

# PSYCHOLOGICAL INTERVENTION: HOW CAN SCHOOL-BASED INTERVENTION HELP?

---

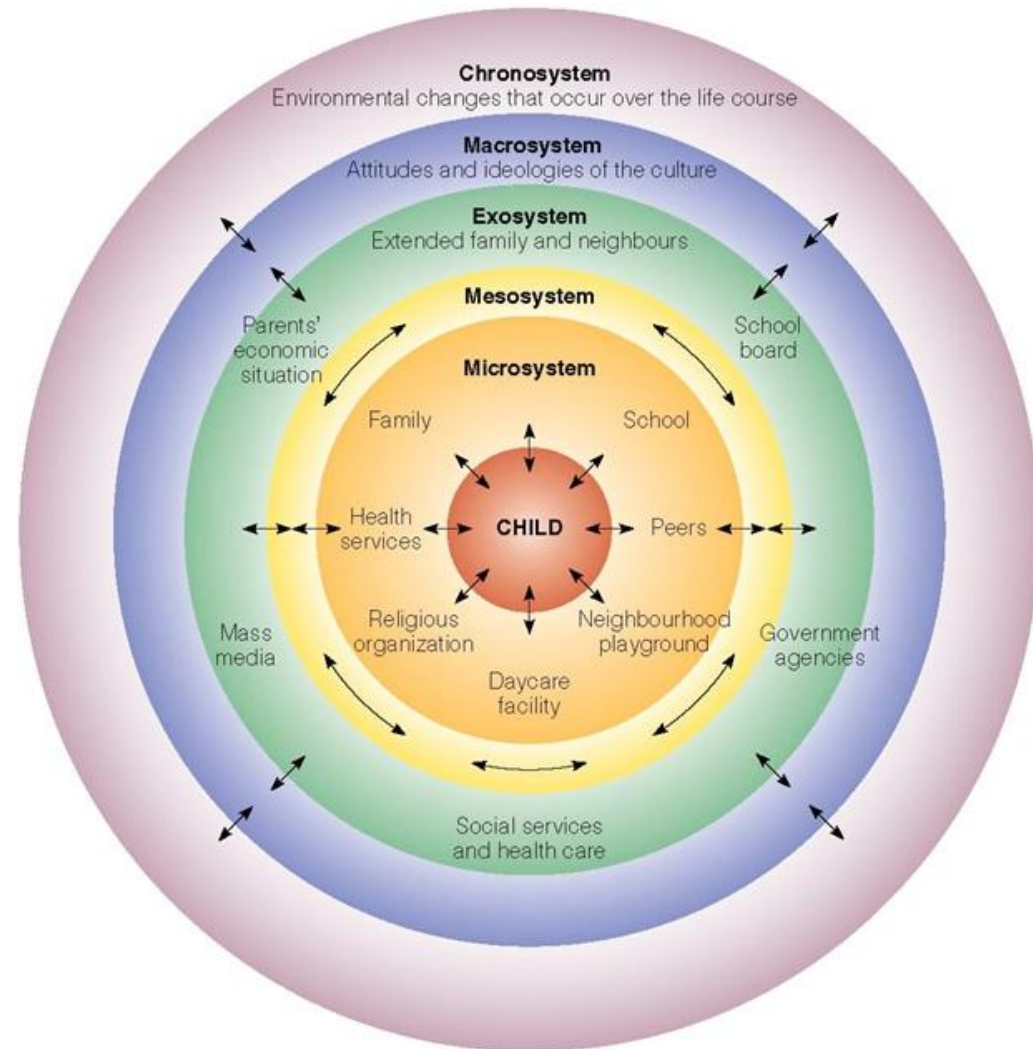
Dr. Cecilia W.C. Lam

Educational Psychologist and Lecturer

Department of Psychology, Educational Psychology  
University of Hong Kong

# Why the School?

- The Bronfenbrenner's Ecological Systems Theory describes children's development as occurring within linking systems
- School plays an essential role in a child's life and development, placing it within the Microsystem
- School provides an opportunity where learning, practice, and generalization of skills take place.

