEACCH Intervention Philosophy**

- · Family collaboration
- · Culture of Autism:
- learning styles and differences
- Strengths based approach:
  - visual supports
- Whole person view/life-long learner



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#### **Parent Professional Collaboration**

- Parents/caregivers know their child the best
  - Strengths, interests, and challenges
- As professionals, we know about autism in general and intervention strategies
- Together, mutually support one another
- Parent is likely to be the advocate in the long run

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#### **Goals: Beginning Steps**

- 1. Engagement
- 2. Learn new skills
- 3. Decrease behavior problems

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#### **Goals: Lifelong Learner**

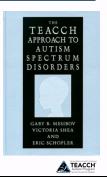
- 1. Independence
- 2. Flexibility
- 3. Generalization
- 4. Self Advocacy
- 5. Well-Being
  - Happy, healthy, self-efficacy, competence

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#### **TEACCH**

- Generalist training
- Evidence-based practice



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#### Curriculum

- Knowledge of autism
- Working with families
- Structured teaching
- Communication
- Social and leisure skills
- Self-help and domestic skills
- Academic skills
- Vocational skills and behaviors

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## Learning Styles in Autism THE UNIVERSITY Of NORTH CAROLINA A CHAPPEL HILL TEACH TEACH TEACH TEACH TEACH TEACH TEACH AUTISM AUTISM

#### **Objectives of Presentation**



- Understand the unique learning styles and symptoms of individuals with autism
- Understand the connection between learning styles, challenging behaviors and Evidenced-Based Practices of Structured TEACCHing strategies and visual supports.
- Develop and implement interventions based on individual's learning styles and developmental differences

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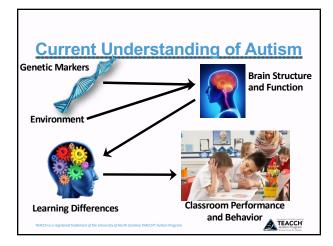


### Autism: Understand the Culture of Autism

- Learning Styles
- Behaviors
- Strategies

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## **CDC Prevalence Data from the ADDM Network**



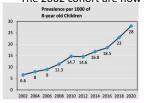
- 2.8% of 8-year-old children in the US. Increase from 2.3% (1 in 44) in 2018
- 4% of boys and 1% of girls aged 8 years
- 49% evaluated by age 36 months; median age of diagnosis 49 months
- Black and Latine children are diagnosed, on average, 6 months to 2 years later
   Autism and Developmental Disabilities Monitoring Network Maenner et al., 2023

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#### **CDC Prevalence of Autism**

- Rate of autism increased from 1 in 150 to 1 in 36.
- The 2002 cohort are now 29 years old.



Huges et al (2023).

ADDM Network estimates for overall autism prevalence in US over time. CDC website

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#### TEACCH Autism Program

#### **Autism Spectrum Disorder**

- Neurodevelopmental disorder brain organized and functions differently
- Starts early in life but presentation of symptoms may be delayed



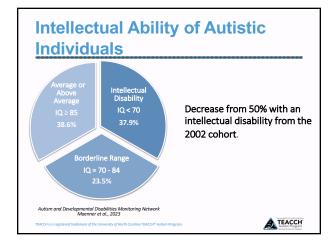
TEACCH Autism Program

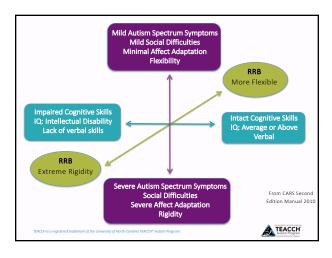
#### **DSM-5: Autism Spectrum Disorder**

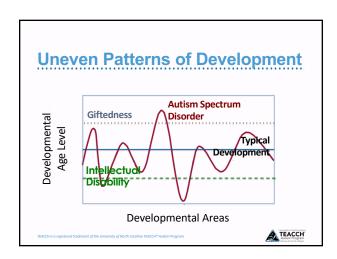
- · Social Communication
- · Deficits in social-emotional reciprocity
- Deficits in nonverbal communicative behaviors
- · Deficits in developing and maintaining relationships
- Restricted, Repetitive Patterns of Behavior, Interests, or Activities
  - Stereotyped or repetitive speech, movements, or objects
  - Excessive adherence to routines, ritualized verbal or nonverbal behavior
  - · Highly restricted, fixated interests (intensity or focus)
  - · Hyper-or hypo-reactivity to sensory aspects of environment

