

**‘Specialization in ICTs and Special Education: Psychopedagogy of Integration’
Postgraduate Program Studies
DEMOKRITUS UNIVERSITY OF THRACE Department of Hellenic Philology
in collaboration with
NCSR DEMOKRITOS Informatics and Telecommunications Institute**

**COMUNICATION SKILLS OF CHILDREN WITH AUTISTIC SPECTRUM
DISORDER: PARENT AND TEACHER PERCEPTIONS**

BASAMAKI DIMITRA - CHRISOVALADOU

**POSTGRADUATE
THESIS**

SUPERVISOR – COMMITTEE

- 1. ΓΑΒΡΙΗΛΙΔΟΥ ΖΩΗ
ΚΑΘΗΓΗΤΡΙΑ Τ.Ε.Φ. ΔΠΘ**
- 2. ΜΗΤΣΙΑΚΗ ΜΑΡΙΑ
ΕΠΙΚΟΥΡΗ ΚΑΘΗΓΗΤΡΙΑ Τ.Ε.Φ. ΔΠΘ**
- 3. ΔΟΣΗ ΙΦΙΓΕΝΕΙΑ
ΜΕΤΑΔΙΔΑΚΤΟΡΙΚΗ ΕΡΕΥΝΗΤΡΙΑ ΚΑΙ ΕΞΩΤΕΡΙΚΗ ΣΥΝΕΡΓΑΤΙΣ Τ.Ε.Φ.
ΔΠΘ**

ATHENS 2018

ετερογένεια ικανοτήτων και δυσκολιών, αντίστοιχη ετερογένεια ενυπάρχει και στις ικανότητες παιδιών χαμηλής και μέτριας λειτουργικότητας που φοιτούν σε δομές Ειδικής Εκπαίδευσης.

Λέξεις κλειδιά: Διαταραχές Αυτιστικού φάσματος, μέτριας- χαμηλής λειτουργικότητας, εκφραστικές ικανότητες, αντιληπτικές ικανότητες, αντιλήψεις γονέων, αντιλήψεις εκπαιδευτικών

ABSTRACT

The purpose of the present thesis is to identify teacher and parent perceptions about communication skills of moderate or low functioning children with autism. As communication considered being a core deficit for children with Autism Spectrum Disorders (ASD) many studies have focused in the detection and intervention in communication skills of these children. However few of them focus on low to moderate functioning children with ASD, who are either non-verbal or limited verbal children. Information was gathered with the use of a questionnaire regarding the perceptions of 43 parents and 43 teachers about their child/adolescent communication skills. According to results there is no significant effects of sex in the communication skills of children with ASD, suggesting similar receptive and expressive skills and communication in males and females. Parents reported better expressive skills for the youngest group (7-9 years old) compared to the older (13-16 years old). On the other hand, teacher reported better results for the younger group compared to the older one, only for joint attention skill. When receptive and expressive skills were compared parents and teachers reported better skills in receptive language than expressive language. In expressive domain, social skills were the most impaired. Parent and teacher perceptions had statistically significant differences only in the expressive skills of request and joint attention and in the domain of communication. Finally the most frequent ways of communication of these children, except for the use of limited number of words, was adult's guidance, body movements, vocalizations and gestures, albeit with great variations according to parent and teacher reports.

KEY WORDS: autism spectrum disorder; expressive/receptive skills; parent/teacher perceptions; moderate to low functioning autism

References

American Psychiatric Association (2013). *Diagnostic and statistical manual of mental disorders*. (5th ed.) Arlington, VA: American Psychiatric Association.

Adrien, J. L., Rossignol-Deletang, N., Martineau, J., Couturier, G. & Barthelemy, C. (2001). Regulation of cognitive activity and early communication development in young autistic, mentally retarded and young normal children. *Developmental Psychobiology*, 39, 124–136.

Alexander, D., Wetherby, A. & Prizant, B. (1997). The emergence of repair strategies in infants and toddlers. *Seminars in Speech and Language*, 18, 197–212.

American Psychiatric Association (2000). *DSM-IV-TR: Diagnostic and statistical manual of mental disorders, text revision*: American Psychiatric Association.

Banach, R., Thompson, A., Szatmari, P., Goldberg, J., Tuff, L., Zwaigenbaum, L. et al. (2009). Brief Report: Relationship between non-verbal IQ and gender in autism. *Journal of Autism and Developmental Disorders*, 39(1), 188–193.

