AzSECAP
Arizona State Early Childhood Autism Project

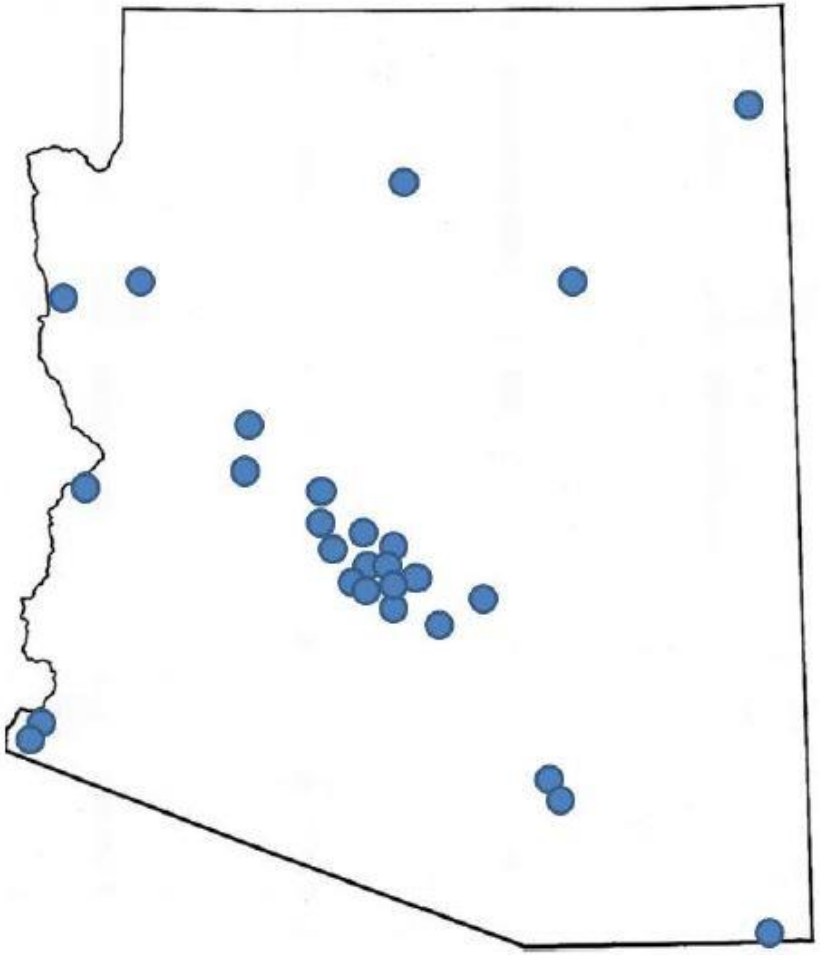
- Provide information and training to 27 early childhood teams throughout the state in evidence-based practices for students with ASD

- Comprehensive Three -Day Workshop
  a. Knowledge
     - ASD
     - Evidence-based strategies
     - Behavioral Principles
  b. Strategies
     - DT, PRT, Functional Routines, PBIS
  c. Programming for individual student needs and team planning for implementation

- Curricula and materials for immediate and practical implementation
  a. Lesson plans and data systems for fidelity of implementation (consistency between staff)
  b. Materials for visual supports and environmental arrangement
  c. Additional materials to support implementation

- On site program implementation and hands-on training
  a. Five visits

Arizona Preschool Sites



District/State-wide Implementation Sites

Arizona Project is developing implementation sites across the state demonstrating the use of evidence-based practices

Project is a collaboration between the Arizona Department of Education and STAR Autism Support (www.starautismsupport.com)