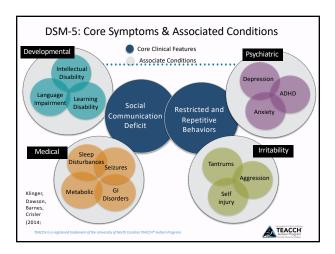
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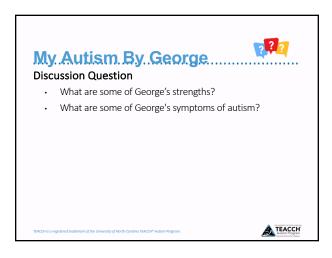












#### "Once you have met one person with autism, you've met one person with autism" attributed to many including Stephen Shore

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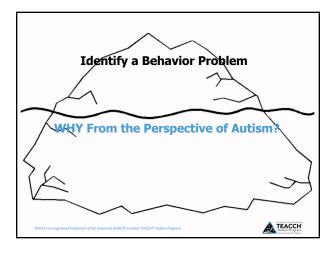
## Implications for Understanding Autism

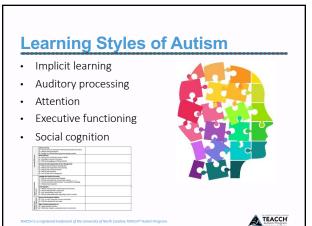
- Individuals with autism learn differently
- Their learning differences can create unique strengths and challenges.
- Neurodiversity view that focuses on valuing strengths and supporting challenges

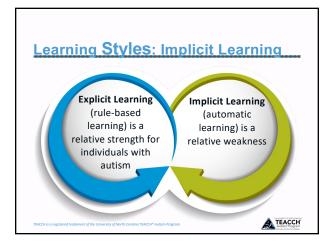


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## "Temple [Grandin] had longed for friends at school ...while they admired her intelligence, they never accepted her as part of their community. "I could never figure out what I was doing wrong. I had an odd lack of awareness that I was different. I could never figure out why I didn't fit in." Something was going on between the other kids, something swift, subtle, constantly changing-an exchange of meanings, a negotiation, a swiftness of understanding so remarkable that sometimes she wondered if they were all telepathic. " -Oliver Sacks writing about Temple Grandin

#### **Learning Styles: Implicit Learning**

Difficulty with Generalization

- Trouble exhibiting the same skill across people, places and materials
- Knowing what to do based on prior learning or experiences

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#### Learning Style: Implicit Learning

#### **IMPLICATION FOR TEACHING AND INTERVENTION**

- Use direct (explicit) instruction to teach skills and to clarify what "to do"
  - Use specific language
  - Use visual supports to teach new skills
- Teach the use of visual strategies that support generalization
  - $\boldsymbol{\cdot}$  Use visual reminders to implement routine strategies
- Create narratives to explain the "hidden" rules of social expectations.

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## Learning Styles: Auditory Processing

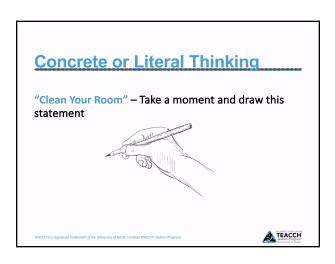
- · Strength in visual processing
- Difficulty with abstract language (concrete or literal thinking)
- Delayed processing of language



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# Auditory Processing: Temple Grandin "I think in pictures. Words are like a second language to me. I translate both spoken and written words into full-color movies, complete with sound which run like a VCR tape in my head. When someone speaks to me, his words are instantly translated into pictures." Thinking in Pictures





### Learning Styles: Auditory Processing

#### IMPLICATION FOR TEACHING AND INTERVENTION

- Use gestures, meaningful concrete examples, and visual instructions/supports
- Allow time to process information and formulate a response