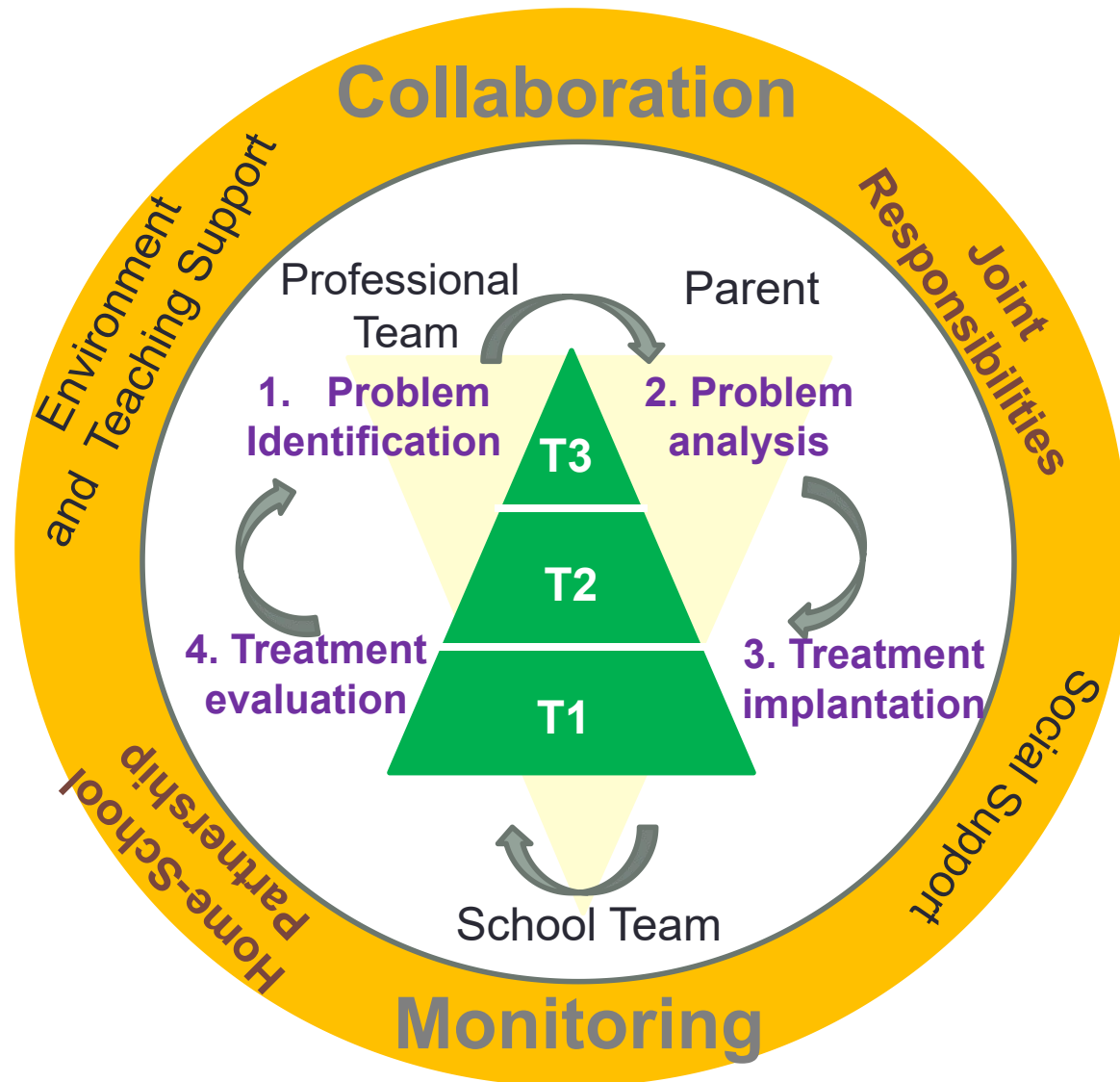


# How Can the School Help with children with ASD?

## School Based Inclusion Model

Model combination of

- The Autism Spectrum Inclusion Collaboration Model (Myles, Simpsons & deBores, 2008)
- ASD Nest Program Three-Tier Model (Bleweiss, Hough & Cohen, 2013)
- Conjoint Behavioral Consultation Model (Sheridan & Kratochwill, 2007)



