

# Applied Behaviour Analysis (ABA) in Educational Settings

Home to School and School to  
Home



**Autism**ONTARIO  
*see the potential*

# What is ABA?

Applied Behaviour Analysis (ABA) - The application of the science of behaviour analysis

Behaviour Analysis:

- a scientific approach using validated principles
- data driven
- changes socially significant behaviours



# What is ABA?

- A clear and systematic way to:
  - **describe**
  - **observe**, and
  - **measure** behaviour
- Research and evidence-based
- Data-driven assessment and intervention



# What is ABA?

- Individualized approach
- Changes behaviours
  - Increases new skills.
  - Decreases socially significant problem behaviours.



# What is ABA?

- Focuses on:
  - increasing maintenance of new skills
  - generalization/transfer of skills
  - independence
- Is effective across a number of areas in addition to Autism Spectrum Disorders (ASD)



# What is NOT ABA?

- ABA is not a material or tool (e.g., visual schedule, token board, etc.)
- ABA is not the use of ineffective strategies or methods.
- ABA is not only for children and youth with ASD.



# What is PPM-140?

## Policy/Program Memorandum No. 140:

- Incorporating methods of Applied Behaviour Analysis (ABA) into programs for students with Autism Spectrum Disorders (ASD)
- Developed by the Ontario Ministry of Education
- Released on May 17, 2007



# PPM-140

- Policy memorandums provide ‘direction’ to school districts/boards.
- PPM-140 is intended to strengthen a collaboration between:
  - parents
  - schools
  - community





# PPM-140

PPM-140 defines ABA in the same way as the field of behaviour analysis.

- 2 'requirements' are set-out in PPM-140



# PPM-140 – Requirement #1

1. School boards must offer students with ASD special education programs and services, including, where appropriate, special education programs using ABA methods.



# PPM-140 – Requirement #2

2. School board staff must plan for the transition between various activities and settings involving students with ASD.



# PPM-140

Five components of this Policy:

1. individualized program
  - a) curriculum
  - b) teaching methods



# PPM-140

2. use of positive reinforcement
3. data collection and analysis
4. transfer or generalization of skills
5. transition planning



# PPM-140

What should we see with PPM-140?

- collaboration with parents on IEP (Individualized Education Plan) development
- collaboration with outside professionals on IEP development
- goals must be based on assessments - including Functional Behaviour Assessments (FBA)



# 1a. Curriculum Components

Areas identified on the IEP as accommodations, modified or alternative, can include:

- language and communication skills
- behaviour
- social skills
- life skills / adaptive skills
- motor skills



# 1b. Teaching Methods

Evidence-based, effective ABA teaching procedures include:

- activity schedules
- behaviour chaining (backward, forward, or total task chains)
- discrete trial instruction





# 1b. Teaching Methods

Evidence-based, effective ABA teaching strategies include:

- errorless learning/teaching
- functional analysis/assessments
- functional communication training (FCT)



# 1b. Teaching Methods

Evidence-based, effective ABA teaching procedures include:

- in-vivo modeling, video modeling, and audio modeling
- reinforcement systems
- script/script fading procedures



# 1b. Teaching Methods

Evidence-based, effective ABA teaching procedures include:

- self-management techniques
- shaping procedures



# 2. Positive Reinforcement

- the child determines their potential reinforcers
- needs to be delivered for specific behaviours
- follows a predetermined schedule
- must be monitored



# 3. Data Collection & Analysis

If there is no data then there is no ABA!

Data is used to measure:

- prompt levels in use
- accuracy of the response (+/- or ✓/x)
- increase in desired skills



# 3. Data Collection & Analysis

Data is used to measure:

- reduction of problem behaviour
- frequency/rate (the number) of the target behaviour
- duration (how long) of the target behaviour



# 3. Data Collection & Analysis

Data must be analysed to determine what it tells us.

Data analysis process encompasses:

- baseline data – before teaching occurs
- intervention data – during teaching
- maintenance data – after teaching is finished



# 4. Generalization of Skills

Generalization means that the skill or target behaviour can be demonstrated:

- with different materials
- with different people
- in different settings





# 5. Transition Planning

Transitions may include:

- entry to school
- moving from an outside agency to a school
- transition between activities and settings or classrooms
- transitions between grades



# 5. Transition Planning

Transitions may include:

- moving from school to school
- transition from elementary to secondary school
- transition from secondary school to postsecondary destinations and/or the workplace.



# 5. Transition Planning

Transition from Intensive Behaviour Intervention (IBI) services to school:

- should include the community agency professional
- Connections for Students (CFS) program



# PPM-140 and the Individualized Educational Plan (IEP)

What should we see on the IEP?

- identification of the child's skills and needs
- the instructional level
- strategies/methods of teaching
- must incorporate relevant ABA methods



# ABA in Schools

What is needed to meet the regulations of PPM 140?

- trained professionals
- an understanding of ABA
  - the principles
  - the process
  - the application



# ABA in Schools

## Trained Professionals

- hiring qualified staff in specific roles
- training school staff
- adequate and ongoing supervision



# ABA in Schools

Resources are available to assist the classroom teacher and school personnel.

- Training events:
  - approved online ABA webinars and short courses
  - approved online ABA academic courses
  - public and private agencies with certified behaviour analysts



# ABA in Schools

## Books:

- Applied Behavior Analysis for Teachers (9th Edition), Paul A. Alberto and Ann C. Troutman, 2012
- Bringing ABA into Your Inclusive Classroom: A Guide to Improving Outcomes for Students with Autism Spectrum Disorders. Debra Leach, 2010





# ABA in Schools

## Books:

- It's Time for School! Building Quality ABA Educational Programs for Students with Autism Spectrum Disorders, Edited by Ron Leaf, Mitchell Taubman, & John McEachin, 2008



# Resources for ABA in Schools

## Books:

- One Step at a Time: ABA and Autism in the Classroom — Practical Strategies for Implementing Applied Behavior Analysis for Students with Autism.  
Jennifer Krumins, 2008

[http://parentbooks.ca/ASD\\_Classroom\\_ABA\\_for\\_Educators.html](http://parentbooks.ca/ASD_Classroom_ABA_for_Educators.html)



# Why Consistency is Important

- efficiency in learning
- additive effect
- principle of differential reinforcement



# Home to School

- generalization of skills to a new setting
- sharing of assessment results
- sharing of home ABA/IBI program targets and effective teaching methods



# Home to School

- collaboration regarding functional communication training
- collaboration with respect to potential reinforcers
- collaboration around which behaviours are socially significant behaviours (this includes acquiring skills as well as reducing maladaptive behaviours)



# Home to School

- current prompt levels in place in the home
- cultural and language differences



# School to Home

Development of an individualized curriculum:

- Where is the child currently functioning with respect to the curriculum expectations?
- What are the foundation skills necessary to progress?



# School to Home

- access to technology which may be beneficial
- identification of barriers to learning in a group setting
- assessment and treatment of interfering behaviours
- assessment of cognitive, language, and academic skills





# References

- Association for Science in Autism Treatment (ASAT), [www.asatonline.org](http://www.asatonline.org) .
- Buchanan, S.M., & Weiss, M.J. (2006). *Applied Behavior Analysis and Autism: An introduction. The New Jersey Center for Outreach and Services for the Autism Community (COSAC). Ewing, NJ: COSAC. Available at [www.njcosac.org](http://www.njcosac.org).*



# References

- Cooper, J.O., Heron, T.E., & Heward, W.L. (1987). *Applied behavior analysis*. Upper Saddle River, NJ: Prentice Hall.



# References

- National Autism Center. *Evidence Based Practice and Autism in the Schools: A Guide to Providing Appropriate Interventions to Students with Autism Spectrum Disorders*. Randolph, MA: National Autism Centre, 2009. Available at:  
[www.nationalautismcenter.org/pdf/NAC%20Ed%20Manual\\_FINAL.pdf](http://www.nationalautismcenter.org/pdf/NAC%20Ed%20Manual_FINAL.pdf) . Accessed May 8, 2013



# References

- National Autism Center. *National Standards Report*. Randolph, MA: National Autism Centre, 2009. Available at: [www.nationalautismcenter.org/pdf/NACStandards Report.pdf](http://www.nationalautismcenter.org/pdf/NACStandardsReport.pdf). Accessed May 8, 2013



# References

- Ontario Ministry of Education (2007), Policy/Program Memorandum No. 140, *Incorporating Methods of Applied Behaviour Analysis (ABA) Into Program for Students with Autism Spectrum Disorders (ASD)*