If you cannot draw it, it might be too abstract

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#### **Learning Styles: Attention**

- · Sticky Attention (Central Coherence)
  - Strong attention for high-interest
  - · Difficulty disengaging and shifting
  - · Problems seeing big picture
- Narrow Beam
  - Strength in focusing on details and facts
  - Difficulty determining relevant vs. irrelevant details



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#### **Learning Styles: Attention**

#### IMPLICATION FOR TEACHING AND INTERVENTION

- Organize and segment the environment to engage and maintain attention
- Use visual structure to direct attention to important and relevant information
- Use visual supports to enhance meaning and understanding of abstract concepts
- Use a variety of visual cues to help disengage and shift attention
- Incorporate special interests to engage attention

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## Learning Styles: Executive Functioning

- Weak organizational skills
- Sequencing / planning
- Trouble with initiation
- · Understanding "finished"
- Set shifting / flexibility
  - · Difficulty with transitions



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### Implications of These Learning Differences?



Need predictability
Routines are predictable

But, routines can encourage rigidity

So.... TEACH FLEXIBILITY

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#### **Learning Styles:**

#### **Executive Functioning**

IMPLICATION FOR TEACHING AND INTERVENTION

- Provide visual sequences of activities
- Develop and teach organizational strategies
- Teach routine strategies for **self-monitoring**

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## **Learning Styles: Social Cognition**

- · Joint attention
- · Responding to other's emotions
- · Theory of mind
  - Inability to understand that others have perspectives that are different from one's own.
- Double empathy problem (Milton, 2012)
- Mutual misunderstandings in the autistic/non-autistic interaction

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### **Learning Styles: Social Cognition**

#### **IMPLICATION FOR TEACHING AND INTERVENTION**

- Use visual cues to support social understanding and promote social interaction
  - Use social narratives to teach social understanding and clarify expectations
- Incorporate interests to promote social engagement and joint attention
- · Directly teach about emotion in self and others

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### Sensory Processing Impacts Learning

- Problems filtering and modulating input
  - · Hyper-reactivity (over-stimulated)
    - · aversion, avoidance, over-aroused
  - · Hypo-reactivity (under-stimulated)
    - · Sensory seeking
    - · May not notice sensory input
- Difficulty dealing with open space

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#### **Sensory Processing**

#### **IMPLICATION FOR TEACHING AND INTERVENTION**

- Organize and segment the environment to decrease stimulation
- Provide calm and quiet spaces
- · Schedule breaks throughout the day

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## **Summary: Learning Styles in Autism**

#### Strengths

- Explicit learning
- · rules and routines
- Visual information
- Focus on details
- Restricted interests
  - · increased motivation

#### Weaknesses

- Intuitive (Implicit) learning
- · Sticky attention
- · Theory of mind
- · Executive functioning
  - planning, organization, & time