# Three-tier Model of Supports for the ASD Nest Program

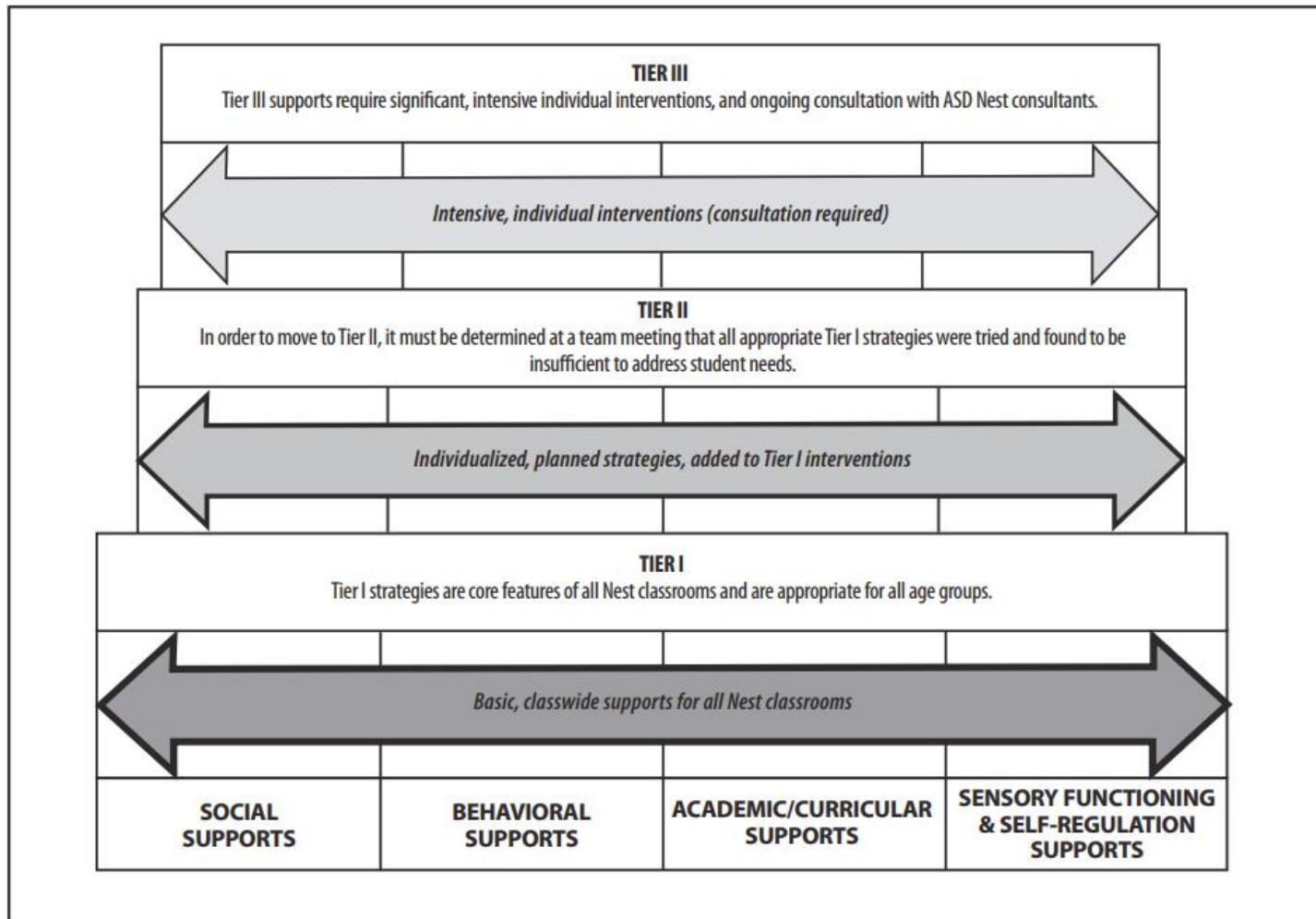


Figure 1.1. Three-tier model of supports for the ASD Nest program.

High level of support and monitoring Low

Low teacher - student ratio High

# Social Skill Training (SST) is like Ballroom Dancing




# Four Steps in Social Skills Trainings (SST) in Schools

- Promoting skills acquisition
  - Teaching appropriate social behavior through modeling, coaching, and instruction
- Enhancing skills performance
  - Rehearsal, reinforcement, and cooperative learning strategies
- Removing interfering behaviors
  - Interfering behavior may involve response-cost system and differential reinforcement
- Facilitating generalization
  - Promoted by using different training opportunities, and using community-based reinforcement



# Common Forms of Social Skills Trainings

- 1) Behavior rehearsal
- 2) Visual Support
- 3) Video modelling
- 4) Peer-mediated intervention
- 5) Naturalistic technique
- 6) Group formats



Combined with reward and  
fade out system

Evidence-based approach, consolidated information from 2 meta-analysis studies.

Bellini S., Peters J.K., Benner L., Hopf A. (2007) A Meta-Analysis of School-Based Social Skills Interventions for Children With Autism Spectrum Disorders. Remedial and Special Education May/June 2007 28: 153-162,

Reichow, B., & Volkmar, F. R. (2010). Social skills interventions for individuals with autism: Evaluation for evidence-based practices within a best evidence synthesis framework. Journal of Autism Development Disorder, 40, 149-166. Reichow, B., Volkmar, F. R. & Cicchetti, D. V. (2008). Development of an evaluative method for determining the strength of research evidence in autism. Journal of Autism and Developmental Disorders, 38, 1311-1318.