Consideration for Educational Programs For Students with ASD

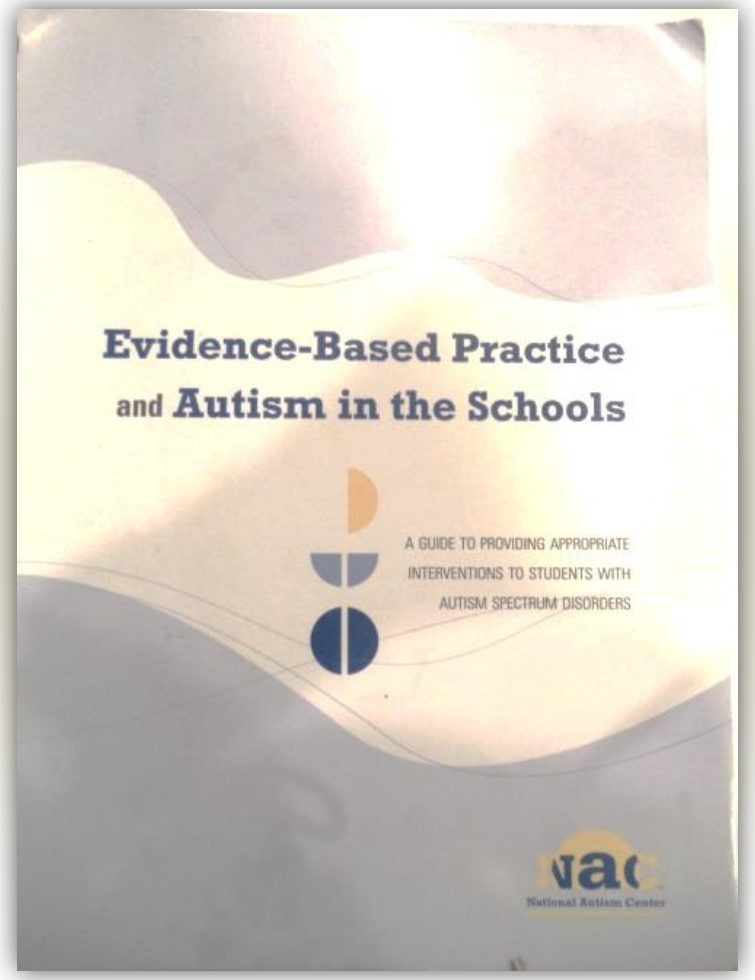
How To Teach

What To Teach

Where To Teach

How to Teach
Use Evidence-Based Practices

Principles of ABA
Task Analysis
Discrete Trial Training
Reinforcement Systems
Peer Mediated Instruction
Schedules
Visual Supports
Aug Communication
Self-Management
Modeling/Imitation
Pivotal Response Training



How to Teach

- Instructional Strategies including:
  - ***Principles of Applied Behavior Analysis***
  - ***Discrete Trial Training***
  - ***Pivotal Response Training***
  - Prompting, Shaping, Modeling
  - Data Driven Instruction
  - Use of Environmental Supports
  - ***Task Analysis: Teaching Routines***

What to Teach

- ***Skills:***
  - Communication (Receptive, Expressive, Spontaneous Language)
  - Social and Play
  - Academic Content
  - Life Skills
- ***Routines:***
  - Activities typical students do
  - Across school, home and community

Where to Teach…….

VARIETY OF SCHOOL ENVIRONMENTS

Effective Programs

- Use ABA Principles to…
- Teach skills necessary to access general education curriculum and environment
  - Readiness and Learning to Learn
  - Receptive/Expressive Language
  - Academic Skills
  - Play and Social

AND

- Generalize Skills into Daily Functional Routines

The STAR Program

- Provides teachers the tools to implement the evidence-based strategies
- Integrates into existing curricula/program s to provide more intensity of instruction for those students that need it
- Research-based as effective in school programs through the Institute of Educational Sciences (IES)

STAR Program(Arick, Loos, Falco and Krug, 2004)

How, What, Where……

Receptive language concepts (DT)		
Lesson number	Lesson name	Sequence*
1	Come Here	1
2	Attending	1
3	Receptive Actions	1
4	Social Communication	1
5	Nonverbal Imitation: Gross Motor	1