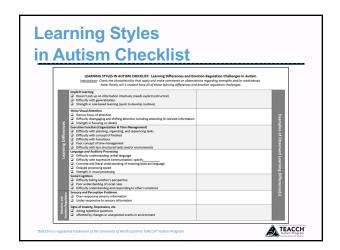


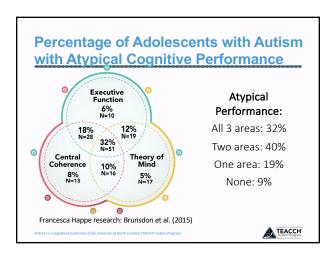


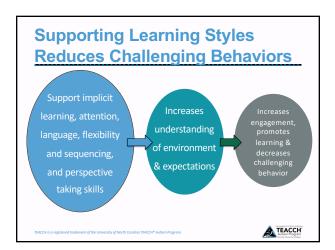


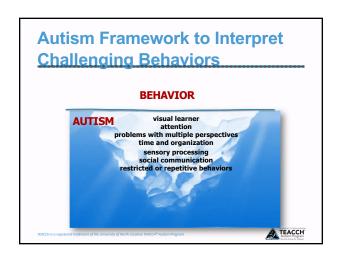


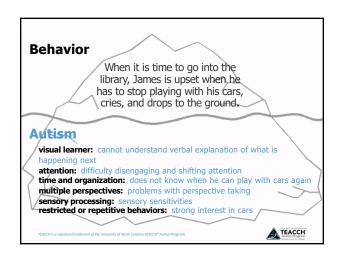
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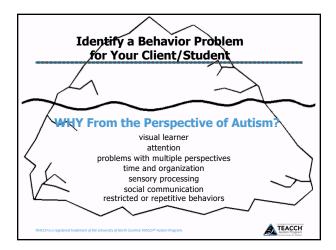


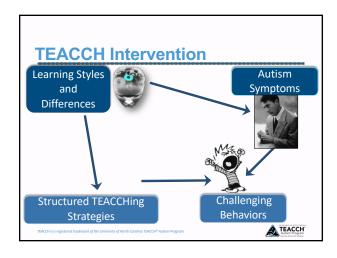












#### Structured TEACCHING is...

- An evidenced-based practice approach.
- Based on the understanding of the <u>symptoms</u> and <u>learning styles</u> of individuals with autism and capitalizes on the individual's strengths.
- Uses strategies and visual supports to <u>provide meaning</u> and <u>promote independence</u>.



## Elements of Structured TEACCHing

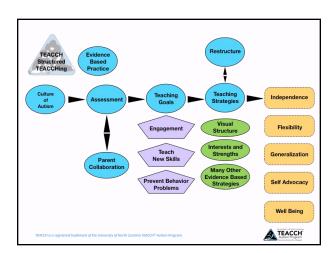
- Individualized daily schedule
- Work/activity systems
- Material structure and visual supports
- · Physical organization



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## Structured TEACCHing as Intervention Antecedent-based Approach Supports the Learning Styles and Behaviors INCREASE MEANING AND CLARITY INCREASE MEANING DIFFERENCES SUPPORT LEARNING DIFFERENCES INCREASE INTIATION AND INCREASE I



## Structured TEACCHing References

- Mesibov, G.B., Shea, V. & Schopler, E. (2005). The TEACCH Approach to Autism Spectrum Disorders. New York: Springer.
- Odom, S.L., Boyd, B., Hall, L. & Hume, K. Evaluation of Comprehensive Treatment Models for Individuals with Autism Spectrum Disorders. Journal of Autism and Developmental Disorders, 40: 425-436
- Mesibov, G.B., Shea, V. (2010). The TEACCH Program in the Era of Evidence-Based Practices. Journal of Autism and Developmental Disorders, 40: 570-579
- The National Professional Development Center on Autism Spectrum Disorders – Evidence Based Practices http://autismpdc.fpg.unc.edu/evidence-based-practices

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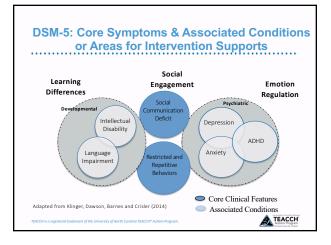
#### **Group Discussion**

 Name one learning style strength or challenge that you will take away from today's presentation



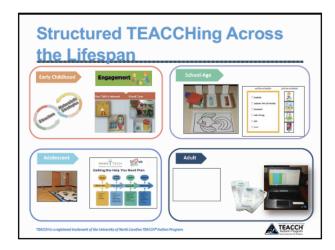
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## University of North Carolina TEACCH Autism Program TEACCH Research: Understanding Autism, Integrating Structured TEACCHing with other Evidence Based Interventions and Focusing on Community Based Autism Independent UK, Kettering 2023 THE UNIVERSITY OF NORTH CAROLINA AUTISM PROGRAM AUTISM P



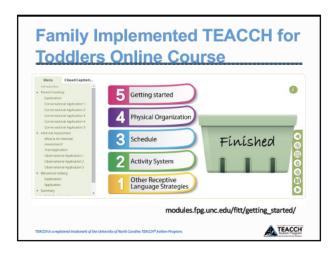
## Intervention Targets of Structured TEACCHing • Learning Styles: • Focus attention on relevant information • Teach organization skills (time management) • Teach explicit routines (play, school, work) • Social Engagement Skills: • Teach developmentally appropriate social skills (turn taking for toddlers, professional social skills for adults) • Teach ways to ask for help • Comorbid Anxiety/Depression: • Teach emotion regulation (coping) skills that can be used at school, work, or home.

