## Rethink Autism:

*"Web-based Educational Treatment Solutions for Autism Assessment, Training, Curriculum & Data Tracking"* 



Superheroes Social Skills Training, Rethink Autism Internet Intervention, Parent Training, Evidence-based Practices Classroom Training, Functional Behavior Assessment: An Autism Spectrum Disorder, Evidence-based Practices Training Track for School Psychologists

> US Office of Education 84.325K H325K12306

Drs. W.R. Jenson, E.L. Clark, & J. Hood

# Presentation Overview

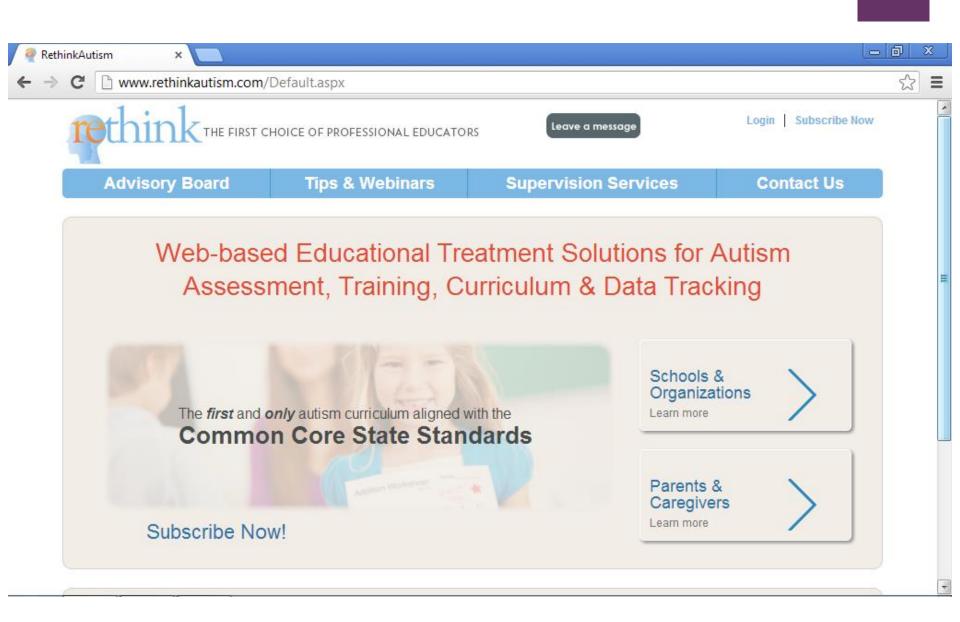
- What is Rethink Autism?
- Implementation
- Evaluation
- Tutorial
- Rethink at the University of Utah



## Disclaimer



All content herein depicting or describing Rethink Autism ®, the Rethink Autism website, or the Rethink Autism program, either in full or as a component of Rethink Autism, is copyright protected. The purpose of the current use of this content is educational in nature and not intended for any treatment or diagnostic purposes. With the exception of direct quotes, the content of this presentation has been constructed in the opinions of the author, Joseph Viskochil, and has been neither reviewed nor endorsed by Rethink Autism. Any persons using the content of this presentation beyond educational pursuits may be subject to legal action.



## **Rethink Autism: Mission**

"Offering parents and professionals immediate access to effective and affordable Applied Behavior Analysis-based treatment tools for the growing population affected by autism spectrum disorder."

## **Rethink Autism: Goals**

"To improve access to effective, affordable treatment by providing parents and teachers with a state-of-the-art, easy-to-follow, webbased curriculum and proven teaching tools."



## **Rethink Autism: Beliefs**

- Everyone should have access to effective intervention.
- Every parent and teacher can make a difference.
- Every child can learn.
- Interventions based on applied behavior analysis are the most effective.

