

Translation of the Early Achievements Intervention for Implementation in Public Pre-K Classrooms with Children with ASD

Presented by Dr. Rebecca Landa



**Early Intervention/Early Childhood Special Interest Group
(EIEC SIG)
Webinar Series
September 22, 2015**

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Dr. Rebecca Landa is the founder and director of the Kennedy Krieger Institute's Center for Autism and Related Disorders. She is a professor in the department of Psychiatry and Behavioral Sciences at the Johns Hopkins School of Medicine. Dr. Landa is a speech-language pathologist who completed her postdoctoral training in psychiatric genetics and developmental neuropsychology at Johns Hopkins School of Medicine. Her research and clinical care has focused on autism spectrum disorders (ASD) across the lifespan. Dr. Landa has pursued novel approaches to improving outcomes for children with ASD. She pioneered the prospective study of developmental processes in ASD using the high-risk infant sibling design. She has taken a public health approach to the early detection of ASD. As part of her early detection efforts, she developed a web-based tutorial focused on the early signs of ASD risk for the American Academy of Pediatrics and a novel web-based ASD risk screener. Her research on early learning processes in ASD has led to the development of innovative early interventions for children showing signs of risk for ASD and children diagnosed with ASD. Using an implementation science approach, Dr. Landa is studying the efficacy of these intervention approaches in community-based settings.

Translation of the Early Achievements Intervention for Implementation in Public Pre-K Classrooms with Children with ASD

AUCD EI Webinar, September 22, 2015

Rebecca Landa, Ph.D., CCC-SLP



Center for Autism and Related Disorders
at Kennedy Krieger Institute

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In this webinar:

- Overview of Early Achievements
- The school context for preschoolers with ASD
- Translation process
 - Major goals
 - Iterative development process
 - The resulting intervention
 - Preliminary RCT data on children and teachers
- Challenges for investigators





Overview of Early Achievements: EA



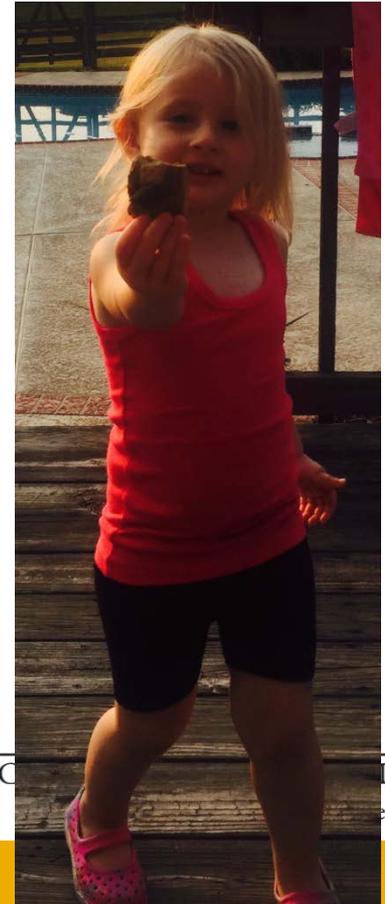
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Early ASD learning challenges

- Language, concept development, representational thought
- Meaning-related emergent literacy
- Engagement, especially social
- Social reciprocity
- Imitation
- Joint attention
- Social initiation

TD 21 months
Spontaneous
Showing



Early Achievements: Targeting meaning construction



Object exploration -
knowledge



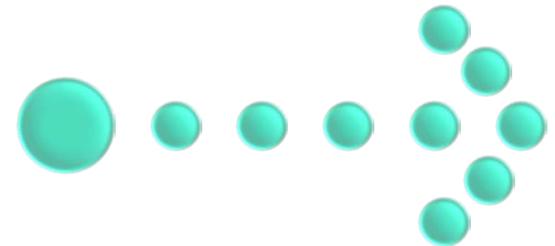
Social interaction -
knowledge



Experience with routines
– event representation



Cognition, language, literacy, social



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Early Achievements Intervention components

- Interpersonal synchrony, communication, cognitive development scope and sequence of instruction
- NDBIs (Schreibman et al., 2015; JADD)
- Meaning-enhancement strategies
- Professional development program



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Early Achievements Intervention components

- Interpersonal synchrony, communication, cognitive development scope and sequence of instruction



Initiating Joint Attention; Vocabulary & Concepts; Reciprocity



Imitation – Relevant concept & gesture





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Early Achievements Intervention components