# Behavioral Rehearsal

- Effective approach teaching social skills which allow for positive practice of skills (Gresham, 2002)
- Child acting out situation or activities in a structured environment to practice newly acquired skills and strategies or previously learned skills that the child has difficulties performing
- Rehearsal allows the child to execute the skills or behavior without the pressure and anxiety sometimes associated with the real-life situation. Also allows practice of mechanic of a movement through repetition
- Repetition is a key aspect of rehearsal, as is ending with errorless (at least a positive) performance



# Visual Support

- Commonly used for ASD student across age group (preschool to adolescents)
- Instructional support includes: visual schedules, social stories (Gary 2000), scripts and visual activities
- Effective in enhancing understanding and structuring social interaction for students with ASD. For example initiating interaction, making transitions, playing a game and speak with appropriate volume & intonation.
- Most effective to pair with behavioral rehearsal. Where visual support was used as an introduction to skills/concept, and with behavioral rehearsal, the child can practice the skills addressing the social behavior.

# Video Modeling

- A form of an intervention aimed to tap into the visual learning style of ASD children. The child learns by watching own behavior.
- Intervention approaches using video tapes/clips instead of live scenarios to depict targeted behaviors
- Watching videotapes/clips enable the child to focus their attention on the behavior modeled in the tape/clip(McCoy & Hermansen, 2007)

# Video Modeling

- **Basic Video Modeling –**
  - the learner, views a video of a peer performing the targeted task or desired behavior.
- **Video Self-Modeling –**
  - the learner, views a video of himself performing a skill that he has some ability to do but needs to master.
- **The point of View Video Modeling –**
  - the learner, views the skill or behavior from a video that captures what the learner will see through his own eyes.
- Highly effective way to teaching social skills (includes social-communication skills, behavioral functioning, and functional skills ) through video modeling. (Reichow & Volkmar, 2010)
- Must used as a conjunctional intervention with another form of SST

# Peer Mediated Intervention

- Natural context in peer mediated intervention is important to achieve generalization
- An approach where peers of the target students are trained to provide necessary tutoring in educational, behavioral, and/or social concerns.(Chan et al., 2009).
- It is suggested that daily exposure in peer play with trained peers has been found to increase several social behaviors with children with ASD.
  - Social behaviors include: proximity, appropriate eye contact (Paul, 2003)
- One of the high effective intervention for generalizing ASD children SST.

# Naturalistic Technique

- Provide a structural parent-child / teacher-child interaction and seek to build scenario that would generalize to a child's natural environment
- Instruction is based on teaching imitation and or/join attention behaviors, and have been found effective in younger children (Ingersoll, Dvotcsak, Whalen, & Sikora, 2005)
- Parent training is an effective method for increasing social skills of young children. However, more research is required to verify it is effectiveness with older children (Reichow & Volkmar, 2010)

# Group Format

- Group intervention is common to use for high function ASD (Solomon, Goodlin-Jone, & Anders, 2004).
- Commonly using combined form of SST discussed above
- Group format provides opportunity for ASD children to interact with other children and apply skills learned in relatively realistic setting (Solomon et al., 2004; While et al., 2006)
- Research on the effectiveness of social skills groups is fairly limited (Reichow & Volkmar, 2010).
- It allows building friendship that could go beyond the extend of the group
- Intensive skills instruction is possible in a group composed for exclusively of children with ASD
- The inclusion of non-ASD children allows the opportunity to interactive in a more naturalistic way under the support of trainers. (Klin, & Volkmar, 2000)
- Research suggested that group format is more effective for older students (upper primary to secondary) (S. Bellini, Gardner, & Markoff, 2014)

# Matching Strategies with Type of Skills Deficit

- Main concern with group format in SST
- The main element of social skills programming is having matching strategies with the type of skills deficit of each ASD child.
- Therefore, it is important to allocate children with similar skills deficit in the same training group
- One size does not fit all

# Select Intervention Strategies

- Points to consider when selecting an intervention strategy:
  - ◆ Does the selected strategy have a functional relationship with the targeted skills
  - ◆ Does the strategy match the type of skill deficit
  - ◆ Does the selected strategy match the developmental level of child (i.e. language and cognitive functioning)
  - ◆ Is it evidence based approach?



# To Prevent Mismatch of Intervention

- Building Social Relationship Model
  - ① Assess on children's social functioning (i.e., through use of Autism Social Skills Profile, (Bellini, 2007))
  - ② Distinguished between skill acquisition and performance deficit
  - ③ Selection intervention strategies
  - ④ Implement intervention
  - ⑤ Evaluate and monitor progress
- Skill acquisition deficit - absence of a particular skills or behavior
- Performance deficit – skills or behavior that is present but not demonstrated or performed

# To Prevent Mismatch of Intervention

- Skill acquisition deficit -
  - Absence of a particular skills or behavior
  - Goal of intervention is to teach new skills or develop recently acquired skills
- Performance deficit
  - Skills or behavior that is present but not demonstrated or performed
  - Goal of intervention is to enhance performance of existing skills

Promote Skill Acquisition	Enhance Social Performance
Teach non verbal recognition and perspective taking	Reinforce / contingency strategies
Reciprocal intervention strategies	Gaming skills / play skills
Conversation game	Environmental modification
Behavioral rehearsal	Peer-mediated instruction
Social stories**	Increased opportunities / live practice / role play
Social problem solving and social rules	Peer training strategies
Self monitoring**	Priming social behavior
Relaxation techniques ** / emotion regulation**	Promoting strategies
Video modeling**	Relaxation techniques** / emotion regulation** application
Prompting strategies	Self monitoring** / video modeling** / social stories**