### **Rethink Features: About Autism**

Glossary

Early signs

÷

Treatment

Schools and SPED

Getting diagnosed

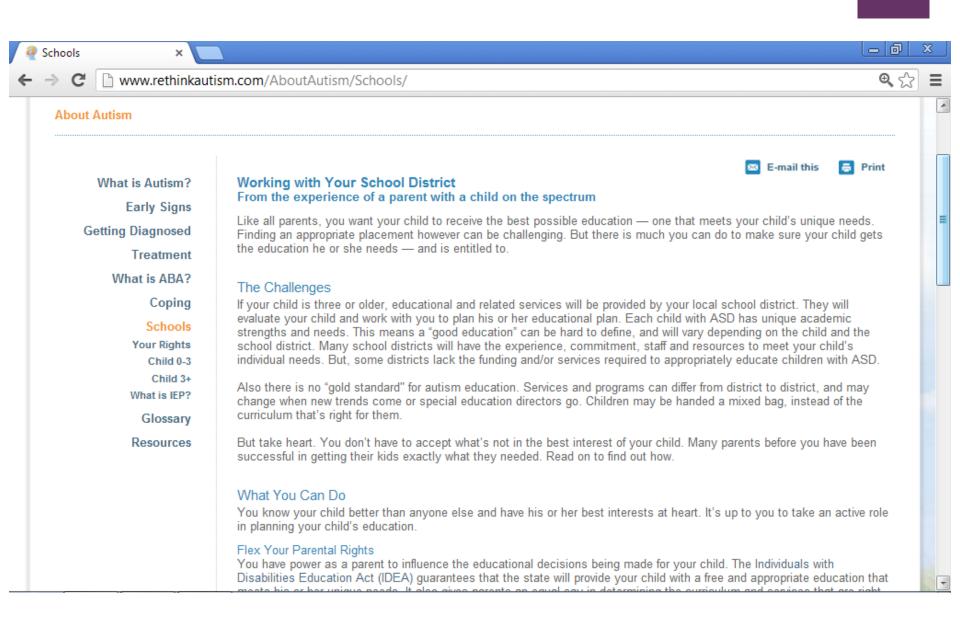
Coping

CDC reports

What is ABA?

What is autism?

Resources



### **Rethink Features: About Us**

Why rethink autism?

Who we are

÷

Pricing

How it works

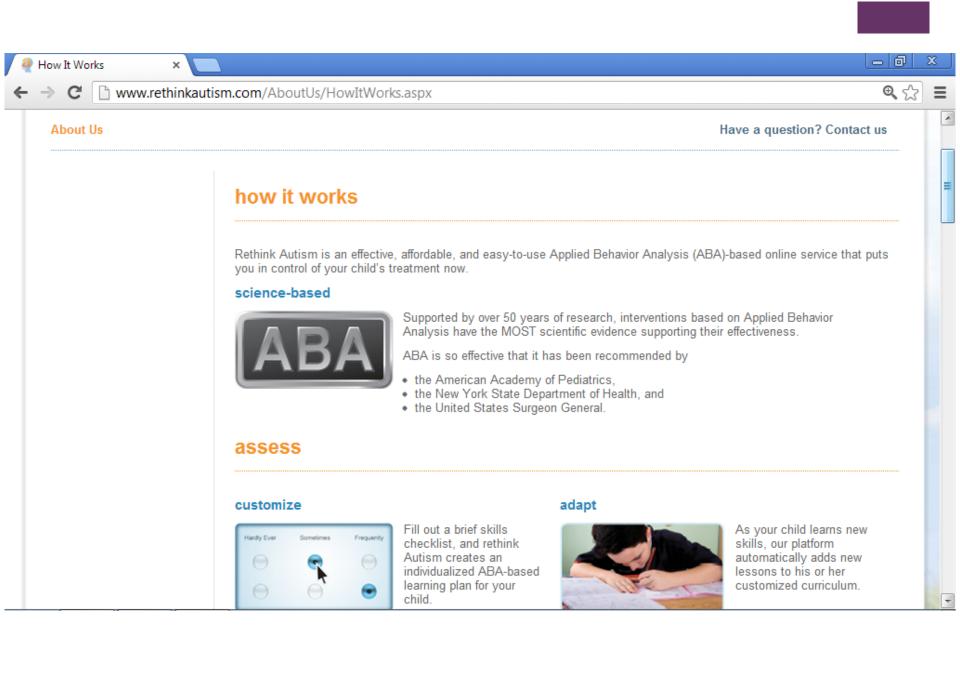
Testimonials

Our program

Advisory board

Our mission

In the media



## **Rethink Features: Community**

Mailing lists

News

Q & A

Webinars

÷

Seminars

In the media

Tip of the week

rethink autism Communit ×

www.rethinkautism.com/community/

#### Community

?