- NDBI strategies (Schreibman et al., 2015; JADD)
 - Clear and appropriate cues
 - Incorporating child interests
 - Natural reinforcers
 - Prompt hierarchy (including modeling and pausing)
 - Communicative temptations
 - Balanced turns
 - Contingent responses and expansions



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Novel elements

- Emphasis on meaning construction and how the intervention is woven across instructional activities
- Classroom-based
- Emphasis on peer-to-peer interaction
- Social communication focus
- Meaning-related emergent literacy focus
- Meaning-enhancement strategies
- Teacher implementation supports





Children, Parents, Schools

- A complex dynamic





Parents' hopes





Parents' hopes





They count on, and believe, that their child will receive

- Evidence-based education
- From well-trained teachers
- With the proper educational materials
- Goals tailored to their child's learning needs
- Caring and supportive classroom climate
- Coherence



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Yet

- The challenges exist



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The school context for preschoolers with ASD

- Classrooms- emphasis on inclusion
 - Class sizes range from small to large
 - Peer characteristics vary (mix of DD, ELL, TD, high risk)
- Teacher training
- Classroom supports (other adults)
- How therapies are delivered (push in, pull out, group, 1:1)
- School administration knowledge of DD, ASD
- Curricula used, frequency with which this changes



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Teacher face constraints

- Curriculum often inappropriate for children with ASD
- Pre-service training – insufficient information about ASD
- Trainings on ASD-related interventions are ‘workshops’ with no coaching
- Supervisors’ working knowledge of ASD intervention and actual classroom teaching with ASD students
- Assistants must leave when children do – impacts communication and planning



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Teacher stress

- Teachers of children with DD experience high levels of stress (Fore et al., 2002; Miller et al., 1999)
- Unmanageable workloads (Morvant et al., 1995)
- Role ambiguity (Billingsley & Cross, 1992)
- Excessive paperwork (Paperwork in Special Education, 2002)
- Lack of resources (Miller et al., 1999)
- ...Attrition (Billingsley, 2004)
- Children with ASD may present even greater challenges for teachers, and may require greater parent-teacher communication (Dymond et al., 2007)