\*\* may be used in both to promote skills acquisition and to enhance performance

# Intervention Dosage

- Gresham et. al (2001), conducted a meta-analysis on school-based SST intervention. Despite there was no recommended dosage of intervention, but the team noted that 30 hours of instructional, social skills group which spread over 10-12 weeks is NOT ENOUGH. Such dosage produced low intervention effects.
- Reichow & Volkmar (2010), further suggested that a combination of instructional skills training session along with ongoing teaching and reinforcement moment throughout school day is the most effect approach in supporting ASD children.

# Summary on Effective SST in School

- a) Increase the dosage of social skill intervention
- b) Provide instruction within the child's natural setting
- c) Match intervention strategies with type of skill deficit
- d) Conduct reliable and valid social skills assessment (i.e. with baseline measures)
- e) Develop clear and measurable treatment objective
- f) Facilitate generalization of skills across settings and persons
- g) Ensure intervention fidelity
- h) Implement systematic social skills programming

# School-Based SST and Beyond

- Social behavior is contextual. Individuals who receive intervention only in the artificial situation will face difficulties with generalization.
- Total improvement of social skills deficits does not occur, and difficulties with social skills persist even for those who receive good treatment.
- For interactive behavior to be maintained, training should occur in the environments where generalization is to occur (for example home, school, and playground)
- SST may have most effect when integrated into natural settings



# Reference

- Asher, S. E., & Wheeler, V. A. (1985). Children's loneliness: A comparison of rejected and neglected peer status. *Journal of Consulting and Clinical Psychology*, 53, 500-505.
- Bellini, S., Peters, J. K., Benner, L., & Hopf, A. (2007). A meta-analysis of school-based social skills interventions in children with autism spectrum disorders. *Remedial and Special Education*, 28, 153-162.
- Carter, C., Meckes, L., Pritchard, L., Swensen, S., Wittman, P. P., & Velde, B. (2004). The friendship club: An after-school program for children with Asperger syndrome. *Family Community Health*, 27, 143–150.
- Delprato, D. J. (2001). Comparisons of discrete-trial and normalized behavioral language intervention for young children with autism. *Journal of Autism and Developmental Disorders*, 31, 315–325.
- Dragow, E., Halle, J. W., Ostrosky, M. M., & Habers, H. M. (1996). Using behavioral indication and functional communication training to establish an initial sign repertoire with a young child with severe disabilities. *Topics in Early Childhood Special Education*, 16, 500-521.
- Elder, L. M., Caterino, L. C., Chao, J., Shacknai, D., & De Simone, G. (2006). The efficacy of social skills treatment for children with Asperger syndrome. *Education and Treatment of Children*, 29, 635-663.
- Goldstein, A. P., & McGinnis, E. (2000). *Skill streaming the adolescent: New strategies and perspectives for teaching prosocial skills*. Champaign: Research Press.
- Gray, C., & Garand, J. (1993). Social stories: Improving responses of students with autism with accurate social information. *Focus on Autistic Behavior*, 8, 1-10.
- Gresham, F. M. (1985). Utility of cognitive-behavioral procedures for social skills training with children: A critical review. *Journal of Abnormal Child Psychology*, 13, 411-423.
- Gresham, F. M. (1988). Social skills: Conceptual and applied aspects of assessment, training, and social validation. In J. C. Witt, S. N. Elliott, & F. M. Gresham (Eds.), *Handbook of behaviour therapy in education* (pp. 523-546). New York: Plenum.
- Gresham, F. M.,
- Sugai, G., & Horner, R. H. (2001). Interpreting outcomes of social skills training for students with high incidence disabilities. *Exceptional Children*, 67, 331-344.
- Ingersoll, B., Dvortcsak, A., Whalen, C., & Sikora, D. (2005). The effects of a developmental, social-pragmatic language intervention on rate of expressive language production in young children with autistic spectrum disorders. *Focus on Autism and other Developmental Disabilities*, 20, 213-222. Page | 11 Autism Social Skills Groups