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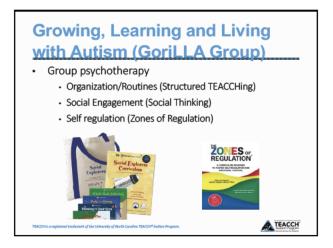


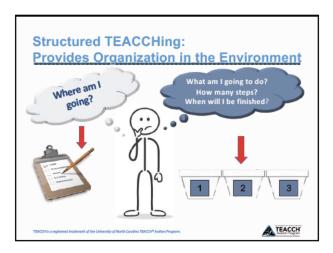


## FITT: Structured TEACCHing for Toddlers Goal is not independence but instead is to support and promote social engagement (attention) Schedules Using objects to help children transition to new activity (e.g., giving a cup when it is time to go to highchair) Activity Systems Embedding social goals (imitation, gesture) into structured activities at the table. Online Resources Early Learning Activity Library (http://fitt.fpg.unc.edu/early-learning-activities) Online professional training program

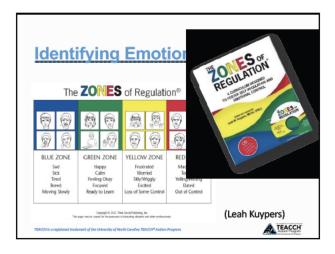


## School-Aged Interventions Predictable Routines to Provide Increased Organization and Support Emotion Regulation to Increase Learning GOFILLA Growing, Learning, and Living with Autism

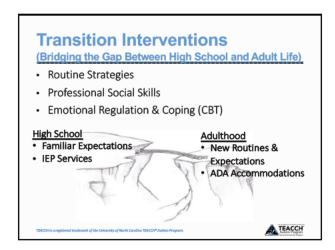


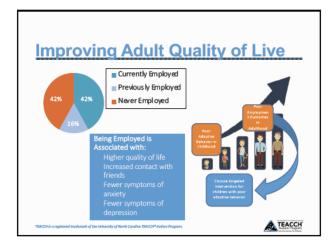


## Social Engagement: Social Thinking™ Concepts - Social Explorers Curriculum 1. Thinking Thoughts and Feeling 2. The Group Plan 3. Thinking with our Eyes 4. Body In the Group 5. Whole Body Listening



## Emotion Regulation/Anxiety Interventions for School Aged Youth Facilitator's Fa





## What is a Good Quality of Life for Adults with Autism? TRACE to employed technock of the Librarity of Racellow TRACE Public Program TRACE to employed technock of the Librarity of Racellow TRACE Public Program TRACE TO Employed technock of the Librarity of Racellow TRACE Public Program TRACE TO Employed technock of the Librarity of Racellow TRACE Public Program TRACE TO Employed technock of the Librarity of Racellow TRACE Public Program TRACE TO Employed technock of the Librarity of Racellow TRACE Public Program TRACE TO Employed Tracellow TRACE Public Publ

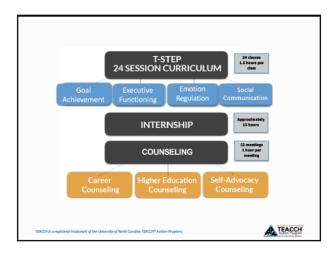


### Strategies to Support Positive Adult Outcomes

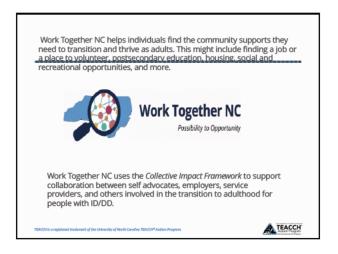
- · Goal Setting & Attainment
- Learning Styles (Executive Function & Attention):
  - Teach executive function (organization; time management)
  - · Teach explicit routines (study skills, work routines)
- Social-Communication/Perspective Taking:
  - · Teach professional social skills
  - · Teach ways to ask for help
- · Emotion Regulation:
  - Teach coping skills skills for school, work, & home.