Whether you are looking to find information or share experiences, our community is here for you. Ask and answer questions, join or start a group, and communicate with others who share similar challenges. (disclaimer)

#### **Questions & Answers**

Not sure what to do? Interested in learning how other people dealt in similar situations? Submit your questions, browse through answers and contribute from your experience to our whole community.

#### Latest Question

Oppositional behavior.

Answer this Question >

Read all Questions >

#### Tip of the Week

Autism News



Practical daily living advice and teaching strategies from the clinicians at rethink autism.

View Tips >



#### Free Webinars

Learn from leaders in the field of autism education and research

View Webinars >



Autism Tip: Teach Your Child How to Play! Play is an important way for children to learn many cognitive, motor, language and social skills. Children with... Read More >



€∽

Ξ

Ξ

## Who is Rethink?

#### Leadership

Daniel Etra

╺╋╸

- Chief executive officer
- Eran Rosenthal
  - President
  - Chief operations officer
- Jamie Pagliero
  - Vice President
  - Chief learning officer
- Bridget Taylor
  - Senior Clinical Advisor

#### Scientific Advisory Panel

- Bridget Taylor, Psy.D., BCBA
- Fred Volkmer, MD
- Peter Gerhardt, Ed.D.
- Catherine Lord, Ph.D.
- Louis Vismara, MD
- Patricia Wright, Ph.D., MPH
- Maurice Feldman, Ph.D., BCBA-D
- Nicolette Brigham, Ph.D.
- William Jenson, Ph.D.

## **Rethink Model: Components**

- Core foundation of ABA principles and Discrete Trail Training
  - Combination of academic and adaptive skills
  - Concurrent system for FBA of maladaptive and problem behavior
  - Hope for generalization to more complex behaviors
- Video Modeling and Supervision for Parent and Staff Training
- Progress Monitoring and Data Tracking to Inform Decisions
- IEP Builder
  - Incorporates Rethink goals and lessons into IEP

# Two Programs of Rethink

#### Parents and Caregivers

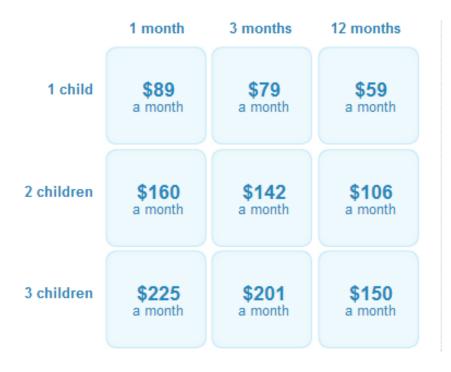
- Home based
- Brief skills assessment
- Select individual lessons
- Learn ABA principles
- Graph child's data
- Build IEP goals

#### Professionals, and Organizations

- Online assessment
- Generate individual plans
- Train staff in ABA
- Ongoing data tracking
- Multi-site collaboration
- District analytics



### + Pricing



\* Add \$25/month if you want Professional Curriculum Support

#### **Benefits of Membership**

Effective, Affordable, Easy to use autism treatment platform

- Individualized ABA-based curriculum for your child
- Hundreds of step-by-step video lessons
- Training videos show you how to teach using ABA
- Automated curriculum management
- Progress tracking and data management
- Online professional support



#### Subscribe Now

# Supervision Services

- BCBA Supervision
  - For those pursuing BCBA degrees
  - Staff training center
- Schools and Organization Supervision
  - Team to team support
  - Functional behavior assessment and behavioral intervention plan
  - Educational development and consultation
- Parents and Caregiver Supervision
  - Problem behavior assessment and treatment
  - Family support

## **Rethink: Benefits**

- Digital format is more effective
  - More people in more diverse geographic locations
  - Quicker dissemination from research-base to classroom
- Parents are directly involved
  - Not limited by services available in the school or privately funded
  - Parents are best experts on their child, know what behaviors are culturally and personally relevant and can match to common core
- Cost effective compared to service estimates in Utah
  - 2 day ABA parent training: \$1200.00
  - Biweekly consultation: \$480.00 per month
  - Rethink Autism: < \$100.00 per month (per one child)</p>

## **Rethink: Implementation**

- Brief skills assessment
- Selection of comprehensive and individualized curriculum
- 1200 dynamic teaching videos
- Video modeling used to teach ABA skills
- Computer based instruction
- Data tracking and illustrated progress monitoring
- Adaptive decision making points
- Web-based functional behavior assessment and behavioral intervention plan

## Rethink's Curriculum

- Pre-Academic
- Academic

- Expressive Language
- Receptive Language

- Daily Living Skills
- Motor Skills
- Play and Leisure
- Social/Emotional

Developed and reflective of the 2001 National Research Council Standards





Ø	Pre-	Acad	emic										
	Attending Basic: Making eye contact.		Imitation Basic: Imitating sounds.			Matching Basic: Matching colors.							
		Math Basic:	demic		Readi Basic: Sequenci	-			Basic:	ol Rea	diness		
		Labeling Summari Basic:				ch & G	Basic: Naking		Basic:	al Interaction requests.			
			Basic Identif pictur Intern Identif Advar	iying familiar es. <b>nediate:</b> iying same &	people in different.		Instru Basic: Demonstr Intermed Locating Advance Following	rating ver l <b>iate:</b> objects ir <b>d:</b>	bs.		Gramma Basic: Identifying sin Intermediate Following ins negatives. Advanced: Identifying ve	ngular & pla e: tructions w	vith

Househol Basic: Cleaning up toy	B	re-Vocational asic: reparing a snack.	Self-Care Basic: Toileting.	
🛞 Mo	tor Skills			
Fine Basic Imitati		Oral Basic: Closing mouth.	Gro Basic Imitati	
	Play/Leis Independent Basic: Completing puzzles.	Ure Group Basic: Taking tur		Pretend Basic: Engaging in pretend actions.
		al/Emotiona		

### +

### **Rethink Lessons Structure**

- 1) **Objective**
- 2) Supplies
- 3) Teaching Steps
- 4) Next Steps
- 5) Generalization
- 6) Exercise

- 7) Error correction
- 8) Prompting
- 9) Troubleshoot
- 10) Helpful hints
- 11) Sample Skills
- 12) Review

### Data and progress monitoring

- Mastery criteria: 5 trials, 90% accuracy over two sessions for successful skill acquisition
- Conducted based on 5 trial blocks
  - Student passes all 5 initial trials  $\rightarrow$  100% and end session
    - Another session must be passed at least 3 hours later
  - Student fails 1 trial  $\rightarrow$  provide additional 5 trials (total=10)
    - Student passes 9 of  $10 \rightarrow 90\%$  and end session
  - Student fails 2 or more trials  $\rightarrow$  return to teaching sessions
- Data is uploaded to Rethink website, returns progress monitoring illustrated graph

## **Barriers to Implementation**

- ABA is overwhelming
  - Need pre-service and in-service training
- Miscommunications between family and service provider
- Understanding the data collection process
- Undocumented modification and adaptation of Rethink
- Accessing and using full materials
- Not aligned with parents' goals or mastery criteria
- Attrition and motivation

## **Evaluation of Rethink**

- Large research base for components of Rethink Autism
  - ABA, Incidental teaching, Parent training, video modeling
- Anecdotal evidence
  - Winner of CODiE award 2011 and 2012: Best Instructional Solution for a Special Needs Population
  - Better Business Bureau accredited
  - Testimonials
- No peer reviewed empirical evaluation of Rethink

### //CODIE// 2011 SIIA CODIE WINNER



"This website is a pretty amazing tool for helping families get access to some ABA therapies without all of the usual cost and it keeps families informed and involved."

"The website really helps devise an individual plan for each child. As you pick goals through the website there is an ability to track data, follow progress, make schedules, and communicate with other members of a child's team."



## Testimonials

"Last week I realized there was something you really helped us with that we have seen positive progress on. Once we started simplifying the command he started coming out of the car much better within a few days and after about a week I didn't need my daughter to get him out of the car. He even got out of the car at the doctor's office (he hates that place). So

thank you for that!"

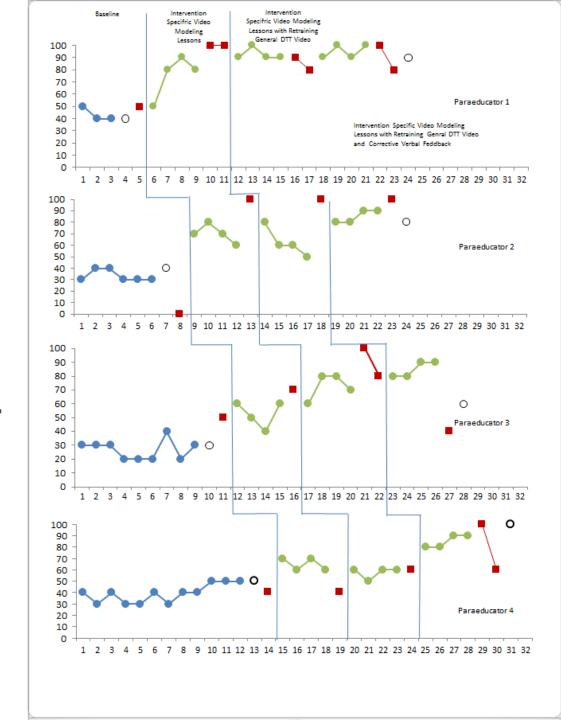


## + Dissertation: Jennifer Cardinal

Rethink Autism: Effectiveness of web-based applied behavior video modeling program on the performance of para-educators and students with autism spectrum disorder (2011).

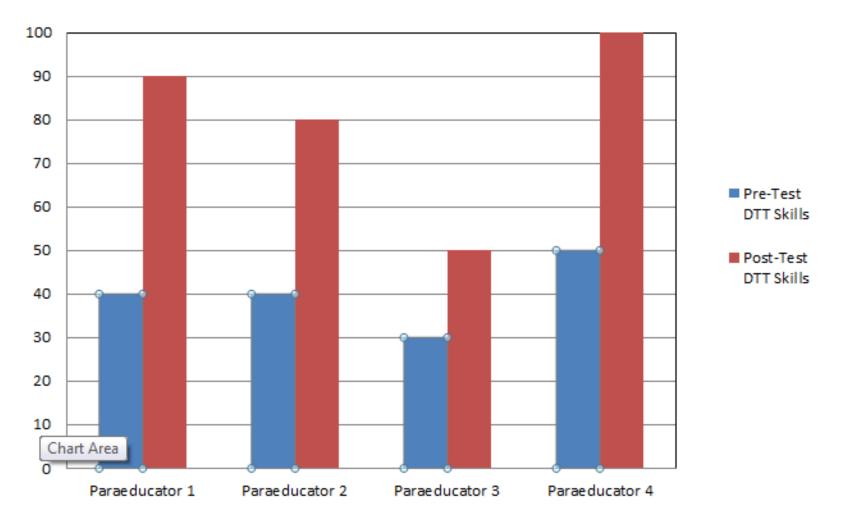
- Purpose: Examine effectiveness of Rethink autism with paraeducators and children with ASD
  - Effectiveness of video modeling on para-educators ABA teaching
  - Student response and skill acquisition of rethink curriculum
  - Student generalization of skill to non-rethink curriculum
- Method: Multiple-baseline with generalization probes
  - Midsize charter school in urban area; 4 para-educators; 4 students
  - Baseline: Rethink lessons with existing skill set/materials; pretest
  - Intervention: Staggered Rethink teaching lessons (12 step)
  - Posttest: Single session of novel Rethink lesson

Results: Progress Monitoring





### Generalization



## **Dissertation: Jennifer Cardinal**

- Results
  - Effective in increasing trainer use of ABA skills
  - Students showed increase in skill, but not consistently
  - Generalization of trainer ABA skills to novel session
- Discussion
  - Support the use of Rethink Autism training program
  - Found to have high acceptability, integrity, effectiveness
- Limitations
  - Wide range in quality of videos, lessons and ABA skills
  - No maintenance data
  - Lack of collaboration between parents and researchers

### Rethink at the University of Utah

- Committed to providing Rethink Autism to families on waiting lists for services or who live in areas with limited service access
- Graduate students trained in ABA and the Rethink Autism model will provide direct training and consultation to parents
- Funding through USOE 84.325K, H325K12306; with written letter of support from New York Office of Rethink Autism
- Aim to provide services to families and training for graduate students in consultation of ABA and Rethink Autism model