Expressive language concepts (PRT)		
Lesson number	Lesson name	Sequence*
1	Babbling and Sound Pairing	
	Babbling	1
	Sound pairing	2
2	Imitation of Words for Requests	
	Imitation of sounds and words	3

Functional routines (FR)		
Lesson number	Lesson name	Sequence*
1	Arrival	1
2	Departure	1
3	Transition Between Activities	1
4	Handwashing	1
5	Snack	1

Preacademic concepts (DT)		
Lesson number	Lesson name	Sequence*
1	Use of Token Board	1
2	Matching Colors	2
3	Matching Shapes	3
4	Coloring/Scribbling	3

Play and social interaction concepts (PRT/FR)		
Lesson number	Lesson name	Sequence*
1	Exploring and Sharing Toys and Learning To Play (PRT)	1
2	Playing with Toys: Constructive and Functional (PRT)	2
3	Independent Play (FR)	2

Receptive language concepts (DT)		
Lesson number	Lesson name	Sequence*
1	Expanded Labels	1
2	Accelerated Labels	2
3	Identification of People	1
4	Actions: Pictures	2
5	Actions: Two-Step Commands	2

Expressive language concepts (DT)		
Lesson number	Lesson name	Sequence*
1	Labels	1
2	Expanded Labels	2
3	Accelerated Labels	2
4	Identification of People	2
5	Actions: Pictures	2
6	Actions: People	3

Spontaneous language (PRT)		
Lesson number	Lesson name	Sequence*
1	Requesting	
	Vocabulary (nouns, verbs, adjectives, adverbs)	1
	Phrase length (2 to 3 words)	1
	Initial Commenting	

Functional routines (FR)		
Lesson number	Lesson name	Sequence*
1	Arrival	1
2	Departure	1
3	Transition Between Activities	1
4	Transition Between Locations	3

Preacademic concepts (DT)		
Lesson number	Lesson name	Sequence*
1	Math: Rote Counting to 10	1
2	Math: Counting 1 to 10 Objects	2
3	Math: Receptive Identification of Numbers 1 to 10	2
4	Math: Expressive Identification of Numbers 1 to 10	3
5	Math: Receptive Counting	3

Play and social interaction concepts (PRT/FR)		
Lesson number	Lesson name	Sequence*
1	Expanded Learning To Play (PRT)	1
2	Expanded Playing with Toys (PRT)	
	Playing with toys	2
	Independent constructive play	3

Receptive language concepts (DT)		
Lesson number	Lesson name	Sequence*
1	Functions of Objects and Community Members	1
2	Prepositions	1
3	Descriptors	1
4	Opposites	2
5	Gender Identification	2
6	Possessives	3
7	First, Next, Last (Location)	3

Expressive language concepts (DT)		
Lesson number	Lesson name	Sequence*
1	Functions of Objects and Community Members	1
2	Prepositions	1
3	Descriptors	1
4	Opposites	2
5	Gender Identification	2
6	Pronouns: He and She	3
7	Extend Sentences with Descriptors	2
8	Expanded Social Questions	1

Spontaneous language concepts (PRT)		
Lesson number	Lesson name	Sequence*
1	Advanced Expanded Requesting	
	Expanded vocabulary	1
	Expanded phrase length	2
2	Advanced Commenting	
	Noun + action + descriptor	1
	Complete simple sentence	2
	Exclamation	2
	Advanced Concepts	

Functional routines (FR)		
Lesson number	Lesson name	Sequence*
1	Arrival	1
2	Departure	1
3	Transition Between Activities	1
4	Transition Between Locations	2
5	Large Group: Opening Activities	2
6	Large Group: Story Time	3
7	Cafeteria Lunch	1
8	Rest Room Use with	2

Preacademic concepts (DT)		
Lesson number	Lesson name	Sequence*
1	Math: Rote Counting	1
2	Math: Receptive Identification of Numbers	1
3	Math: Expressive Identification of Numbers	2
4	Math: Counting Objects Using Numbers	3
5	Math: Adding One-Digit Numbers	4
6	Math: Subtracting One-Digit Numbers	5
7	Math: Identification of Money and Use of Money	4