Barnhill, G. P., Hagiwara, T., Myles, B. S., Simpson, R. L., Brick, M. L. & Griswold, D. E. (2000). Parent, teacher, and self-report of problem and adaptive behaviors in children and adolescents with Asperger. *Diagnostique*, 25(2), 147–167.

Bates, E. (1979). Intentions, conventions, and symbols. Στο E. Bates, L. Benigni, I. Bretherton, L. Camaioni & V. Volterra (Eds.), *The emergence of symbols: Cognition and communication in infancy* (σελ. 33–68). New York, NY: Academic.

Bates, E., Benigni, I., Bretherton, I., Camaioni, L. & Volterra, V. (1979). *The emergence of symbols: Cognition and communication in infancy*. New York: Academic Press.

Bates, E., Camaioni, L. & Volterra, V. (1975). The acquisition of performatives prior to speech. *Merrill-Palmer Quarterly*, 21(3), 205–226.

Berstein, D. & Tiegerman, E. (1993). *Language and communication disorders in children*. Columbus, O.H: Macmillan Publishing Company.

Bishop, D. V. & Baird, G. (2001). Parent and teacher report of pragmatic aspects of communication: Use of the Children's Communication Checklist in a clinical setting. *Developmental Medicine & Child Neurology*, 43(12), 809–818.

Βογινδρούκας, Ι., Καραντάνος, Γ., Καμπούρογλου, Μ. & Παπαγεωργίου, Β. (2003). *Δοκίμια: Αυτισμός-Διάχυτες διαταραχές της ανάπτυξης*. Ίδρυμα για το παιδί «Η Παμμακάριστος».

Boukhris, T., Sheehy, O., Mottron, L. & Bérard, A. (2016). Antidepressant use during pregnancy and the risk of autism spectrum disorder in children. *JAMA Pediatr*, 170(2), 117–124.

Boucher, J., Mayes, A. & Bigham, S. (2007). Memory, language and intellectual ability in low-functioning autism. Στο J. Boucher & D. Bowler (Eds.), *Memory in autism: Theory and evidence* (σελ. 268–290). Cambridge, UK: Cambridge University Press.

Braddock, B. A., Bodor, R., Mueller, K. & Bashinski, S. M. (2017). Parent perceptions of the potential communicative acts of young children with autism spectrum disorder, *Journal of Intellectual & Developmental Disability*, 42(3), 259-268.

Braddock, B. A., Pickett, C., Ezzelgot, J. et al. (2015). Potential communicative acts in children with autism spectrum disorders. *Developmental Neurorehabilitation*, 18(4), 260-271.

Brady, N., C. & Halle, J. (2002). Breakdown and repairs in conversations between beginning AAC users and their partners. Στο J. Reichle, D. R. Beukelman, & J. C. Light (Eds.), *Exemplary practices for beginning communicators: Implications for AAC* (σελ. 323-351). Baltimore: Paul H. Brookes.

Brady, N. C., Marquis, J., Fleming, K., & McLean, L. (2004). Prelinguistic predictors of language growth in children with developmental disabilities. *Journal of Speech, Language, and Hearing Research*, 47(3), 663-677.

Brady, N.C., Mclean, J.E., Mclean, L.K. & Johnston, S. (1995). Initiation and repair of intentional communication acts by adults with severe to profound cognitive disabilities. *Journal of Speech and Hearing Research*, 38(6), 1334–1348.

Brignell, A., Morgan, T A., Woolfenden, S. et al. A systematic review and meta-analysis of the prognosis of language outcomes for individuals with autism spectrum disorder. *Autism & Developmental Language Impairments*, 3, 1-19. Διαθέσιμο στο: https://www.researchgate.net/publication/324915369_A_systematic_review_and_meta-analysis_of_the_prognosis_of_language_outcomes_for_individuals_with_autism_spectrum_disorder.

Bzoch, K. R. & League, R. (1991). *Receptive-Expressive Emergent Language Scale* (2nd ed.). Austin, TX: Pro-ed.

Bzoch, K. R., & League, R. (1971). *Receptive-Expressive Emergent Language Scale*. Baltimore: University Park Press.

Cafiero, J. M. (2001). The effect of an augmentative communication intervention on the communication, behaviour and academic program of an adolescent with autism. *Focus on Autism and other Developmental Disabilities*, 16(3), 179-189.

Camaioni, L., Perucchini, P., Muratori, F., Parrini, B. & Cesari, A. (2003). The communicative use of pointing in autism: Developmental profile and factors related to change. *European Psychiatry*, 18(1), 6–12.

Carr, E. G. & Durand, M. V. (1985). Reducing behavior problems through functional communication training. *Journal of Applied Behavior Analysis*, 18(2), 111-126.

Carter, A. S., Black, D. O., Tewani, S., Connolly, C. E., Kadlec, M. B., & Tager-Flusberg, H. (2007). Sex differences in toddlers with autism spectrum disorders. *Journal of Autism and Developmental Disorders*, 37(1), 86-97.

Centers for Disease Control and Prevention. (2014). Prevalence of autism spectrum disorder among children aged 8 years – autism and developmental disabilities monitoring network, 11 sites, United States, 2010. *MMWR Surveillance Summaries*, 63(2), 1-22.

Charman, T., Baron-Cohen, S., Swettenham, J., Baird, G., Drew, A. & Cox, A. (2003). Predicting language outcome in infants with autism and pervasive developmental disorder. *Int J Lang Commun Disord*, 38(3), 265–85.

Chawarska, K. & Volkmar, F. (2008). *Autism spectrum disorders in infants and toddlers*. New York: Guilford.

Chiang, C.-H., Song, W.-T., Lin, T.-L., & Rogers, S. J. (2008). Nonverbal communication skills in young children with autism. *Journal of Autism and Developmental Disorders*, 38(10), 1898–1906.

Colgan, S. E., Lanter, E., McComish, C., Watson, L. R., Crais, E. R. & Baranek, G. T. (2006). Analysis of social interaction gestures in infants with autism. *Child Neuropsychology*, 12(4-5), 307–319.

Constantino, J. N., Davis, S. A., Todd, R. D., Schindler, M. K., Gross, M. M., Brophy, S. L. et al. (2003). Validation of a brief quantitative measure of autistic traits: Comparison of the Social Responsiveness Scale with the Autism Diagnostic Interview—Revised. *Journal of Autism and Developmental Disorders*, 33(4), 427–433.

Crîșan C. & Stan, C. (2013). The efficiency of LCSMA in reducing challenging behaviors in children with autism. *In Journal of Cognitive and Behavioral Psychotherapies*, 13(2), 421-435.

Cristensen, D. L., Baio, J., Braun, K. V., et al. (2012). Prevalence of autism spectrum disorders—autism and developmental disabilities monitoring network, 14 sites, United States, 2008. *MMWR Surveill Summ*, 6(1), 1-19.

Dawson G., Hill, D., Spencer, A., Galpert, L. & Watson L. (1990). Affective exchanges between young autistic children and their mothers. *J Abnorm Child Psychol*, 18(3), 335–45.

Dawson, G., Toth, K., Abbott, R., Osterling, J., Munson, J., Estes, A. & Liaw, J. (2004). Early social attention impairments in autism: Social orienting, joint attention, and attention to distress. *Developmental Psychology*, 40(2), 271–283.

De Los Reyes, A. & Kazdin, A. E. (2005). Informant discrepancies in the assessment of childhood psychopathology: A critical review, theoretical framework, and recommendations for further study. *Psychological Bulletin*, 131(4), 483-509.

De Los Reyes, A. (2011). Introduction to the special section: More than measurement error: Discovering meaning behind informant discrepancies in clinical assessments of children and adolescents. *Journal of Clinical Child and Adolescent Psychology*, 40(1), 1–9.

Dickson, K. S., Suhrheinrich, J., Rieth, S. R. & Stahmer, A. C. (2017). Parent and teacher concordance of child outcomes for youth with autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 48(5), 1423-1435.

Drew, A., Baird, G., Taylor, E., Milne, E. & Charman, T. (2007). The Social Communication Assessment for Toddlers with Autism (SCATA): An instrument to measure the frequency, form and function of communication in toddlers with autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 37(4), 648–666.

Dunlap, G., Robbins, F. & Darrow, M. (1994). Parents' reports of their children's challenging behaviors: Results of a statewide survey. *Mental Retardation*, 32(3), 206–212.

Erbas, D. (2005). Responses to communication breakdowns by nonverbal children with developmental disabilities. *Education and Training in Developmental Disabilities*, 40(2), 145-157.

Foley Nicpon, M., Doobay, A. F. & Assouline, S. G. (2010). Parent, teacher, and self perceptions of psychosocial functioning in intellectually gifted children and adolescents with autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 40(8), 1028–1038.

Goldstein, S. , Naglieri, J.A. & Ozonoff, S. (2009). *Assessment of Autism Spectrum Disorders* (179-214). London: Guildford Press. Ανακτήθηκε 1/8/2018, από [https://books.google.gr/books?hl=en&lr=&id=rrk8DwAAQBAJ&oi=fnd&pg=PP1&dq=Assessment+of+Autism+Spectrum+Disorders+by+S.+Goldstein,+J.A.+Naglieri+and+S.+Ozonoff+\(Eds\).+London:&ots=mh-NaVqh&sig=T8VK7Na4lIJahtaqxUASOQRsifl&redir_esc=y#v=onepage&q=Assessment%20of%20Autism%20Spectrum%20Disorders%20by%20S.%20Goldstein%2C%20J.A.%20Naglieri%20and%20S.%20Ozonoff%20\(Eds\).%20London%3A&f=false](https://books.google.gr/books?hl=en&lr=&id=rrk8DwAAQBAJ&oi=fnd&pg=PP1&dq=Assessment+of+Autism+Spectrum+Disorders+by+S.+Goldstein,+J.A.+Naglieri+and+S.+Ozonoff+(Eds).+London:&ots=mh-NaVqh&sig=T8VK7Na4lIJahtaqxUASOQRsifl&redir_esc=y#v=onepage&q=Assessment%20of%20Autism%20Spectrum%20Disorders%20by%20S.%20Goldstein%2C%20J.A.%20Naglieri%20and%20S.%20Ozonoff%20(Eds).%20London%3A&f=false)

Haebig, E., McDuffie, A. & Weismer, S. E. (2013). Brief report: Parent verbal responsiveness and language development in toddlers on the autism spectrum. *Journal of Autism and Developmental Disorders*, 43(9), 2218-2227.

Halliday, M. A. (1977). *Learning how to mean: Explorations in the development of language*. New York: Elsevier.

Hedrick, D. L., Prather, E. M. & Tobin, A. R. (1984). *Sequenced Inventory of Communication Development*. Seattle: University of Washington Press

Hinde R. A., (1972). *Non verbal communication*. Cambridge University Press.

Howlin, P., Goode, S., Hutton, J. et al. (2004). Adult outcome for children with autism. *J Child Psychol Psychiatry*, 45(2), 212–29.

Hudry, K., Leadbitter, K., Temple, K., Slonims, V., McConachie, H., Aldred, C. et al. (2010). Preschoolers with autism show greater impairment in receptive compared with expressive language abilities. *International Journal of Language and Communication Disorders*, 45(6), 681–690.

Iacono, T., Carter, M., & Hook, J. (1998). Identification of intentional communication in students with severe multiple disabilities. *AAC: Augmentative and Alternative Communication*, 14(2), 102-114.

Jepsen, M. I., Gray, K. M. & Taffe, J. R. (2012). Agreement in multiinformant assessment of behaviour and emotional problems and social functioning in adolescents with autistic and Asperger's disorder. *Research in Autism Spectrum Disorders*, 6(3), 1091–1098.

Καμπούρογλου, Μ. & Παπαντωνίου, Μ. (2003). Ανάπτυξη και Διαταραχές επικοινωνίας και λόγου στον αυτισμό. Κατηγορία αναπηρίας: Αυτισμός. ΕΠΕΑΕΚ: Πρόσβαση για όλους.

Kasari, C., Brady, N., Lord, C. & Tager-Flusberg, H. (2013). Assessing the minimally verbal school-aged child with autism spectrum disorder. *Autism Research*, 6(6), 479–493.

Kasari, C., Sigman, M., Mundy, P. & Yirmiya, N. (1990). Affective sharing in the context of joint attention interactions of normal, autistic, and mentally retarded children. *J Autism Dev Disord*, 20(1), 87–100.

Keen, D. (2005). The use of non-verbal repair strategies by children with autism. *Research in Developmental Disabilities*, 26(3), 243- 254.

Keen, D. (2003). Communicative repair strategies and problem behaviours of children with autism. *International Journal of Disability, Development and Education*, 50(1), 53-64.

Keen, D., Sigafoos, J., & Woodyatt, G. (2005). Teacher responses to the communicative attempts of children with autism. *Journal of Developmental and Physical Disabilities*, 17(1), 19-33.

Keen, D., Sigafoos, J. & Woodyatt, G. (2001). Replacing prelinguistic behaviors with functional communication. *Journal of Autism and Developmental Disorders*, 31(4), 385-398.

Keen, D., Woodyatt, G. & Sigafoos, J. (2002). Verifying teacher perceptions of the potential communicative acts of children with autism. *Communication Disorders Quarterly*, 23(3), 131-140.

Kjelgaard, M. M. & Tager-Flusberg, H. (2001). An investigation of language impairment in autism: Implications for genetic subgroups. *Language and Cognitive Processes*, 16(2–3), 287–308.

Kjellmer, L., Hedvall, A., Fernell, E., Gillberg, C. & Norellgen, F. (2012). Language and communication skills in preschool children with autism spectrum disorders: Contribution of cognition, severity of autism symptoms, and adaptive functioning to the variability. *Research in Developmental Disabilities*, 33(1), 172-180.

Klin, A., Saulnier, C. A., Sparrow, S. S., Cicchetti, D. V., Volkmar, F., R. & Lord, C. (2007). Social and communication abilities and disabilities in higher functioning individuals with autism spectrum disorders: The Vineland and the ADOS. *Journal of Autism and Developmental Disorders*, 37(4), 748–759.

Knaus, T. A., Silver, M. A., Dominick, C. K., Schuring, D. M., Shaffer, N., Lindgren, A. K. et al. (2009). Age-Related Changes in the Anatomy of Language Regions in Autism Spectrum Disorder. *Brain Imaging and Behavior*, 3, 51-63.

Konstantareas, M. M. & Papageorgiou, V. (2006). Effects of temperament, symptom severity and level of functioning on maternal stress in Greek children and youth with ASD. *Autism*, 10(6), 593-607.

Kwok, E. Y., Brown, H. M., Smyth, R. E., & Cardy, J. O. (2015). Meta-analysis of receptive and expressive language skills in autism spectrum disorder. *Res. Autism Spect. Disord.* 9, 202- 222.

Landa, R. (2007). Early communication development and intervention for children with autism. *Mental Retardation and Developmental Disabilities Research Reviews*, 13(1), 16–25.

Lane, B. R., Paynter, J. & Sharman, R. (2013). Parent and teacher ratings of adaptive and challenging behaviours in young children with autism spectrum disorders. *Research in Autism Spectrum Disorders*, 7(10), 1196–1203.

Lord, C. & Paul, R. (1997). Language and communication in autism. Στο D. J. Cohen & F. R. Volkmar (Eds.), *Handbook of autism and pervasive development disorders*, 2nd edition. (460-483). New York: John Wiley.

Lord, C., Risi, S. & Pickles, A. (2004). Trajectory of Language Development in Autistic Spectrum Disorders. Στο: M. L. Rice & S. F. Warren (Eds.), *Developmental language disorders: From phenotypes to etiologies* (σελ. 7-29). Mahwah, NJ, US: Lawrence Erlbaum Associates Publishers.

Lord, C., Schopler, E. & Revicki, D. (1982). Sex differences in autism. *Journal of Autism and Developmental Disorders*, 12(4), 317–330.

Lord, C., Shulman, C. & DiLavore, P. (2004). Regression and word loss in autism spectrum disorder. *Journal of Child Psychology and Psychiatry*, 45(5), 936–955.

Lopata, C., Donnelly, J., Jordan, A. & Thomeer, M. (2016). Brief Report: Parent-teacher discrepancies on the developmental social disorders scale (BASC-2) in the assessment of highfunctioning children with ASD. *Journal of Autism and Developmental Disabilities*, 46(9), 3183–3189.

Lucushyn, J., Dunlap, G., & Albin, R. (Eds.). (2002). *Families and positive behavior support*. Baltimore: Paul H Brookes.

Luyster, R. J., Kadlec, M. B., Carter, A. & Tager-Flusberg, H. (2008). Language assessment and development in toddlers with autism spectrum disorders. *Journal of Autism and Developmental Disorders*, 38(8), 1426–1438.

Maljaars, J., Noens, I., Jansen, R., Scholte, E. & Van Berckelaer-Onnes, I. (2011). Intentional communication in nonverbal and verbal low-functioning children with autism. *Journal of Communication Disorders*, 44(6), 601- 614.

Maljaars, J., Noens, I., Scholte, E. & Berckelaer-Onnes, I. (2012). Language in low-functioning children with autistic disorder: Differences between receptive and expressive skills and concurrent predictors of language. *Journal of Autism and Developmental Disorders*, 42(10), 2181–2191.

Mandic-Maravic, V., Pejovic-Milovancevic, M., Mitkovic-Voncina, M., Kostić, M., Aleksić-Hil, O., Radosavljev-Kirčanski, J., et al. (2015). Sex Differences in Autism Spectrum Disorders: Does Sex Moderate the Pathway from Clinical Symptoms to Adaptive Behavior? *Scientific reports*, 5, 10418.

Mawhood, L., Howlin, P. & Rutter, M. (2000). Autism and developmental receptive language disorder: A comparative follow-up in early adulthood. I. Cognitive and language outcomes. *J Child Psychol Psychiatry*, 41(5), 547–559.

Ministry of Health. (2013). *Autism*. Ανακτήθηκε 12,4,2018, από www.health.govt.nz

Mirenda, P. (1997). Supporting individuals with challenging behavior through functional communication training and AAC: Research review. *Augmentative and Alternative Communication*, 13(4), 207–225.

Mohamed Fel, B., Zaky, E.A., El-Sayed, A.B., Elhossieny, R.M., Zahra, S.S., Salah Eldin W. , et al. (2015). Assessment of hair aluminum lead, and mercury in a sample of autistic Egyptian children: environmental risk factors of heavy metals in autism. *Behav. Neurol.*, 2015 (2015), 1-9.

Mullen, E. (1995). *Mullen Scales of Early Learning*. Circle Pines, MN: American Guidance Service.

Mundy, P., Sigman, M. & Kasari, C. (1994). Joint attention, developmental level, and symptom presentation in autism. *Development and Psychopathology*, 6(3), 389–401.

Murphy, J., Markova, I., Moodie, E., Scott, J. & Boa, S. (1995). Augmentative and alternative communication systems used by people with cerebral palsy in Scotland: Demographic survey. *Augmentative and Alternative Communication*, 11(1), 26-36.

Murray, D. S., Ruble, L. A., Willis, H. & Molloy, C. A. (2009). Parent and teacher report of social skills in children with autism spectrum disorders. *Language, Speech, and Hearing Services in Schools*, 40(2), 109–115.

National Research Council (2001). *Educating children with autism*. Washington, D.C.: National Academy Press.

Nicholas, J. S., Charles, J. M., Carpenter, L. A., King, L. B., Jenner, W., & Spratt, E. G. (2008). Prevalence and characteristics of children with autism-spectrum disorders. *Annals of Epidemiology*, 18(2), 130-136.

Noens, I., & Van Berckelaer-Onnes, I. A. (2005). Captured by details: Sense-making, language and communication in autism. *Journal of Communication Disorders*, 38(2), 123–141.

Nordin, V. & Gillberg, C. (1998). The long-term course of autistic disorders: Update on follow-up studies. *Acta Psychiatr Scand*, 97(2), 99 –108.

Osterling, J. & Dawson, G. (1994). Early recognition of children with autism: a study of first birthday home videotapes. *J Autism Dev Disord*, 24(3), 247–57.

Paul, R. (2008). Interventions to Improve Communication in Autism. *Child Adolesc Psychiatric Clin N A*, 17, 835-856.

Rapin, I., Steinberg, M. & Waterhouse, L. (1999). Consistency in the ratings of behaviors of communicatively impaired autistic and nonautistic preschool children. *European Child & Adolescent Psychiatry*, 8(3), 214–224.

Ravet, J. (2011). Inclusive/exclusive? Contradictory perspectives on autism and inclusion: the case for an integrative position. *International Journal of Inclusive Education*, 15, 667-682.

Reichle, J. (1997). Communication intervention with persons who have severe disabilities. *Journal of Special Education*, 31, 110–134.

Reinhardt, V. P., Wetherby, A. M., & Schatschneider, C. (2015). Examination of Sex Differences in a Large Sample of Young Children with Autism Spectrum Disorder and Typical Development. *Journal of Autism and Developmental Disorders*, 45(3), 697–706.

Rivet, T. T. (2010). *Gender differences in core symptomatology in autism spectrum disorders across the lifespan*. Αδημοσίευτη Διδακτορική Διατριβή, Southeastern Louisiana University. 20110. Διαθέσιμο στο: https://digitalcommons.lsu.edu/gradschool_dissertations/2273

Rowland, C. (2004). *Communication matrix . . . especially for parents*. Portland: Oregon Health & Science University, Design to Learn Projects.

Schlosser, R.W. & Wendt, O. (2008). Effects of augmentative and alternative communication intervention on speech production in children with autism: A systematic review. *American Journal of Speech-Language Pathology*, 17(3), 212-230.

Schoen L, et al. Acoustic measurements of prelinguistic vocalizations in toddlers with ASD. Presented at *Symposium for research in child language disorders*. June, 2007: Madison.

Sealey, L.A., Hughes, B.W., Sriskanda, A.N., Guest, J.R., Gibson, A.D., Johnson-Williams, et al. 2016. Environmental factors in the development of autism spectrum disorders. *Environ. Int.*, 88, 288–298.

Seltzer, M. M., Krauss, M. W., Shattuck, P. T. et al. (2003). The symptoms of autism spectrum disorders in adolescence and adulthood. *J Autism Dev Disord* 33(6), 565–581.

Sheinkopf, J. S., Mundy, P., Kimbrough Oller, D. & Steffens, M. (2000). Vocal atypicalities of preverbal autistic children. *J Autism Dev Disord*, 30(4), 345–54.

Shumway, S. & Wetherby, A., M. (2009). Communicative acts of children with autism spectrum disorders in the second year of life. *Journal of Speech, Language, and Hearing Research*, 52(5), 1139–1156.

Shumway, S., & Wetherby, A. M. (2009). Communicative acts of children with autism spectrum disorders in the second year of life. *Journal of Speech, Language, and Hearing Research*, 52(5), 1139–1156.

Siegel-Causey, E. & Allinder, R. M. (1998). Using alternative assessment for students with severe disabilities: Alignment with best practices. *Educ. Train. Ment. Retard. Dev.Disabil.* 33, 168–178.

Sigafoos, J., Arthur-Kelly, M., & Butterfield, N. (2006). *Enhancing everyday communication with children with disabilities*. Baltimore, MD: Brookes Publishing Company.

Sigafoos, J., Arthur, M. & O'Reilly, M. F. (2003). *Challenging behavior and developmental disability*. London: Whurr.

Sigafoos, J. & Pennell, D. (1995). Parent and teacher assessment of receptive and expressive language in preschool children with developmental disabilities. *Education and Training in Mental Retardation and Developmental Disabilities*, 30, 329–335.

Sigafoos, J., Woodyatt, G., Keen, D., Tait, K., Tucker, M., Roberts-Pennell, D. et al. (2000). Identifying potential communicative acts in children with developmental and physical disabilities. *Communication Disorders Quarterly*, 21(2), 77-86.

Snell, M. E., Chen, L.-Y., Allaire, J. H. & Park, E. (2008). Communication breakdown at home and at school in young children with cerebral palsy and severe disabilities. *Research and Practice for Persons with Severe Disabilities*, 33(1-2), 25–36.

Sparrow, S., Balla, D. & Cicchetti, D. (1984). *Vineland Adaptive Behavior Scales*. Circle Pines, MN: American Guidance Service.

Sparrow, S. S., Cicchetti, D. V. & Balla, D. A. (2005). *Vineland adaptive behavior scales: (Vineland II), survey interview form/caregiver rating form*. Livonia, MN: Pearson Assessments.

Stadnick, N., Chlebowski, C. & Brookman-Frazee, L. (2017). Caregiver- teacher concordance of challenging behaviors in children with autism spectrum disorder served in community mental health settings. *Journal of Autism and Developmental Disorders*, 47, 1780-1790.

Stampoltzis, A. & Michailidi, I. (2016). Parental Perceptions of the Diagnostic Process of Autism Spectrum Disorders in a Greek Sample. *Austin J Autism & Relat Disabil*. 2(5), 1035.