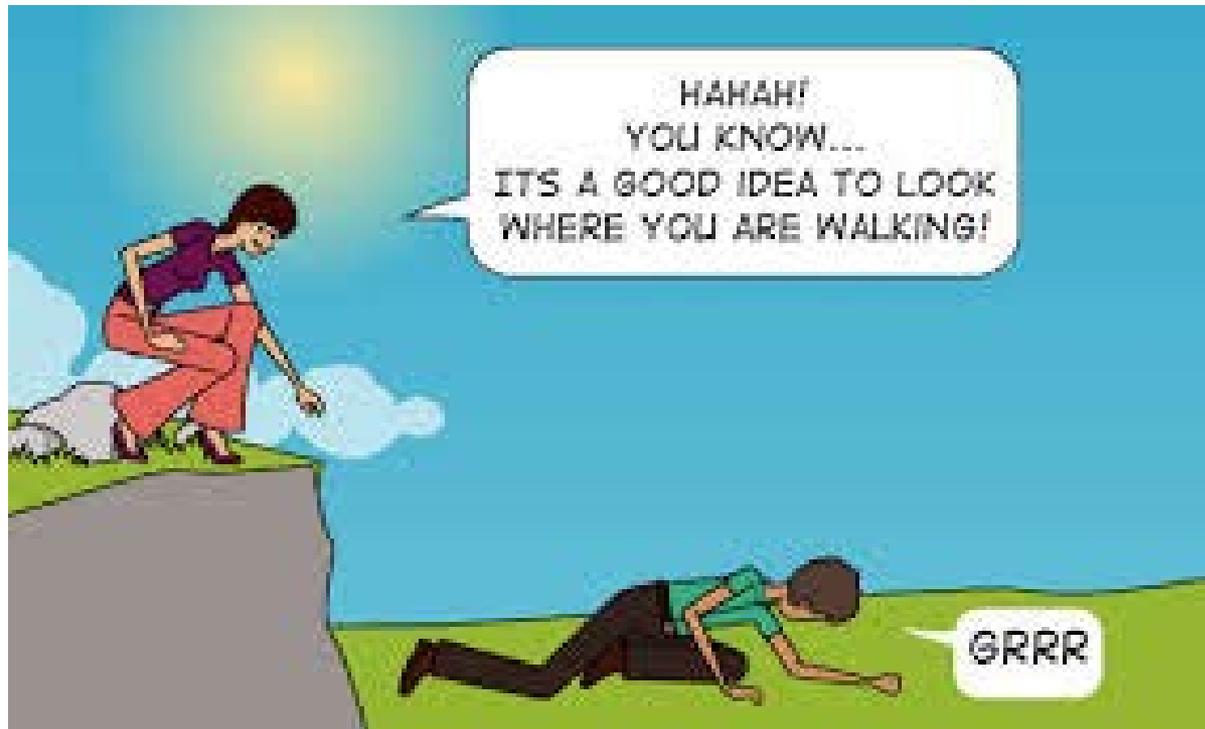


Preparing to Translate an Intervention





Know what you are walking into



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Prepare for success

- In conceptualizing the role of the intervention in the classroom
- In thinking about feasibility
- In planning how to access schools and school buy-in
- In thinking about how to train teachers
- In planning measures (child, teacher)



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Conceptualizing the role of the intervention

- With intervention/educational strategies and curricula that are
 - Feasible to implement
 - Affordable
 - Improve child engagement
 - Improve child outcomes
 - Designed to promote high levels of teacher fidelity of implementation
- Reduces ambiguity, provides professional learning community (social supports), supports decision-making, increases sense of control and competence



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Feasibility of the EA intervention

- Supplemental to existing school curriculum
- Clear roles for teachers and IAs
- Use existing materials
- Can be implemented in group settings
- With diverse set of learners
- Uses skills that most teachers already have

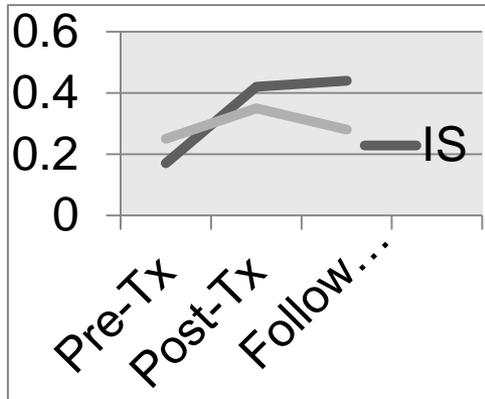




Early Achievements: Fosters engagement

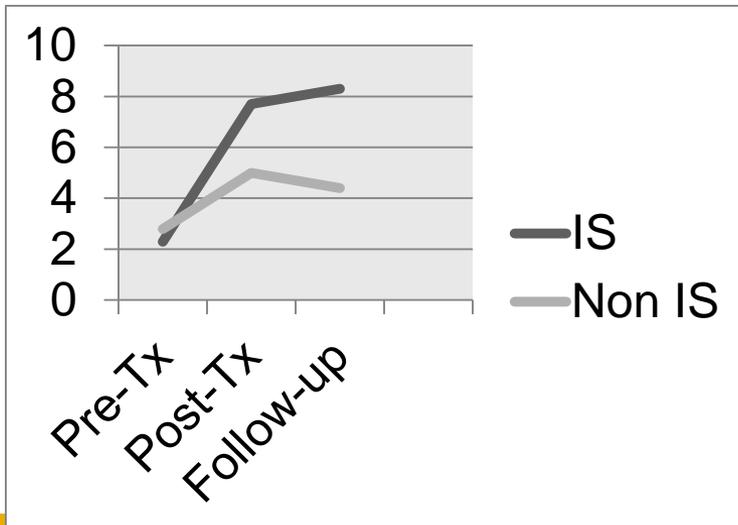
Landa et al., 2011

Socially Engaged Imitation



Socially Engaged Imitation more than doubled in the IS group $p=0.01$; $d=0.86$

Initiation of Joint Attention



Trend toward significance $p=.07$ $d=1.56$

For all measures growth over time was sig on all variables in IS group; EL only in non-IS group,



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Iterative development of EA for Public Pre-K classrooms

- Simplified the intervention
- Looked carefully at schools' curriculum
- Integrated Common Core State Standards
- Created PD (iterative, feedback from teachers, IAs, Administrators, Supervisors, etc)
- Sought feedback (ongoing)
- Focus groups (with our trained teachers, other professionals, administrators/supervisors)