Play and social interaction concepts (PRT/FR)		
Lesson number	Lesson name	Sequence*
1	Advanced Play (PRT)	
	Functional play	1
	Symbolic play	2
2	Play with Peer and Share Materials (FR)	1
3	Play Game with Peer (FR)	2
4	Pretend Play with Peer (FR)	3
5	Recess: Individual or Independent (FR)	1
6	Recess with Peer	2

STAR Program Curriculum
Students Learn to…

Examples at Level I:

- Use basic language concepts
- Make verbal requests
- Accomplishment simple routines independently
- Engage in beginning play/social skills
- Use pre-academic skills

STAR Program Curriculum Students Learn To….

Examples at Level II:

- Expand language concepts to include, many new nouns, people, actions, two-step commands, book use and emotions
- Use spontaneous language throughout the day
- Become independent in typical daily school routines
- Use basic math, reading and writing academic skills
- Play with others at school

STAR Program Curriculum Students Learn To….

Examples at Level III:

- Understand complex language concepts including, prepositions, pronouns, adjectives, commenting, conversational exchanges and recalling past events
- Academic skills including, reading a simple book, writing from memory, time telling, money use and adding/subtracting 1 digit numbers
- Generalize skills in general education settings

What is Applied Behavior Analysis (ABA)?

- Refers to methods that change behavior in systematic and measurable ways
- Common Themes of applied behavior analysis interventions:
  - Baseline data is collected and analyzed
  - Assessment through observation of behavior, antecedents and consequence
  - Instruction guided by changing antecedents and consequences
  - Structured learning opportunities in 1:1, small group and natural environment settings
  - Data collection is used to determine progress and address program modifications
- STAR Program uses short 1:1 sessions to teach targeted skills with students who need intensive instruction

Discrete Trial Training (DT)

- Skills are taught in a logical sequence building on previously learned skills.

- Concepts taught are identified, then broken down into specific elements for instruction.

- Each session consists of a series of discrete trials:
  a) instructional cue
  b) child response
  c) consequence
  d) pause

Discrete Trial Training (DT)

Cue	Response	Consequence	Pause
Teacher provides instructional cue	Student responds	Teacher pairs student response with positive reinforcement	There is a pause
Teacher says, “Do this” and pushes car.	Student pushes car.	Teacher says “pushing car” and provides student a small piece of a cookie.	Student consumes cookie and teacher pauses before next cue

Timmy video-DT

Pivotal Response Training (PRT)

- PRT is also based on the four–step sequence: cue, child response, consequence and pause.
- Trials are incorporated into the environment in a function context.
- The child chooses the activity or object, and the reinforcer is a natural consequence to the behavior.

Pivotal Response Training (PRT)

Cue	Response	Consequence	Pause
Student indicates interest, teacher withholds item or activity	Student responds	Student gets item	There is a pause
Student reaches for car, teacher withholds and says, “car”. ***Timmy video-PRT***	Student imitates the word car.	Teacher gives student access to car	Student plays with car

Functional Routines Instruction (FR)

- Functional routines are predictable events that involve a chain of behaviors.

- Routines are associated with a functional outcome:
  - Using the restroom
  - Arriving
  - Eating a snack

- The outcome of a routine usually serves as the reinforcer for completing the routine.

Functional Routine Instruction (FR)

Cue	Response	Consequence	Pause
Natural environmental cues provide information to the student	Student does each step needed to complete the routine	Reinforcement is a natural outcome of each step of the routine	Student focuses on next step
Student enters cafeteria and sees others in lunch line	Student walks to end of lunch line and stands behind a peer.	Student moves through line behind peer.	Student focuses on lunch choices.

