OrPATS

Oregon Program Autism Training Sites and Support

Implementation of a District-wide Comprehensive Program for Students with Autism: Focus on Staff Training Through the OrPATS Project

www.orpats.org

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OrPATS:
Oregon Program Autism Training Sites and Support

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Parent Training Project:

- Brenda Nakada

General Education-HFA Project

- Lauren Loos, M.S and Sheila Magee, M.S.

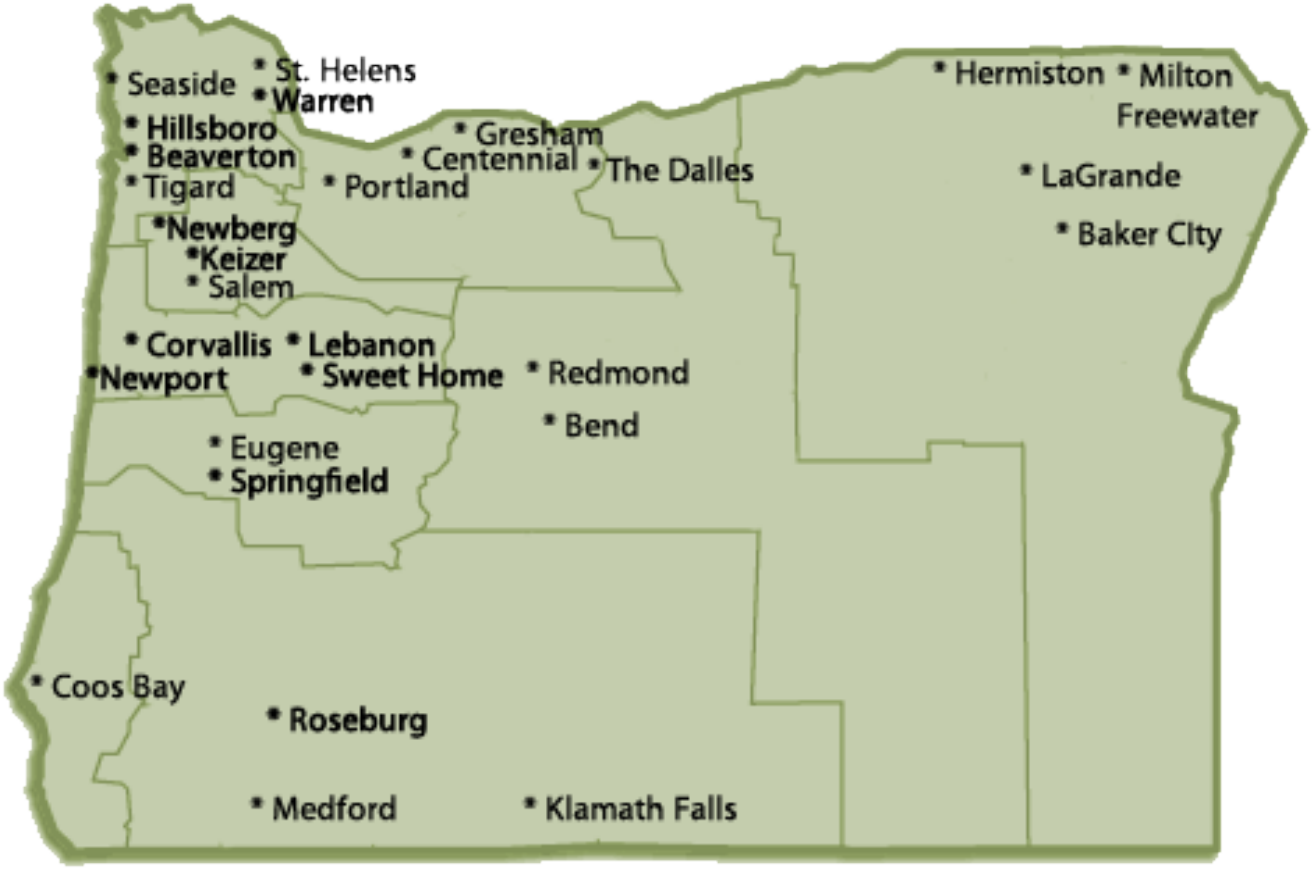
STAR Autism Support, Northwest Regional ESD and the Oregon Department of Education Collaborate to administrate this project.

What is the Current OrPATS Project?

- OrPATS Staff are providing comprehensive workshops and extensive on-site “hands-on” training in evidence-based instructional strategies to training site staff and autism specialists
- OrPATS Training Sites model appropriate curriculum content using behavioral methods and provide training on these evidence-based practices
- Trained Autism Specialists/Consultants provide hands-on training to other educators in their region at the training sites

ORPATS

Oregon Program Autism Training Sites and Support



OrPATS
A Training Network

- Established 42 Oregon Program Autism Training Sites and Suport (OrPATS) throughout the state.
- Training sites model evidence-based applied behavior analysis methods and implementation of research-based curricula.
- Established a cadre of autism specialists/consultants to provide training to others at the OrPATS sites
- Maintain current sites and continue to develop new training sites throughout Oregon
- Collaborated with the Autism Teams Project to provide training to 25 Teams throughout Oregon

OrPATS Highlights: 2011-2013

- 700+ Teams attended an OrPATS workshop
- 200+ Teams have accessed an ORPATS site for "on-site, hands-on" training
- 350+ Students were in attendance at the ORPATS sites receiving services
- Since 2003 over 80% of the OrPATS sites established continue to train others
- Began development of an on-line resource for General Educators

OrPATS Sites and Supports 2013-2015

MAJOR GOALS

Collaborate with Regional ASD Programs and Autism Specialists to implement the Oregon State-wide plan for ASD

Implement components of the Oregon Autism Commission Report

Broaden the support provided by the OrPATS Project to include all students with ASD across all developmental levels and all age levels

Maintain the existing 42 OrPATS Training Sites and Develop new sites as needed

Deliverables for 2013-2015
(for more information go to www.orpats.org)

1. Coordinate with others to Implement the Oregon ASD State-wide Plan
2. Conduct on-going student outcome data
3. Focus on implementation of the recommendations of the OR ASD Commission
4. Develop and implement a web-based version of the ASD Program Self-Assessment
5. Continued development and maintenance of training sites.
6. Conduct training workshops in each regions
7. Follow-up support provided through webinars and on-line trainings
8. Provide training resources based on the ASD self-assessment

Deliverables for 2013-2015
(for more information go to www.orpats.org)

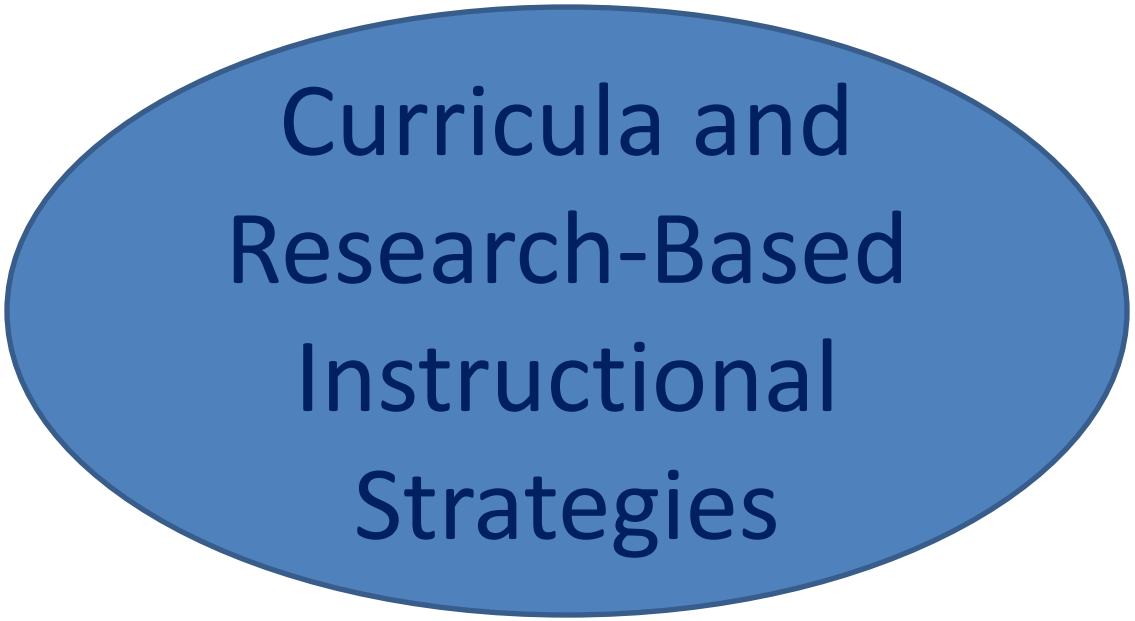
9. Expand the number of teams implementing evidence-based practices.

10. Support general education teachers serving students with ASD.

11. Pilot a process to establish school-wide teams supporting students with ASD.

12. Pilot a process to establish post-secondary transition teams as model sites.

OrPATS



Curriculum for EI/ECSE and Elementary Level Children

- Focus on:
  - communication, understanding language and social skills
  - Generalizing skills learned within functional routines at home and school
  - Staff training to implement developmental curricula across all domains
- Including:
  - STAR Program (Strategies for Teaching based-on Autism Research, Arick, Loos, Falco and Krug, 2004)
  - Parent training component at the EI/ECSE sites (Ingersoll and Dvortscak, Guilford Press, 2009)
  - Inclusion and mainstreaming
  - Peer tutoring and peer buddies
  - PECS (Pyramid Educational Consultants, 2005)
  - Augmentative Communication Systems
  - Structured Teaching
  - Incidental Teaching
  - Commercial academic programs

Curriculum for Middle and High School Students

- Independence is key
- School and Community Routines become more of a focus
- Social Skill Development is also a priority
- Continue to use ABA strategies to teach specific skills needed for independence on routines
- Generalize skills within routines
- FACTER Program (Arick, Nave, Hoffman, 2004)
- LINKS Curriculum (Arick, Hoffman and Magee-Arick, 2012)
- Adjusting the Image Curriculum (WESD, Columbia Regional Program)

Essential Elements of Support Needed for Students with Autism

Student schedule

- Each activity of the day identified for the student
- Activities of the class consistent with the schedule
- Pictures/words at students developmental level

Staff schedule

- Staff is scheduled to support student as needed
- Direct instruction time is provided in order to implement curriculum

Staff training

- Staff is trained to implement the student schedule
- Staff is trained in appropriate shaping/prompting/reinforcement techniques
- Staff is trained to implement the curriculum and adapt activities

Additional Elements of Support

- Classroom activities should be adapted to meet the students need
- A reinforcement system should be available as needed to motivate and reward student for appropriate behavior
- A curriculum appropriate for the student's level should be implemented consistently

Research Indicates:

Provide 1:1 intensive instruction in the following content areas:

- Expressive language
- Receptive language
- Spontaneous Communication
- Pre-academics
- Play skills/Social Interaction and
- Pre-Teach Functional routines

THEN

Generalize the skills taught into the child's school day and at home

Research Also Indicates:

Applied Behavioral Analysis (ABA) is one of the most effective teaching strategies

- Discrete Trial Training
- Pivotal Response Training
- Functional Routines

Source: Simpson, R. Focus on Autism and Other Developmental Disabilities, Fall 2005

Video Examples

- Discrete Trial Training
  - Level I: Labels of Objects
- Pivotal Response Training
  - Level II: Commenting
- Functional Routines
  - Level III: Transition

The STAR Program
Strategies for Teaching based on Autism Research
(Arick, Loos, Falco and Krug, 2004)

Instructional methods of:

- Discrete Trial Training
- Pivotal Response Training
- Functional Routines
- Positive Behavior

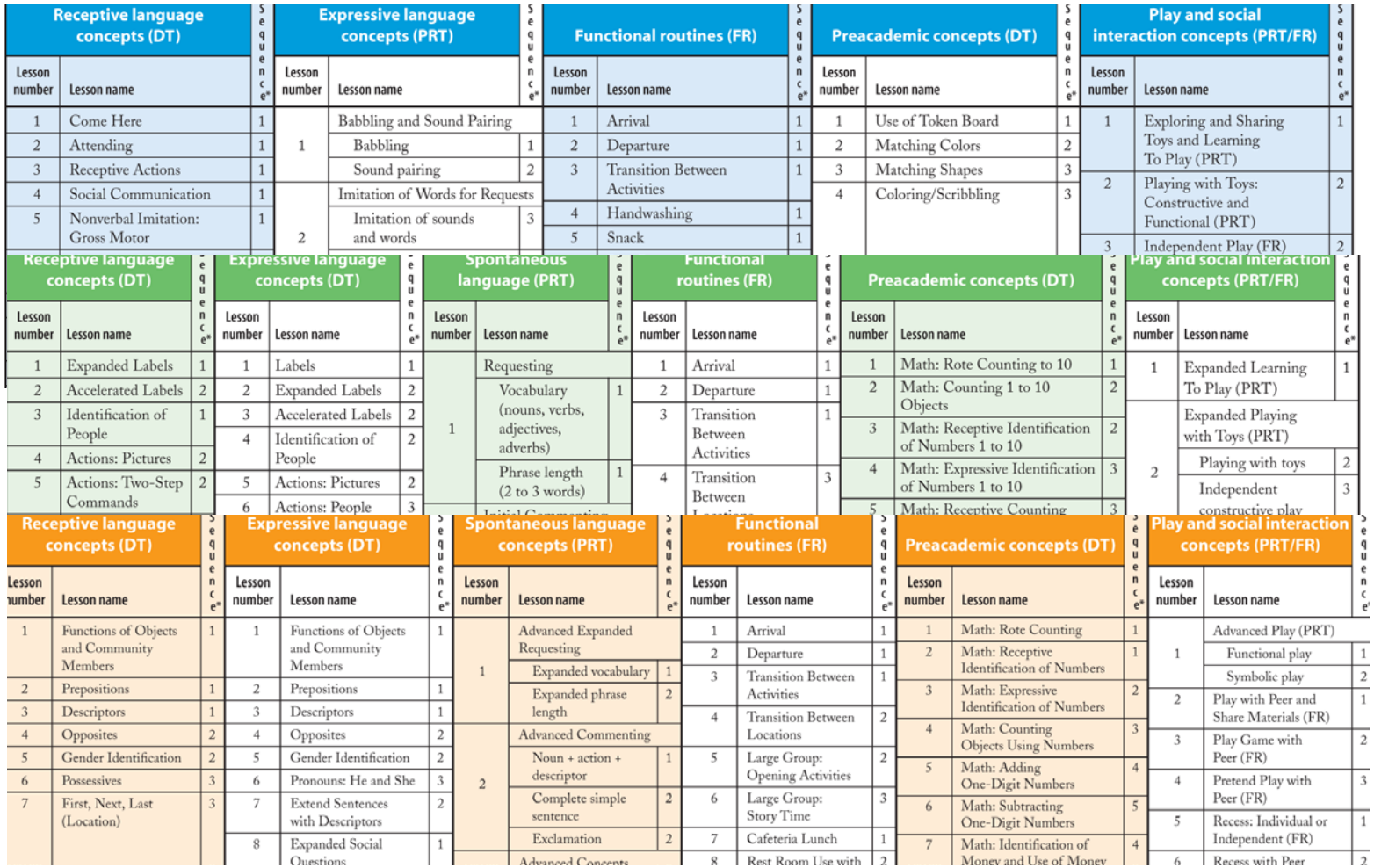
  Interventions and Supports

These strategies form the instructional base of this comprehensive program for children with autism.

Student Learning Profile: A Curriculum-based Assessment

- Shows the overall scope and sequence for the a research based Program
- Provide guidelines for determining which lesson to focus on for each student
- Shows instructional strategies that are most effective for lesson
- Shows which lessons can be taught simultaneously
- **Establishes baseline and summarizes student's instructional progression**

Student Learning Profile (Levels 1,2,3)



Receptive language concepts (DT)		Sequence*
Lesson number	Lesson name	
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)			Sequence*
Lesson number	Lesson name		
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)		Sequence*
Lesson number	Lesson name	
1	Arrival	1
2	Departure	1
3	Transition Between Activities	1
4	Handwashing	1
5	Snack	1

Preacademic concepts (DT)		Sequence*
Lesson number	Lesson name	
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)		Sequence*
Lesson number	Lesson name	
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)		Sequence*
Lesson number	Lesson name	
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)		Sequence*
Lesson number	Lesson name	
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)			Sequence*
Lesson number	Lesson name		
1	Requesting		
	Vocabulary (nouns, verbs, adjectives, adverbs)	1	
	Phrase length (2 to 3 words)	1	

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

Preacademic concepts (DT)		Sequence*
Lesson number	Lesson name	
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)		Sequence*
Lesson number	Lesson name	
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)		Sequence*
Lesson number	Lesson name	
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)		Sequence*
Lesson number	Lesson name	
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

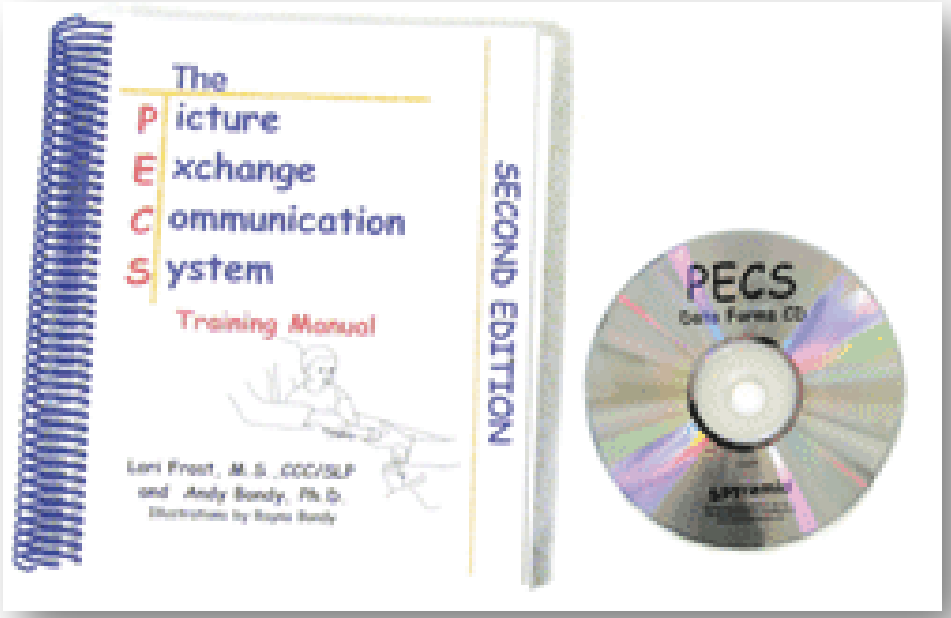
Spontaneous language concepts (PRT)			Sequence*
Lesson number	Lesson name		
1	Advanced Expanded Requesting		
	Expanded vocabulary	1	
	Expanded phrase length	2	
2	Advanced Commenting		
	Noun + action + descriptor	1	
	Complete simple sentence	2	
	Exclamation	2	

Functional routines (FR)		Sequence*
Lesson number	Lesson name	
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)		Sequence*
Lesson number	Lesson name	
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)		Sequence*
Lesson number	Lesson name	
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

PECS
Picture Exchange Communication System



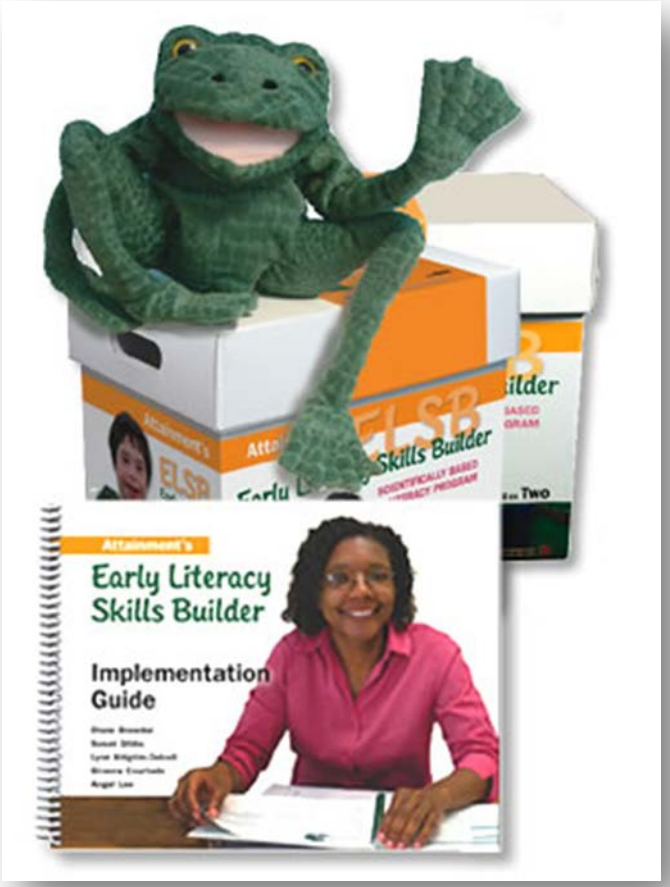
(Frost and Bondy, 1994)

PECS

- Augmentative/alternative communication intervention package for individuals with autism spectrum disorder
- Focuses on the initiation component of communication
- Begins by teaching an individual to give a picture of a desired item to a “communicative partner", who immediately honors the exchange as a request.
- The system goes on to teach discrimination of pictures and how to put them together in sentences. In the more advanced phases, individuals are taught to answer questions and to comment.

Early Literacy Skill Builders (Attainment Company)

- Language-rich literacy curriculum for students with moderate to significant developmental disabilities, including autism.
- Systematic instruction to teach both print and phonemic awareness.



Edmark Reading Program

- Uses a whole-word approach, with short instructional steps, consistent repetition, and positive reinforcement to ensure that students experience immediate success.
- Multiple learning modalities are incorporated

Handwriting Without Tears

http://www.hwtears.com/

Touch Math

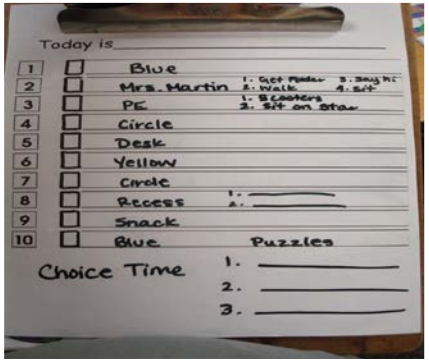
http://www.touchmath.com/

Structured TEACCH (University of North Carolina): Use of Independent Work Systems

Visual Supports: Schedules

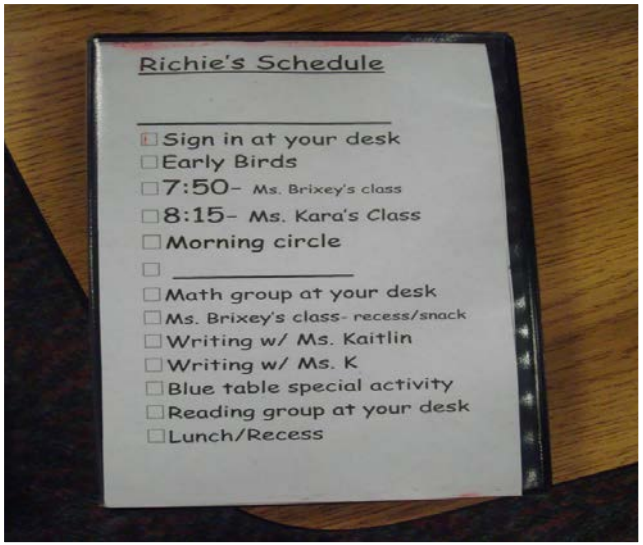
Simple book schedule

Simple wall schedule



Written Schedule

Visual Supports: Schedules



Portable schedule

Electronic Schedules

LINKS™ CURRICULUM

Assessment and Instruction for Secondary Students

(Arick, Hoffman and Magee-Arick, 2012)

Themes & Content of Instruction

- **Themes**
  - Independence
  - Self-Determination & Students' Strengths
  - Functional and Generalizable
  - Post-Secondary Transition
- **Content**
  - Expressive/Receptive Language
  - Academics in the Context of Daily Life Routines
  - Social Communication
  - Complex Vocational Tasks

(National Research Council, 2001; Snell & Brown, 2006; Wehmeyer, 1998)

Instructional Methods

- Principles of ABA
- Discrete Trial Training
- Variety of Settings
- Student Schedules
- Visual Supports
- Augmentative Communication
- Self-Management
- Reinforcement Systems

Context of Instruction

Success in School & Community Routines

SCHOOL

COMMUNITY

VOCATIONAL

Video Example:

Example Observed Routine Assessment (ORA) Form for the Purchasing an Item at the School Store Routine for Ron N.

Observed Routine Assessment
Ron N.
Purchasing an Item at the School Store
Cue Set Number: 1M

Links Independence Scoring Scale						1
4 Independent	3 Gesture, visual, or verbal prompt	2 Intermittent Physical	1 Continuous Physical	0 Does not complete with any form of prompting	N/A Not Applicable	

Observe Ron N. performing the Purchasing an Item at the School Store routine in the natural environment. Cue the student with the previously selected cues and score the student using the Links Independence Scoring Scale. When you are finished observing the student performing the routine, you may return to Links online and enter data for this routine. Use this data to identify steps for instruction and teach the corresponding lessons (bolded lessons are priority lessons).

#	Cue	Expected Behavior	Date: 4/20/12	Date:	Date:	Date:	Cue Level	Lesson
			Scores					
Finds Store								
1	Say "find the store"	Student identifies location of the store	3				B	**35**, 37, 39
2	The school store provides a natural cue	Student moves toward the store	4				D	**140**, 137, 138
3	The entrance to the school store provides a natural cue	Student enters the store	4				D	**140**, 138
Obtains Items								
4	The school store cashier says "What would you like?"	Student communicates item choice to appropriate person	3				D	**140**, 144
5	The location of the item provides a natural cue	Student moves toward correct item location in store	4				D	**140**, 138
6	The item provides a natural cue	Student physically obtains item	2				D	**140**, 137, 138
Pays for Merchandise								
7	The cash register provides a natural cue	Student moves toward cash register	4				D	**140**, 137, 138
8	Say "get _____ (form of payment)"	Student obtains correct amount of money (or debit/credit card) for item	3				B	**35**, 37, 39, 63
9	Say "give _____ (form of payment) to the cashier"	Student gives money (or debit/credit card) to cashier	2				B	**35**, 37, 39, 63
10	The change presented to the student provides a natural cue	Student obtains change	3				B	**140**, 137, 138
11	Ask "correct change?"	Student verifies the correct change is received	0				B	**53**, 37, 39, 63

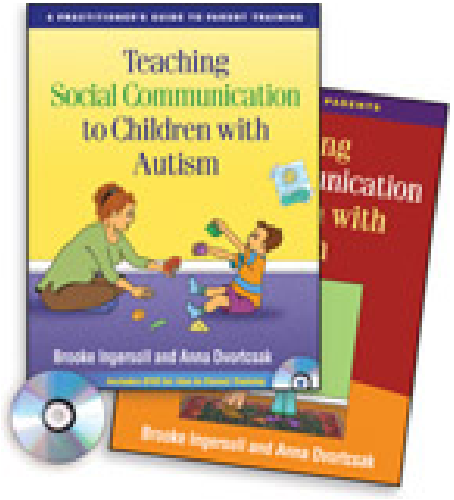
Parent Training Component

Strategies based on:

"Teaching Social Communication to Children with Autism"

By Brooke Ingersoll and Anna Dvortcsak

Published in 2010



Focus of Parent Training

1. Enhance parents' skills in engaging their child in play and social interaction

2. Teach parents strategies to help their child acquire developmental skills

3. Help parents manage child's behavior during ongoing daily routines

Intervention Techniques

Parents are taught techniques through:

- Written materials (Manual)
- Didactic presentation
- Video examples
- Group discussion of how techniques can be used during daily activities
- Homework

Intervention Strategies

- Developmental Techniques (Interactive)
  - Increase engagement
  - Increase initiations
  - Provide the child the opportunity to initiate and respond without having to do so in a specific way
- Behavioral Techniques (Direct)
  - Teach specific skills
    - Language, imitation or play

OrPATS Parent Education Model Across Oregon

State-wide

- Used in Early Childhood/Early Intervention Programs in all 8 regions of state
- Teams in each region present to parents 1-3 times each year (Groups range from 6-10 families)
- Most present in a group format to allow families to network together
- EI programs have also adapted to a home visit model

Coming Soon: New Project

On-line supports and resources for teachers serving ***students with ASD in***

general education classrooms

- On-line training modules
- On line visual supports, ideas and strategies
  - Practical easy-to-use ideas and templates
- Leaders guide for sped teacher/autism specialist to support general education teachers

Roll Out Process

- Pilot group
  - Graduate students will be doing a pre/post learning assessment of participants
- Roll out in OrPATS sites over the next two years

Student Outcomes

The Philadelphia AIMS Study

Randomized trial of STAR compared to control group

- 3 Year study of STAR
- Year 1 data:
  - 34 classrooms
  - Fidelity of implementation of STAR corresponded with greater gains in IQ
  - Greater gains than control group when implemented with high levels of fidelity
- Given progress of students, district adopted STAR Program for all K-3 autism classrooms
  - *(University of Pennsylvania Health System (2010) Simply Because: A Community Health Report, Project Director: Dr. David Mandell)*

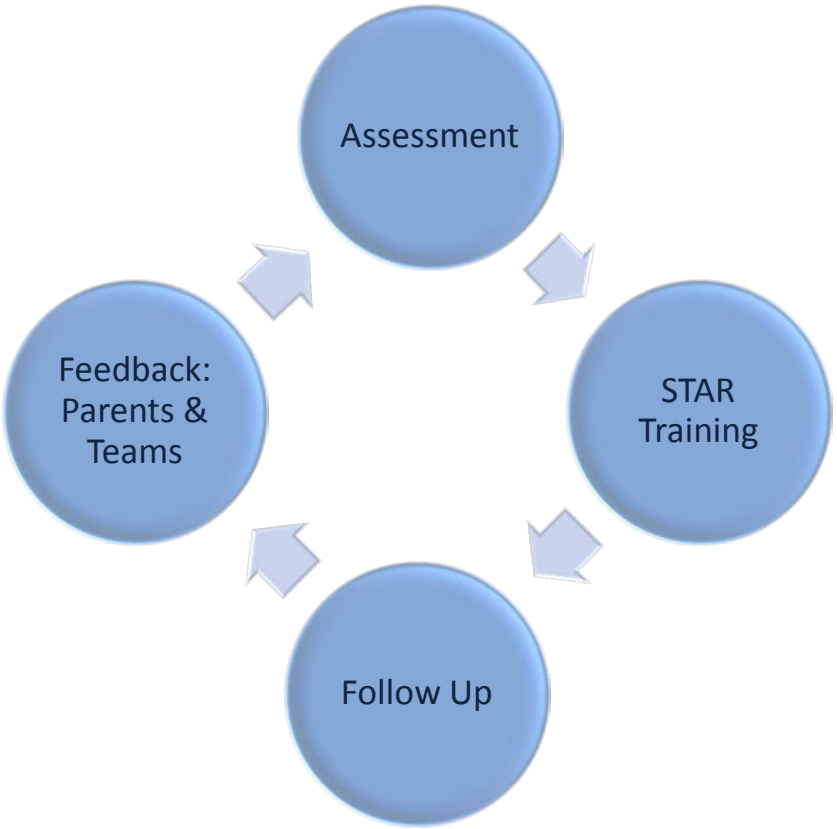
Autism Outcome Study

(Arick, Young, Falco, Krug, Loos, Gense, and Johnson 2004)

Participants:

- Oregon Department of Education
- Portland State University
- EI/ECSE, Regional Programs, School-age Programs
- Children with ASD
- Parents

Components:



Outcome Study Results Summary (Cohort 1 & 2)

- Most Students Improved In:
  - Expressive and Receptive Language
  - Social Interaction with an Adult
  - Independence on Routines
  - Pre-academic skills
  - Most parents indicated that their children improved in receptive and expressive language at home

Journal article published about Cohort #1: Arick, J., Young, H., Falco, R., Loos, L., Krug, D., Gense, M., & Johnson, S. (2003). Designing an outcome study to monitor the progress of students with autism spectrum disorder. *Focus on Autism and Other Developmental Disabilities*, 18, (2), 75-87.

Autism Spectrum Disorders Outcome Study and Training Project: Final Report. (Arick, Young, Falco, Krug, Loos, Gense and Johnson, 2004). Oregon Department of Education. Available at www.orpats.org.

Pre-school Age Non-verbal Students: Initial Progress Results: 2009-2011

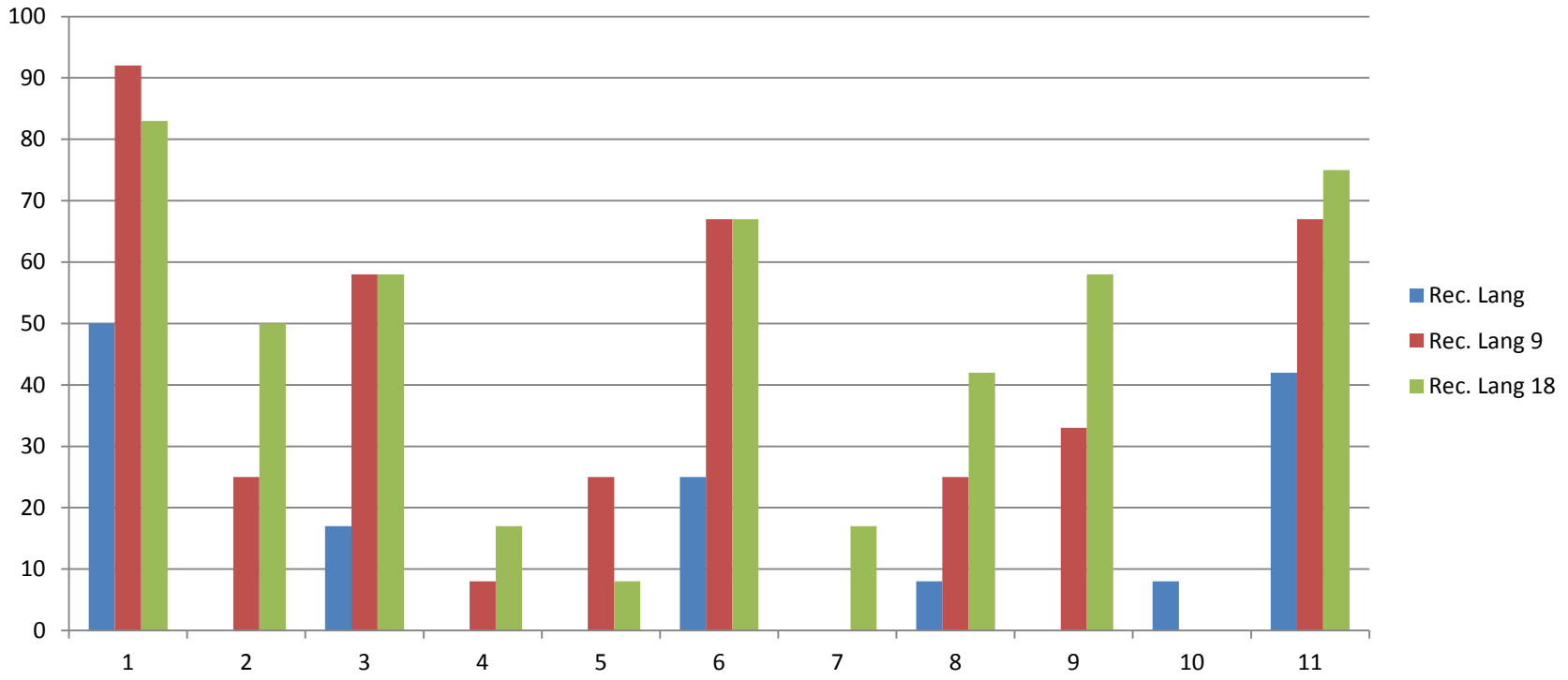
- Descriptive Study – 3 assessment periods
  - Initial assessment
  - 9 month re-assessment
  - 17 month re-assessment
- Assessments
  - ASIEP-3
  - Peabody Picture Vocabulary Test (PPVT)
  - Expressive Vocabulary Test (EVT-2)
- All students are primarily non-verbal at initial assessment period
- The data shown in this report
  - Educational Assessment (subtest of ASIEP-3)
  - Expressive Vocabulary Test (EVT-2)

Students

28 students enrolled in the study

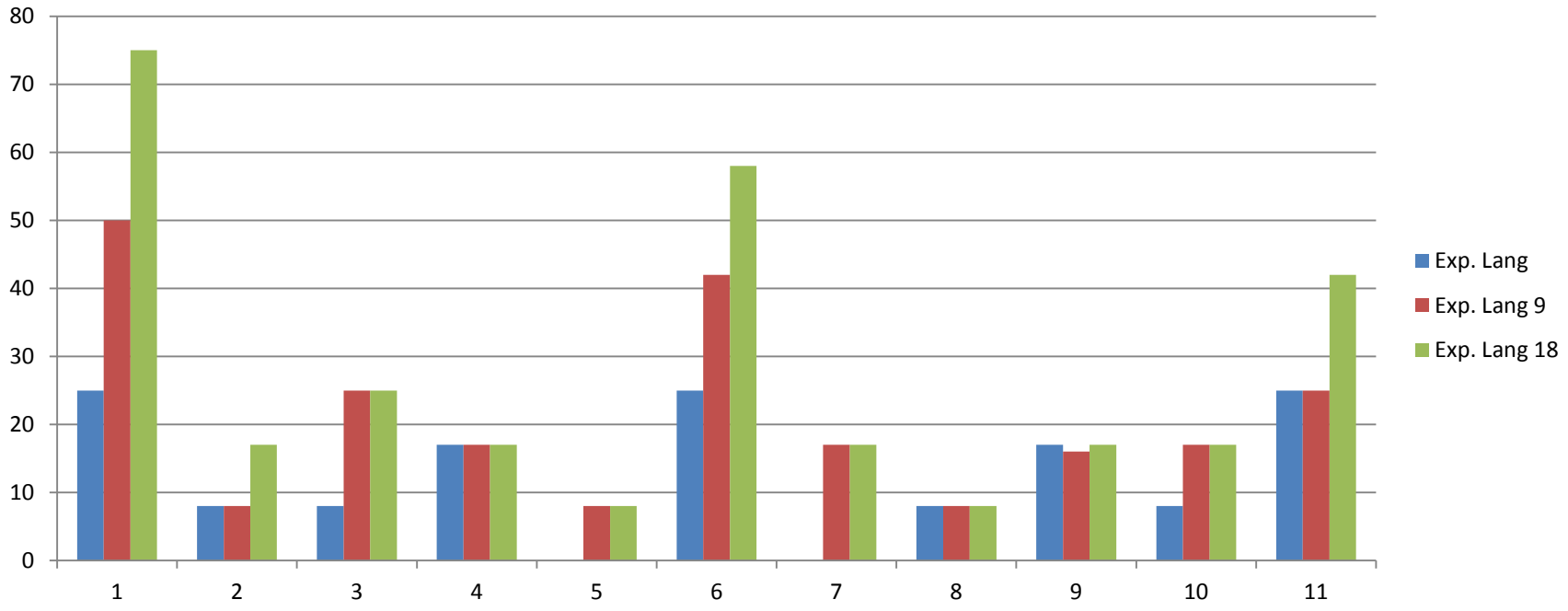
- Students were new to the curriculum components
- Students were primarily non-verbal
- Students received 4 days a week of Early Childhood Special Education services at an OrPATS training site.
- 11 students have data for the entire 17 month period (following slides report progress of these students).

Educational Assessment
Receptive Language



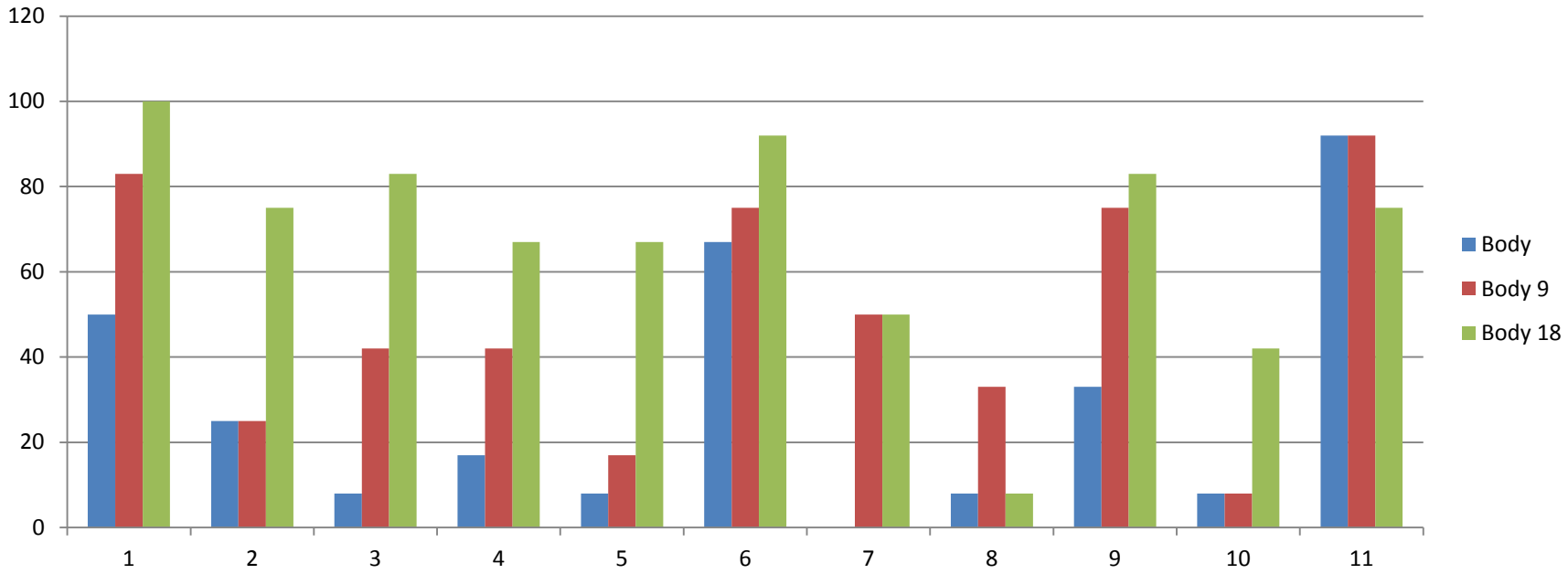
- Following 1 and 2 step commands
- 91% of students made progress from initial assessment to 17 month assessment

Expressive Language



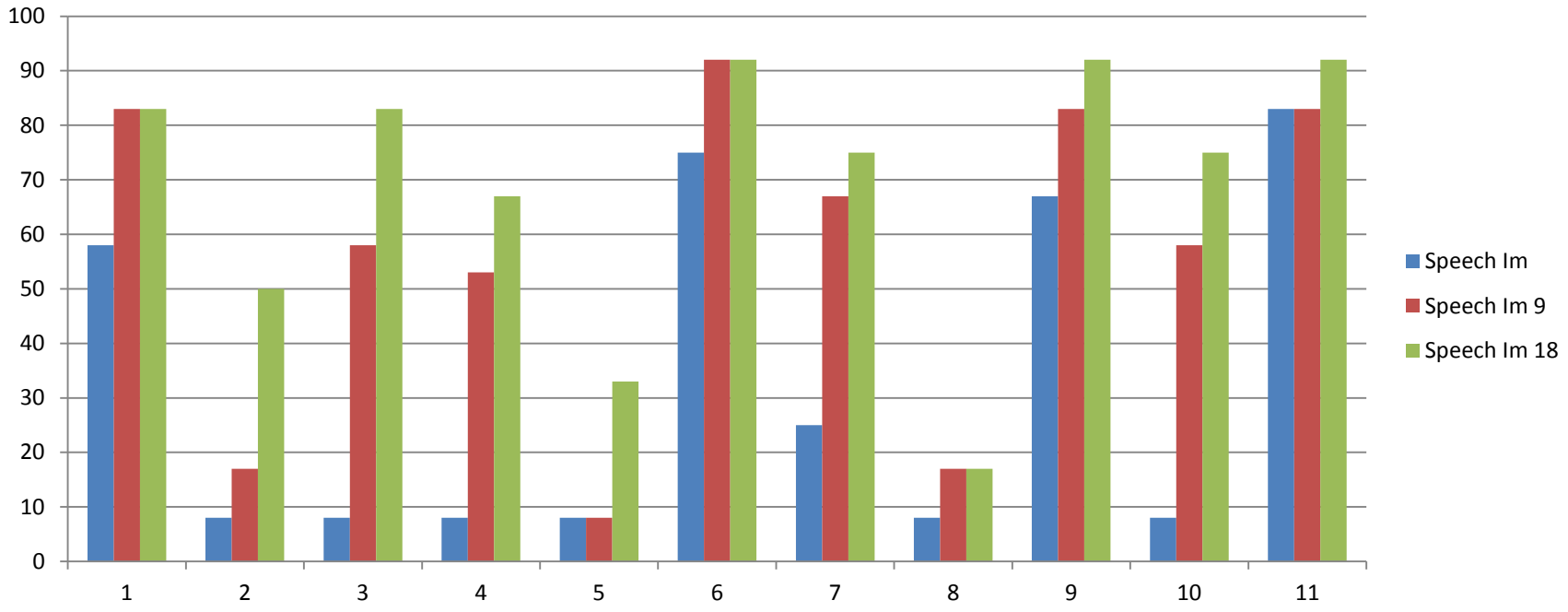
- Using words to answer questions
- 73% made progress

Body Concepts



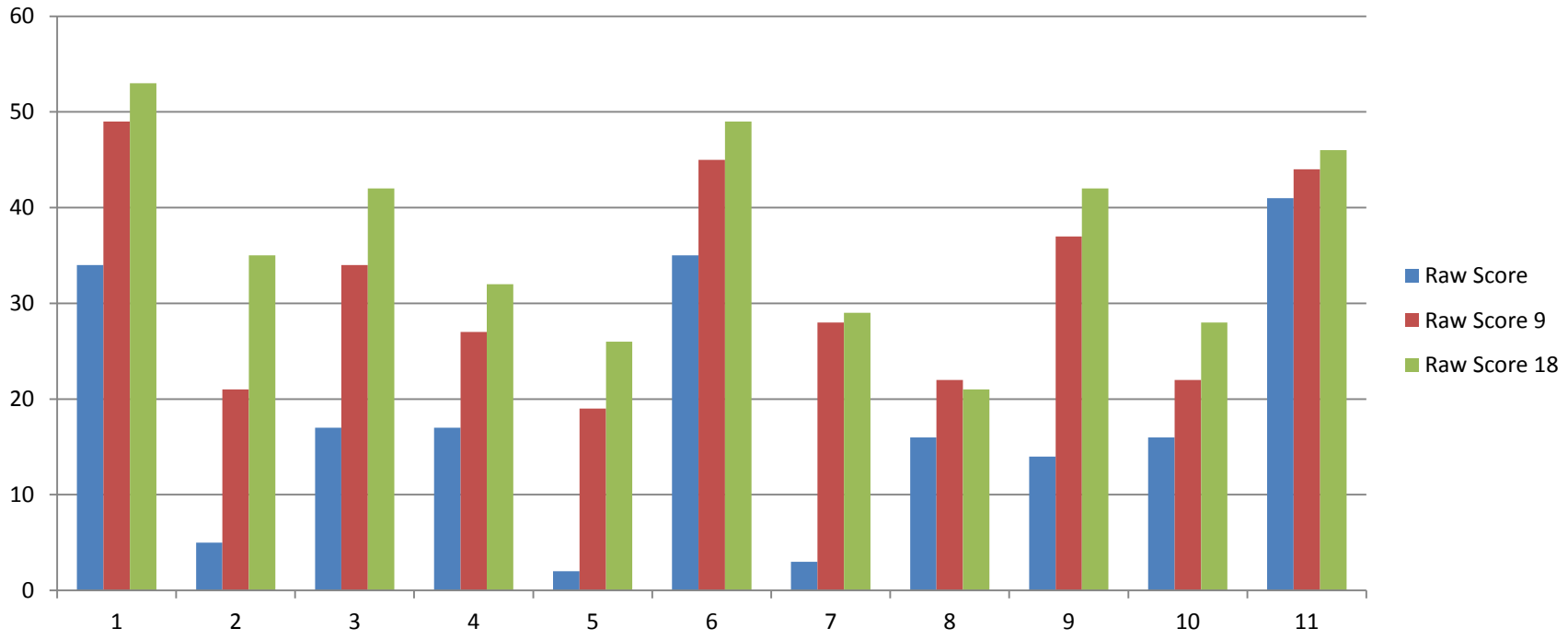
- Body Imitation
- 82% made progress

Speech Imitation



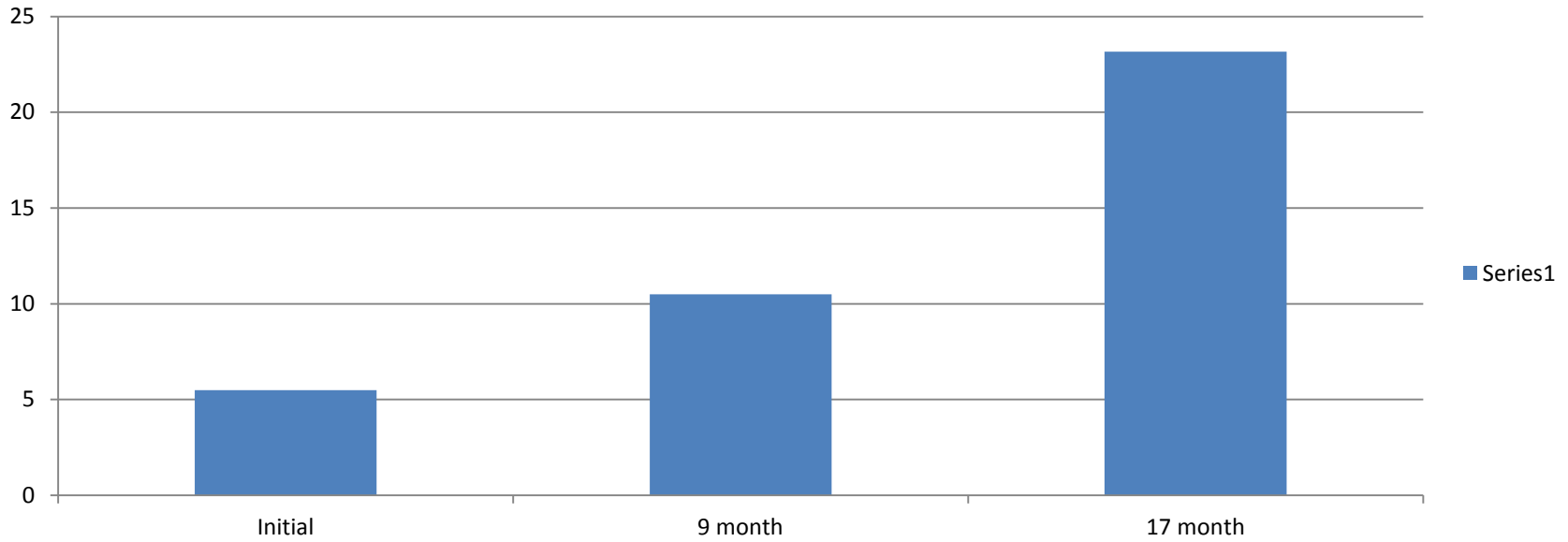
- Imitating sounds and words
- 100% made progress

Overall Scores



- Summary of all areas combined
- 100% of students made progress

Expressive Vocabulary Test (EVT-2)
Average Expressive Age Equivalent in Months



- Initial assessment average score was 5.5 months
- 9 month assessment average score was 10.5 months
- 17 month assessment average score was 23.17 months
- This represents 17.5 months of average progress in the 17 month period, or 1 month of language gain for each month of instruction

OrPATS Consumer Survey: Spring 2012

- ***Did you receive on-site support in your classroom?***
  - Yes 97.9%
  - No 2.1%

- ***Was the support helpful?***
  - Strongly Agree 77.8%
  - Agree 22.2%
  - Disagree 0%
  - Strongly Disagree 0%

- ***Given the level of support you received, were you able to implement some of the strategies suggested?***
  - Yes 95.6%
  - No 4.4%

The complete survey results are available at www.orpats.org

OrPATS Training Site Fidelity of Implementation Data: Spring 2012 (Average Rating of 42 Training Sites)

Fidelity Area	Teacher	Instructional Assistant	Autism Specialist
ABA Program Planning	2.90	2.75	2.94
Discrete Trial Training	2.91	2.80	2.92
Pivotal Response Area	2.77	2.62	2.85
Functional Routines	2.82	2.76	2.93
Classroom Environment	2.91	n/a	n/a
Student Programs	2.64	n/a	n/a
Overall Average	2.84	2.74	2.92

Key:
1.0= Needs help with this; 2.0= Can implement; 3.0 Proficient level
A rating of 2.5 or above is expected for ORPATS Training Sites

Fall 2013 Workshops

- August 15th & 16th Implementing Evidence-based Practices: Pre-school/Elementary (Portland)
- August 19th & 20th Implementing Evidence-based Practices: Pre-school/Elementary (Newport)
- September 13th Consistency of Implementation: Pre-school/Elementary (The Dalles)
- September 18th & 19th Implementing Evidence-based Practices: Pre-school/Elementary (Pendleton)
- September 20th Consistency of Implementation: Pre-school/Elementary (Pendleton)
- September 20th An Overview of Evidence Based Practices (PBIS Conference)
- October 16th Implementing Evidence-based Practices: Secondary/Post Secondary (Eugene)
- October 17th and 18th Implementing Evidence-based Practices: Pre-school/Elementary (Beaverton)
- November 7th & 8th Implementing Evidence-based Practices: Pre-school/Elementary (Eugene)

Additional workshops will be scheduled throughout the year. See www.orpats.org for further information.

How To Obtain Training For Your District

- **Access** OrPATS training by contacting your Regional Autism Coordinator or District Autism Specialist
- **Release funds** are available for OrPATS training activities
- **Workshops** are offered through the OrPATS grant. All districts are welcome to the workshops. Workshops are scheduled throughout the year as needed. The training schedule is updated regularly and information is available on the OrPATS website.
- **Autism Teams Component** is on-going throughout the 2013 school year. Contact your Regional Autism Coordinator if interested in participating.

www.orpats.org