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Changes we made

- Training teachers in implementing tx in play
- Training teachers in the entire PRT intervention
- How we trained teachers to teach imitation
- How we talked about the tx components
- Amount of hands-on activities during PD workshops
- Amount of content in PD workshops





Teachers' perspectives

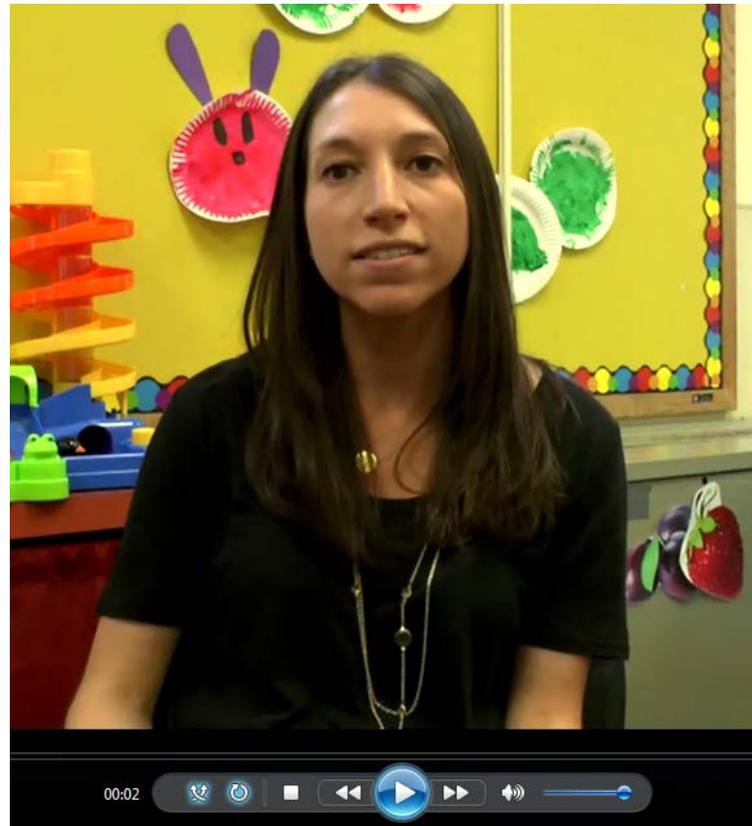
- Sought all the time
- Videos of some perspectives





Video 1

- Teacher thoughts on the EA model





Video 2

- About the ‘feel’ and benefit of the Shared Book Reading activity/strategies



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Our process for accessing schools and getting school buy-in

- Assistant superintendent of special education at the state level
- Special education leadership at the jurisdiction level
- School-based leadership level
- Teachers, Instructional Assistants
- Parents



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Training coaches

- Learned to administer the intervention to fidelity
- Trained in the PD workshops
- Coached by intervention developer (Landa) during in vivo coaching contexts



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Training teachers

- Focus on putative active ingredients essential for improving child outcome
- Care taken to avoid ‘jargon’
- Heavy use of video examples of target skills and instructional strategies
- Linking intervention ingredients to teachers’ experiences and priorities for students
- Frequent discussions for teacher feedback and reflection
- Frequent practice activities in workshops
- Coaching in classrooms with feedback



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Video 3

- Reaction to being coached – a shift



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Video 4

- Perceived benefits of the coaching process (coaching sessions)



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Video 5

- A collateral benefit: Teacher-IA communication, teacher empowerment of IAs, classroom staff collaboration



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Development of fidelity system

- Original fidelity system too long, complex, and time consuming
- 0-2 point scoring system
- Operational definitions
- Piloted by seasoned EA interventionists
- Changed based on feedback of coders





Video 6

- Sustainability





Preliminary findings



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Challenges for investigators

- Accessing schools – principals
- RCT- teachers in ‘untrained condition’
- Teacher buy-in
- Testing in the schools
- Valid and sensitive measurement of child change
- Measurement of coaching fidelity
- Measuring classroom characteristics/teaching at start and end of school year





The fulfillment

- Kids engage and learn
- Teachers' confidence
- IA empowerment
- Partnerships
- Bidirectional influences
- Advancing the field
- On to the next challenge!





Questions, thought?



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THANK YOU!!!

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Families and professionals who participated in the study and

And our Research Staff

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- **EIEC SIG Website:** <http://www.aucd.org/eiec>

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Questions about the Webinar?

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