Timmy video-FR and progress video

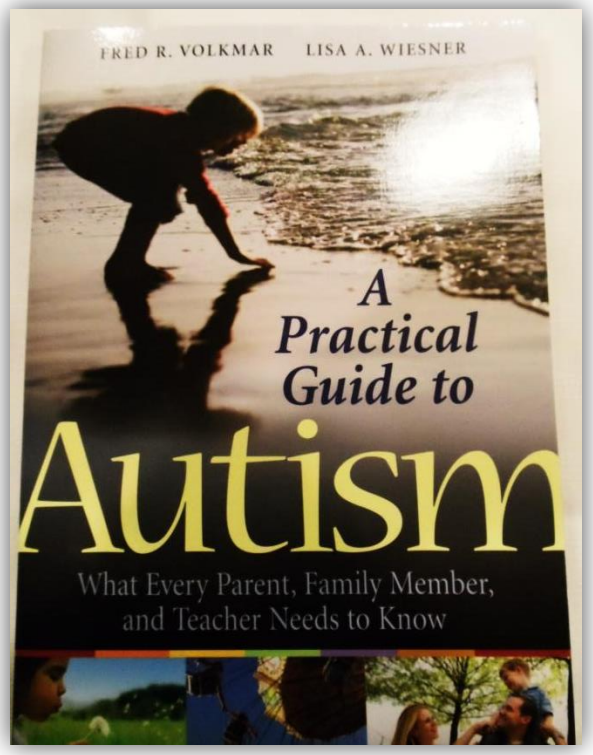
In Other Words…….

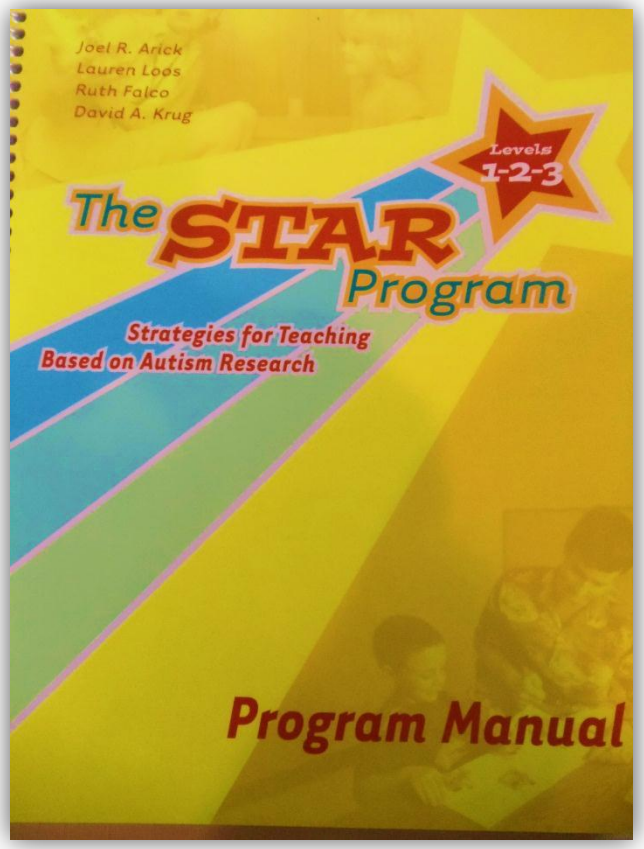
Routines: Snack, Circle, Transition, Centers, Small Group…….

Pre-teaching	During Routine Teaching	Environmental Supports
Skill Acquisition: • DT • PRT • Communication Systems ↑ ***TARGET STUDENTS***	During routine instruction should include: •Prompting/fading strategies •Reinforcement strategies •Data collection to guide instruction ↗ ***ALL STUDENTS***	Provide supports throughout the routine: •Environment (room arrangement) •Tasks (task strips) •Time (visual schedules)

Additional Information/Research related to the STAR Program

"A Practical Guide to Autism"
By Volkmar & Wiesner. Wiley Press, 2009.



Recommends the STAR Program as an effective school program.

For Further Information: