

Courses in Applied Behaviour Analysis and autism; Evidence Based Practice with example of student projects



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Content



- Short introduction to courses in applied behaviour analysis at Stockholm University.
- Brief introduction to two Evidence Based Practice reviews concerning educational and behavioural interventions for individuals with autism 0-22 years
- Examples of student projects concerning evidence based practices 2012
- How can we move forward? A Swedish model?

Joint venture



Department of Special Education

1. Introduction to autism and applied behavior analysis . 7,5
 3. Application of applied behaviour analysis and theoretical considerations 7,5
 - 5. Behavioral interventions; Theory evidence and assessment. 7,5**
- Lise Roll-Pettersson

Department of Psychology

2. Single subject research designs with a focus on interventions for individuals with autism. 7,5
4. Functional assessment and analysis of problem behaviour . 7,5
6. Behavioral interventions; Practice and implementation, 7,5

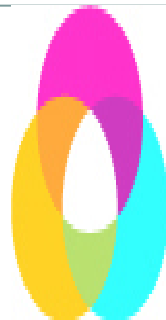
Jonas Ramnerö

Students; SLT, OT, psychologists, parents , PT, social workers, educators, special educators,,

Single subject research designs



RE • SEARCH



THE NATIONAL PROFESSIONAL DEVELOPMENT CENTER ON AUTISM SPECTRUM DISORDERS

Findings and Conclusions



ADDRESSING THE NEED FOR EVIDENCE-
BASED PRACTICE GUIDELINES FOR
AUTISM SPECTRUM DISORDERS

- **FPG Child Development Institute University of North Carolina at Chapel Hill**
- **M.I.N.D. Institute University of California at Davis Medical School**
- **Waisman Center University of Wisconsin-Madison**

Focused interventions

<http://www.nationalautismcenter.org/nsp/reports.php>

Both comprehensive and focused interventions

Scientific Merit Rating Scale



- Experimental rigor of the research design
- Quality of the dependent variable
- Evidence of treatment fidelity
- Demonstration of participant ascertainment
- Generalized data collected

- Established
- Emerging
- Unestablished
- Ineffective/harmful



Evidence in nine areas of interest;

Students choice based on clinical considerations.

Curiosity:

Knowledge lacking in Swedish context

- *Joint attention*
- *Peer-mediated play*
- *Pivotal response training/treatment*
- *Behavioral intervention sleep problems*
- *Video ´ modeling to teach play*
- *Exposure*
- *Setting goals and goal attainment*
- *Verbal behavior (VP- mapp)*
- *Modified incidental teaching*
- *Preciscion teaching*



Pivotal response training



WHAT IS PRT?

- Based on applied behavior analytic principles and procedures & developmental psychology.
- Behavioral Cusps

WHICH BEHAVIORS?

- Motivation
- Responding on Multiple cues
- Self management

KEY COMPONENTS

- Early start
- Hours/intensity
- Involment of families.

Pivotal Response Treatment {14 studies}

Evidence Level} Established

This treatment is also referred to as PRT, Pivotal Response Teaching, and Pivotal Response Training. PRT focuses on targeting “pivotal” behavioral areas— such as motivation to engage in social communication, self-initiation, self-management, and responsiveness to multiple cues, with the development of these areas having the goal of very widespread and fluently integrated collateral improvements. Key aspects of PRT intervention delivery also focus on parent involvement in the intervention delivery, and on intervention in the natural environment such as homes and schools with the goal of producing naturalized behavioral improvements. This treatment is an expansion of Natural Language Paradigm which is also included in this category.