# Reference

- Klin, A., & Volkmar, F. R. (2000). Treatment and intervention guidelines for individuals with Aspergers syndrome. In A. Klin, F. R. Volkmar, & S. S. Sparrow (Eds.), *Asperger syndrome* (pp. 340–366). New York: Guilford.
- Kroeger, K. A., Schultz, J. R., Newsom, C. (2007). A comparison of two group-delivered social skills programs for young children with autism. *Journal of Autism Developmental Disorders*, 37, 808-817.
- Lopata, C., Thomeer, M. L., Volker, M. A., & Nida, R. E. (2008). Effectiveness of a manualized summer social treatment program for high-functioning children with autism spectrum disorders. *Journal of Autism Developmental Disorders*, 38, 890-904.
- Marriage, K. J., Gordon, V., & Brand, L. (1995). A social skills group for boys with Asperger's syndrome. *Australian and New Zealand Journal of Psychiatry*, 29, 58-62.
- Lopata, C., Thomeer, M. L., Volker, M. A., & Nida, R. E. (2008). Effectiveness of a manualized summer social treatment program for high-functioning children with autism spectrum disorders. *Journal of Autism Developmental Disorders*, 38, 890-904.
- Marriage, K. J., Gordon, V., & Brand, L. (1995). A social skills group for boys with Asperger's syndrome. *Australian and New Zealand Journal of Psychiatry*, 29, 58-62.
- Mathur, S. R., Kavale, K. A., Quinn, M. M., Forness, S. R., & Rutherford, R. B. Jr. (1998). Social skills interventions with students with emotional and behavioural problems: A quantitative synthesis of single-subject research. *Behavioral Disorders*, 23, 193-201.
- McCoy, K. & Hermansen, E. (2007). Video modeling for individuals with autism: A review of model types and effects. *Education and Treatment of Children*, 30, 183-213.
- Paul, R. (2003). Promoting social communication in high functioning individuals with autistic spectrum disorders. *Child and Adolescent Psychiatric Clinics*, 12, 87-106. Plaisted, K. C. (2001). Reduced generalization in autism: An alternative to weak central coherence. In J. A. Burack (Ed.), *The development of autism: Perspectives from theory and research*. Mahwah, NJ: Erlbaum.
- Quinn, M. M., Kavale, K. A., Mathur, S. R., Rutherford, R. B., & Forness, S. R. (1999). A meta-analysis of social skill interventions for students with emotional or behavioral disorders. *Journal of Emotional and Behavioural Disorders*, 7, 54- 64.
- Reichow, B., & Volkmar, F. R. (2010). Social skills interventions for individuals with autism: Evaluation for evidence-based practices within a best evidence synthesis framework. *Journal of Autism Development Disorder*, 40, 149-166. Reichow, B., Volkmar, F. R. & Cicchetti, D. V. (2008). Development of an evaluative method for determining the strength of research evidence in autism. *Journal of Autism and Developmental Disorders*, 38, 1311-1318.

# Reference

- Shafer, M. S., Egel, A. L., Neef, N. A. (1984). Training mildly handicapped peers to facilitate changes in the social interaction skills of autistic children. *Journal of Applied Behavior Analysis*, 17, 461-476.
- Solomon, M., Goodlin-Jones, B. L., & Anders, T. F. (2004). A social adjustment enhancement intervention for high functioning autism, Asperger's syndrome, and pervasive development disorder NOS. *Journal of Autism and Developmental Disorders*, 34, 649-668.
- White, W. S., Keonig, K., & Scahil, L. (2007). Social skills development in children with autism spectrum disorders: A review of the intervention research. *Journal of Autism and Development Disorders*, 37, 1858-1868.