


**Applied Behavior Analysis in the Public School Setting:**  
**Starting and Growing the "Pathways in Education" Classroom**

Mark Howard, Special Education Teacher  
 Clear Creek Elementary School  
 Monroe County Community School Corporation




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**Learning Objectives**

- Understand applied behavior analysis (ABA) and its history.
- Recognize one way in which ABA has been applied in the public school setting.
- Demonstrate understanding of paraprofessional training in an ABA classroom.
- Explore collaborative relationships between ABA centers and public schools.
- Understand challenges and limitations of implementing intensive ABA in public school settings and compare the differences between the application of ABA in public schools and in ABA/autism centers.
- Explore additional evidence-based practices complimentary to ABA.
- Review student specific student outcomes.



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**About Me**

- **Mark Howard**
  - Background in summer camps
  - Teaching as a second career
  - First experience with special education
  - RBT certification as of February 2015
  - Research interests: aggressive and self-injurious behaviors, AAC, typically developing siblings of children with severe disabilities, ABA and ASD.

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## ABA Refresher

- Brief history
- It's grown! 6 ABA centers in Bloomington.



Burrhus Frederic Skinner



Dr. O. Ivar Lovaas

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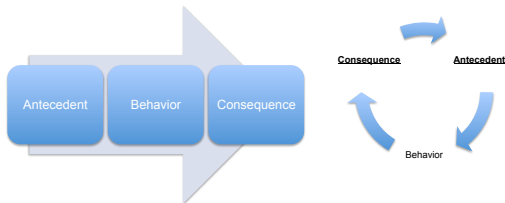
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## ABC Model That Runs All



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## “Real Life”

- Operant conditioning
  - If Timmy gets a piece of candy after he cleans his room, he is more likely to clean his room again next time.
  - If Kathleen gets a parking ticket, she would be less likely to park illegally again.
  - if you buckle your seatbelt, the annoying dinging sound goes away.
  - A teenager who has his car taken away after coming home late will be less likely to come home late again.

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## ABA is NOT a Synonym for DT

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## Why ABA?

- ABA and kids with ASD, and others – why do we do it?
  - Academic, communication and behavioral gains.
  - Simpson (2005) identified 4 scientifically based practices for students with ASD. At the top of the list, two of the other three are part of the ABA umbrella. Applied behavior analysis remains the most empirically-backed approach to teaching skills to those with ASD (Simpson, 2005).
  - ABA is used widely – medical, business, eating disorders, exercise, crime, substance abuse. I use it with my staff.
  - Lots of other options (some research-based, some not) in autism treatment, but the research supports ABA.
    - Diets, chelation, social stories, FC, rapid-prompting, Son-Rise, equine therapy, occupational therapy, social models, vitamins, neurofeedback, video self-modeling, speech therapy, swimming with dolphins, sensory integration, PECs, medicines, speech therapy, and so on.
  - **You are probably doing things with the principles ABA and may not even know it!**

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## History of the Pathways Classroom

- Before the classroom

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## History of the Pathways Classroom

- Team
  - Mark Howard – Teacher
  - Dr. Kathleen Hugo – Director of Special Education
  - Erin Colone Peabody, M.A., CC-SLP – Speech-Language Pathologist
  - Amy Barnhill, BCaBA – Behavior Consultant
  - Leigh Ann Hoffacker, M.A., BCBA – Behavior Specialist
  - Kathy Bruner – Community-Based Coordinator

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## History of the Pathways Classroom

- Fall of 2013
- 6 students
- 5 paraprofessionals
- Teacher



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## History of Pathways Classroom



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## Entrance and Exit Criteria

### • Entrance Criteria:

Significant Aggressive Behavior	Significant Communication Deficits
<p>Score on the VB-MAPP Barriers assessment.</p> <p>The student engages in behaviors resulting in danger/injury to self or others at least twice per week across 4 weeks.</p> <p>A behavior plan targeting the aggressive behavior and its current function has been implemented with fidelity in the student's current placement for a minimum of 4 weeks with no notable progress.</p>	<p>The student is unable to use appropriate means to communicate (eg – could scream to communicate).</p> <p>The student makes no sounds throughout the day or uses babbling only. He/she is unable to sound pair or imitate sounds.</p> <p>If a device or sign is being taught, the student requires full prompting to use it.</p> <p>The student has participated in 1:1 PRT/Mand training sessions for a minimum of 20 minutes per day across 8 weeks with no notable progress.</p>

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## Entrance and Exit Criteria

### • Exit Criteria:

Significant Aggressive Behavior	Significant Communication Deficits
<p>Duration, intensity and/or frequency (as applicable) of aggression must decrease by 50% of baseline across 2 consecutive weeks.</p> <p>Score on the VB MAPP Barriers assessment .</p> <p>All team members (teacher, coordinator, behavior specialist) agree that the student can successfully participate in the transition plan without significant increases in behavior.</p>	<p>Repertoire - The student spontaneously communicates requests using pictures, sign or verbal language for at least 10 different requests across 4/5 consecutive data days.</p> <p>Frequency – The student spontaneously communicates requests using pictures, sign or verbal language a minimum of 10 times across 4/5 consecutive data collection days.</p> <p>All team members (Teacher, CB coordinator, SLP) agree that the student can successfully participate in the transition plan without a decrease in communication.</p>

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## Current Classroom

- 8 students (all with (or had) significant aggressive and/or self-injurious behaviors)
- 6 paraprofessionals
  - Median age of 33.5
  - Wide range of skills and backgrounds
- Teacher
- All students with BIP
- All students have access to general education curriculum
- ASD is not an entrance or exit criterion, but...
- As you can see, it's not quite 1:1 all of the time...



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### Current Classroom

**Thursday**

10:00 AM	10:30 AM	11:00 AM	11:30 AM	12:00 PM	12:30 PM	1:00 PM	1:30 PM	2:00 PM	2:30 PM	3:00 PM	3:30 PM	4:00 PM	4:30 PM	5:00 PM
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### Current Classroom



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### Current Classroom



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### Current Classroom



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### Current Classroom



Teacher-led.  
ABC is instruction,  
response, reward or  
prompt.

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### Current Classroom



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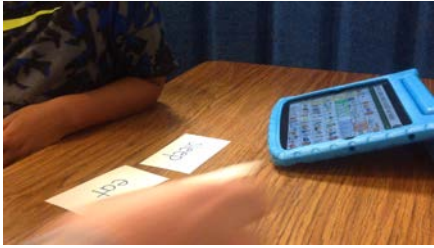
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### Current Classroom



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### Current Classroom



Student-led.  
ABC is preferred  
activity, response,  
student gets  
preferred activity

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### Current Classroom



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## Curriculum and Programming

- Edmark Reading Program
- TEACCH
- Handwriting without Tears (HWT)
- STAR
- Core vocabulary



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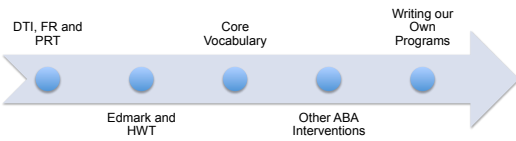
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## Curriculum and Classroom



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## Core Vocabulary

- A different focus:



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## Staff Training

- Initial training: 2 days of STAR curriculum training and 2 days of CPI training. Additional trainings offered yearly.
- Paraprofessional mentor program.
- Training task list:

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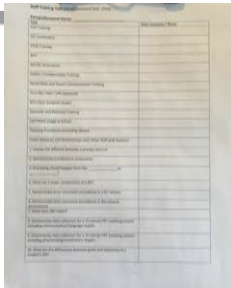
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## Training Task List



- 35 point list
- Demonstration and explanation

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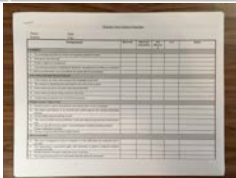
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## Staff Training



- Fidelity Videos
- 1x per month per paraprofessional
- Me, too

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## Staff Training



Buy-in!

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## School Training

- Regular presentations at faculty in-service:
  - Narrative
  - ASD
  - ABA
- Community Common Ground
- Parent training



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## Follow-up Break



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### Challenges of ABA in Public School

	ABA Center	Pathways Classroom
Peers (Typically Developing)		X
Restraint	Prone	Not Prone
Seclusion	X	
Individual Work Spaces	X	
Academic Curriculum	X (depends on client)	X
Community Outings	X	X (limited)
Staffing (1:1)	X	
Available Days	All but weekends/holidays	180
In Home Therapy	X	

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### Challenges of ABA in Public School

	ABA Center	Pathways Classroom
Funding	X	
Toilet Training	X	X
Discrete Trial Instruction	X	X
Verbal Behavior / NLP	X	X
AAC	X	X
Incidental Teaching or NET	X	X

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### Challenges of ABA in Public School

- Some general thoughts:
  -  – Some ABA practices/interventions may not be practical in a public school setting.
  - Generalization and maintenance.

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## Collaboration with ABA Centers

- General increase in collaboration
  - IEP goals development
  - Behavior plans
  - Core vocabulary
  - Shared student collaboration (teacher / program manager)
  - SLP / BCBA collaboration
  - Shared observation including paraprofessionals
  - Transitions

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## Other Collaborations

- Community Friends Program
  - Bloomington Fire Department
  - Bloomington Police Department
- Indiana University Bloomington
  - Department of Speech and Hearing Sciences
  - Service learning students
  - Department of Biology
- Ivy Tech Community College Bloomington
- “Therapy” dogs MeMe and Simon



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## Follow-up Break



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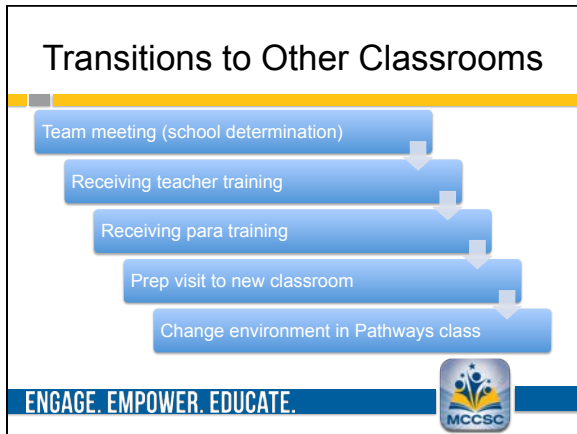
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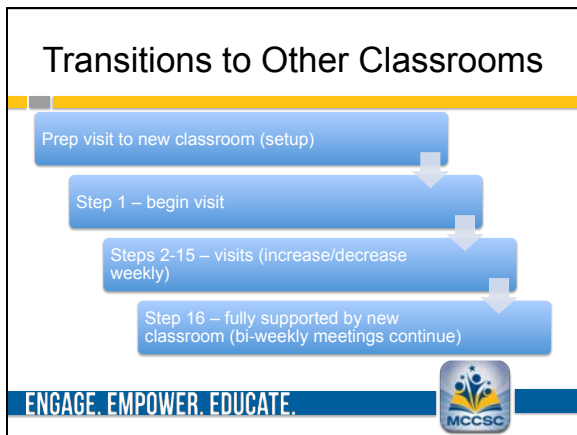
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## Case Study

- Previous focus on a more "developmental" curriculum. Limited communication outside of behavior (intense).
- Student started in Pathways classroom in August 2013. Emphasis was on:
  - Communication (especially functional communication)
  - Behavior reduction
- Started with DT, PRT and FR.
- [\(video of pecs\)](#)
- [\(video of low tech mat\)](#)
- [\(video of reading a book\)](#)
- [\(video of reading a book 2\)](#)



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## Case Study

May of 2013	April of 2016
Spontaneous Single-Word Mands – <b>23 is the record with fewer than 10 on most days.</b>	Spontaneous Multi-Word Mands (including "stop" and "finished") - <b>100+ daily on average</b>
Daily Average Baseline 9/11/13 - 9/13/13	Daily Average 9/12/16 - 9/14/16
Strikes - <b>48</b>	Strikes - <b>0</b>
2013-2014 School Year	2015-2016 School Year
Total Strikes - <b>2055</b>	Strikes - <b>2</b>
2013-2014 School Year	2015-2016 School Year
Physical Crisis Interventions - <b>814</b>	Physical Crisis Interventions - <b>2</b>

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## Possible Future Directions

- Parent training?
- More space?
- More funding?
- Become training center for others?
- Increase staff training? (RBT / Other)
- Increase staff pay?
- Better data?
- Improve exit/entrance criteria and transition protocol.



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## Questions?



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## Contact

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