Skills Increased

Academic	Communication	Higher Cognitive Functions	Interpersonal	Learning Readiness	Motor	Personal Responsibility	Placement	Play	Self-Regulation
	X		X					X	

Behaviors Decreased

Problem Behaviors	RRN	SER	General Symptoms

Ages

0-2	3-5	6-9	10-14	15-18	19-21
	X	X			

Diagnostic Classification

Autistic Disorder	Asperger's Syndrome	PDD-NOS
X		

Ingela Boström & Anders Fredriksson, Nov 2012.	Script fading to promote unscripted bids for joint attention in children with autism (Pollard et al. 2012)	The collateral effects of joint attention training on social initiations, positive affect, imitation and spontaneous speech for young children with autism (Whalen et al. 2006)	Randomized controlled caregiver mediated joint engagement intervention for toddlers with autism (Kasari et al. 2010)
Forsknings design	Singlesubject Multipel baslinje design SMRS 3 pga inte mer än 3 deltagare	Single subject Multipel baslinje design 4 barn SMRS 5	Gruppstudie 2 grupper á 19 dyader SMRS 5
Beroende variabel	Insamlad data i alla sessioner (29%) IOA 97 % SMRS 5	Insamlad data alla bedömningar (33%) IOA kappa 0,85-1,0 SMRS 5	Insamlad data 20% på de primära variablerna, joint engagement, joint attention färdigheter och lekbeteende. 78-89% SMRS 3
Oberoende variabel	Noggrannhet genomförandet 99,6 % Varje session 34 % IOA inget, SMRS 4	IOA finns ej med (hänvisar tidigare studie) SMRS 1	IOA .86 för 20% av sessionerna SMRS 4
Deltagare	Ingen säkerställning av diagnos SMRS 1	Relevanta psykometriska test DMS-4 SMRS 5	Diagnosticerade av oberoende samt säkerställd via adi-r för projekt SMRS 5
Generalisering	Stimuli - miljö - personer Uppföljning 6 mån SMRS 5	Stimuli - miljö Uppföljning SMRS 5	Information saknas runt generaliserings faktorer, dock uppf efter 1 år SMRS 1
Evidens	Total SMRS poäng: 3 (3,45) Evidens JA	Total SMRS poäng: 4 (4,2) Evidens JA	Total SMRS poäng: 4 (3,95) Evidens JA



Video modeling and play

	Autism	No.	3-5 yrs	6-9 yrs	10-14 yrs	Inter-personal	Personal Responsibility	Communication	Play
Charlop, Christy et al. (2000)	X			X	X	x	x	x	x
Hine & Wolery (2006)	X	2 G.	X						x
McDonald et al. (2005)	X	2 B.	X	X					x
Reagon, K. A., Higbee, T. S., & Endicott, K. (2006).	X	1 B.	X	X					x
D'Ateno, Mangiapanello (2003)	X	1 G.	X					x	x

Video modeling & play

Charlop-Christy, M. H., Le, L., Freeman, K. A. (2000). A Comparison of Video Modeling with In Vivo Modeling for Teaching Children with Autism. *Journal of Autism and Developmental Disorders*, Vol. 30, No. 6.

D'Ateno P., Mangiapanello, K., & Taylor, B.A. (2003) . Using video modeling to teach complex play sequences to a pre-schooler with autism. *Journal of Positive Behavior Interventions*, 5 (1)

Hine & Wolery (2006) Using point-of-view video modeling to teach play to pre-schoolers with autism. *Topics in Early Childhood Special Education*, 26 (2), 83-93.

McDonald et al. (2005) Using video modeling to teach pretend play to children with autism. *Behavioral Interventions*, 20 (4), 225-238.

Reagon, K. A., Higbee, T. S., & Endicott, K. (2006). Teaching pretend play to a student with autism using video modeling with a sibling as model and play partner. *Education & Treatment of Children*.

VIDEO MODELING & SOCIAL INTERACTION

Nikopoulos, C. K., Keenan, M. (2003). Promoting social initiation in children with autism using video modeling. *Behavioral Interventions*, 18, 2, 87-108

Nikopoulos, C. K., Keenan, M. (2007). Using video modeling to teach complex social sequences to children with autism. *Journal of Autism and Developmental Disorders*, 37 (4), 678-693.



The Knowledge triangle:

Shaping the future of Europe - Summary report

(2009).
Högskoleverket:
Swedish National Agency for Higher Education