### **Rethink.U: Preliminary Model Overview**

Period	Activity	Direct Meeting	Consultation	Data Collection
Month 1	Recruitment, Buy-in	-	-	Demographics Process variables
Month 2	Pre-service training	Full group Set up Rethink	-	Pretests Records review
Month 3	Rethink lessons	Bi-monthly	Weekly	Progress monitoring Process variables
Month 4	Rethink & In-service	Full group Bi-monthly	Weekly	Progress monitoring Problem encounter
Month 5	Rethink lessons	Bi-monthly	Weekly	Progress monitoring Process variables
Month 6	Out-service evaluations	Full group Observe child	-	Outcomes Acceptability

## **Rethink.U: Recruitment**

- May be difficult to reach intended population with general advertising strategies
  - Low probability of timely return for media, flyers, snowball sampling
- Targeted recruitment (e.g. invitation word of mouth) includes selection bias
- School District Survey
  - Waiting lists, Special Ed. Classifications
- Utah Association of School Psychologists Listserv
- Research Project Database

## Rethink.U: Buy-in

- Critically important component of this model
  - A lot of work on part of families
  - We will fail without their buy in
- Families must be willing to:
  - Learn rethink model and website navigation
  - Get on Skype on a regular basis
  - Ask us candid and potentially difficult questions, and
  - Work hard: ABA is exhausting
- We must be willing to:
  - Be accessible, approachable, and optimistic
  - Work as hard as the parents or harder, especially initially

## Rethink.U: Data Collection

- Process data: collected throughout
  - Recruitment processes
  - Consultation experiences and meeting notes
- Pre-service data
  - Knowledge and Skill of ABA
  - Child variables
- Progress monitoring data
  - Progression through lessons to mastery
- In-service data
  - Areas of difficulty
- Out-service data
  - Outcomes; fidelity and integrity; acceptability



## Rethink.U: Pre-service

- Full group, day-long session conducted at University of Utah
- Each graduate students will be training parents in either ABA (morning) or training parents in rethink model and set up (afternoon)
  - During non-training session, graduate students will observe each child in structured and unstructured situations
- Parents may also bring records and complete rating forms (to be determined)
- Once graduate/families pairs are made, graduate will conduct "intake" interview, score assessments, and review records

### **Rethink.U: Middle Sessions**

- Direct meeting with families every 2 weeks
- Skype consultations every week
- Consultations will address how the program is going, what problems they are having, and if their child is progressing through the curriculum
- Continuous monitoring of Calendar Schedule on Rethink
- Data collection ongoing through Rethink, as well as process related data and anecdotal data taken from consultations

# Rethink.U: In-Service

- At month 4.5, full group will reconvene for booster session and to discuss skill development
- Provides an opportunity for parents to share with other parents
- Provides an opportunity for graduate consultants to observe what has worked with other families
- Mid-project evaluations of acceptability, implementation integrity, barriers to effective implementation

## Rethink.U: Out-service

- Full group together to evaluate overall effects of rethink model
- Final observations of child behaviors and skills
- Outcome data collected
  - Skill development
  - Skill generalization
  - Rethink effectiveness, acceptability, ease
- Describe adaptations made to curriculum
- Proposals for improvements to the preliminary model

## **Rethink.U: Evaluation**

- Parent Evaluation
  - ABA skill development, generalization
  - Acceptability, integrity, suggestions
- Child Evaluation
  - Skill development
  - Responsiveness to Rethink model
- Graduate Student Evaluation
  - Consultation and training effectiveness
  - Barriers to implementation
- Faculty Evaluation
  - Service delivery and adherence to evidence based practice
  - Over cost effectiveness of Rethink model



## **Rethink.U: Barriers**

- Connecting with families (recruitment and buy-in)
- IRB Approval for recruitment (if needed)
- Accessing the Rethink Autism course materials (cost)
- Miscommunication among and between grad students & parents
- Poor training of ABA or Rethink model
- Parent motivation or involvement

## References

- Cardinal, J. (2011). Rethink Autism: Effectiveness of webbased applied behavior video modeling program on the performance of para-educators and students with autism spectrum disorder. Dissertation submitted to the Department of Educational Psychology, School Psychology.
- Lord, C., & McGee, J. (Eds.). (2001). Educating Children with Autism. National Research Council Washington, D.C.: National Academy Press.
- www.rethinkautism.com