Stephenson, J. & Dowrick, M. (2005). Parents' perspectives on the communication skills of their children with severe disabilities, *Journal of Intellectual and Developmental Disability*, 30(2), 75-85.

Stevens, M. L. (2015). *Identifying and Validating Prelinguistic Communicative Forms and Functions in Children with Developmental Disability*. Αδημοσίευτη Διδακτορική Διατριβή. University of Wellington. Wellington. 2015.

Stone, W. L., Ousley, O. Y., Yoder, P. J., Hogan, K. L. & Hepburn, S. L. (1997). Nonverbal communication in two- and three-year-old children with autism. *Journal of Autism and Developmental Disorders*, 27(6), 677–696.

Szatmari, P., Archer, L., Fisman, S. & Streiner, D. L. (1994). Parent and teacher agreement in the assessment of pervasive developmental disorders. *Journal of Autism and Developmental Disorders*, 24(6), 703–717.

Tager-Flusberg, H. & Kasari, C. (2013). Minimally-verbal school-aged children with autism spectrum disorder: The neglected end of the spectrum. *Autism Res.*, 6(6), 468–478.

Tager-Flusberg, H., Paul, R. & Lord, C. E. (2005). Language and communication in autism. Στο: F. Volkmar, R. Paul, A Klin & D. J. Cohen, (eds). *Handbook of autism and pervasive developmental disorder*. (3rd ed. Vol. 1, σελ. 335–364). New York: Wiley.

Thurm, A., Lord, C., Lee, L. C. & Newschaffer, C. (2007). Predictors of language acquisition in preschool children with autism spectrum disorders. *Journal of Autism and Developmental Disorders*, 37(9), 1721–1734.

Tomanik, S., Harris, G. & Hawkins, J. (2004). The relationship between behaviours exhibited by children with autism and maternal stress. *Journal of Intellectual & Developmental Disability*, 29(1), 16-26.

Voelker, S. L., Shore, D. L., Lee, C. H., & Szuskiewicz, T. A. (2000). Congruence in parent and teacher ratings of adaptive behavior of low-functioning children. *Journal of Developmental and Physical Disabilities*, 12(4), 367–376.

Weismer, S. E., Lord, C. & Esler, A. (2010). Early language patterns of toddlers on the autism spectrum compared to toddlers with developmental delay. *Journal of Autism and Developmental Disorders*, 40(10), 1259–1273.

Wetherby, A., Alexander, D., & Prinzant, B. (1998). The ontogeny and role of repair strategies. Στο A.M.WETHERBY, S.F.WARREN & J. REICHLE (Eds.), *Transitions in prelinguistic communication* (Vol. 7, σελ. 135–159). Baltimore: Paul H. Brookes.

Wetherby, A. & Prizant, B. (1993). *Communication and Symbolic Behavior Scales manual*. Chicago: Applied Symbolix.

Wetherby, A., Prizant, B. & Hutchinson, T. (1998). Communicative, social/affective, and symbolic profiles of young children with autism and pervasive developmental disorders. *Am J Speech Lang Pathol*, 7(2), 79–91.

Wetherby, A. & Prutting, C. (1984). Profiles of communicative and cognitive-social abilities in autistic children. *J Speech Hear Res*, 27(3), 364–77.

Wetherby, A. M., Reichle, J. & Pierce, P. L. (1998). The transition to symbolic communication. Στο A. M. Wetherby, S. F. Warren, & J. Reichle (Eds.), *Transitions in prelinguistic communication. Communication and language intervention series* (Vol. 7, σελ. 197–230). Baltimore, MD: Brookes.

Wetherby, A. M., Schuler A.L. & Prizant, B. M. (1997). Enhancing Language and Communication Development: Theoretical Foundations. Στο D.J. Cohen & F.R. Volkmar, F.R., (Eds) *Handbook of Autism and Pervasive Developmental Disorders*, (σελ. 513-538), John Wiley & Sons, INC: New York.

Wetherby, A., Woods, J., Allen, L., Cleary, J., Dickinson, H. & Lord, C. (2004). Early indicators of autism spectrum disorders in the second year of life. *Journal of Autism and Developmental Disorders*, 34(5), 473–493.

Yoder, P. J., McCathren, R. B., Warren, S. F. & Watson, A. L. (2001). Important distinctions in measuring maternal responses to communication in prelinguistic children with disabilities. *Communication Disorders Quarterly*, 22(3), 135-147.