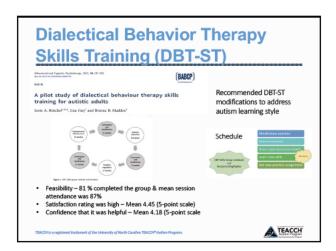
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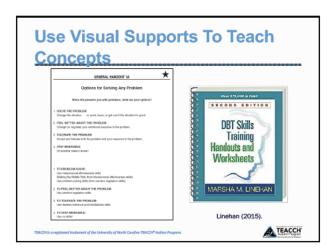


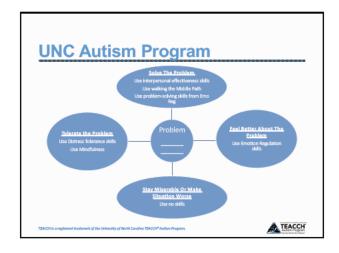


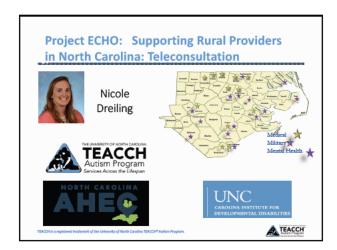










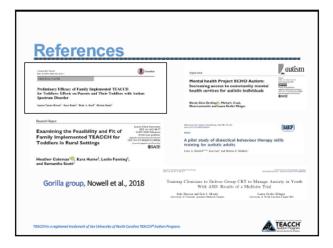


#### **Summary**

- Understanding autism, the learning style and comorbidities informs intervention.
- Targeted interventions focused on organization skills (executive function), social engagement skills, and emotion regulation skills are used across the lifespan.
- A growing number of evidence-based interventions incorporate components of each of these targeted intervention areas from toddlers through adulthood.
- Training future professionals and community providers to increase access to evidence-based interventions.

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#### LEARNING STYLES IN AUTISM CHECKLIST: Learning Differences and Emotion Regulation Challenges In Autism

<u>Instructions</u>: Check the characteristics that apply and make comments on observations regarding strengths and/or weaknesses.

Note: Rarely will a student have all of these learning differences and emotion regulation challenges.

	Implicit Learning	
	Doesn't pick up on information intuitively (needs explicit instruction)	
	☐ Difficulty with generalization	
	Strength in rule-based learning (quick to develop routines)	
	Sticky Visual Attention	
	□ Narrow focus of attention	U U
	☐ Difficulty disengaging and shifting attention including attending to relevant information	<u> </u>
es	☐ Strength in focusing on details	3
Differences	Executive Function (Organization & Time Management)	Examples of Observed Learning Difference(s)
ē	☐ Difficulty with planning, organizing, and sequencing tasks	Š
ffe	☐ Difficulty with concept of finished	ਪ੍ਰ
Ö	□ Difficulty with transitions	ᄋ
<u></u>	☐ Poor concept of time management	)S(
ie	☐ Difficulty with less structured tasks and/or environments	Ž
Learning	Language and Auditory Processing	ec
ě	☐ Difficulty understanding verbal language	
	☐ Difficulty with expressive communication; specify	ea
	☐ Concrete and literal understanding of meaning/abstract language	3
	☐ Delayed processing speed	Œ.
	□ Strength in visual processing	DQ
	Social Cognition	Ĭ
	☐ Difficulty taking another's perspective	<u>fe</u>
	Poor understanding of social rules	<u>e</u> r
	☐ Difficulty understanding and responding to other's emotions	30.
u	Sensory and Perception Problems	s)s
nd lation	Over-responsive sensory information	
or ar egul	☐ Under-responsive to sensory information	
Behavior and otion Regulat	Signs of Anxiety, Depression, etc.	
Beh	Asking repetitive questions	
B Emoi	Affected by changes or unexpected events in environment	