

Giacomo Vivanti · Ed Duncan
Geraldine Dawson · Sally J. Rogers

Implementing the Group-Based Early Start Denver Model for Preschoolers with Autism

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Giacomo Vivanti
AJ Drexel Autism Institute
Drexel University
Philadelphia, PA
USA

Geraldine Dawson
Medical Center
Duke University Medical Center
Durham, NC
USA

Ed Duncan
Autism Specific Early Learning and Care
Center
La Trobe University
Melbourne, VC
Australia

Sally J. Rogers
The MIND Institute, University of California
Davis Medical Center
Sacramento, CA
USA

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Foreword

The Early Start Denver Model (ESDM) was introduced to Australia in 2009, when Prof. Sally Rogers, together with Dr. Cynthia Zierhut and Dr. Laurie Vismara, graciously accepted my invitation to travel here to train three teams. I had observed delivery of the ESDM on my visit to the MIND Institute at University of California Davis in 2007 and was aware of the developing evidence base underpinning it. At that time, it was the only comprehensive early intervention approach suited for infants as young as 12 months of age who were developing autism. The need for an intervention approach designed for very young children was growing in Melbourne given our early identification work at La Trobe University using Social Attention and Communication Surveillance, which had commenced in 2006.

In 2010, the federally funded Victorian Autism Specific Early Learning and Care Centre was established at La Trobe University. Named ‘The Margot Prior Wing’ (after distinguished La Trobe University Alumni and leading autism researcher in Australia, Professor Margot Prior) of the long-standing La Trobe Community Children’s Centre, children with autism were to receive early intervention within a long-day care setting. The Margot Prior Wing provided the ideal environment for the implementation of the ESDM where early childhood educators and care professionals were to work alongside allied health professionals to deliver early intervention in a group setting. Professor Rogers thus returned to Melbourne to train this team.

Reaping benefit from Prof. Rogers own team, Dr. Giacomo Vivanti and Dr. Cynthia Zierhut joined the Victorian ASELCC to establish and lead the research and implementation of a sustainable group-based ESDM program. The program has, and continues to, benefit numerous families and their children in Melbourne. These children make substantial gains alongside their peers whom they befriend and, together, become a community. Their outcomes have been reported in a number of scientific publications, and without them and the staff who deliver their therapy, this manual would not have been possible.

The outstanding transdisciplinary team at the Margot Prior Wing have fine-tuned and adapted the group-based ESDM for our young clients over many years, and it is upon their stellar work that this manual is based. I strongly recommend it to you.

Cheryl Dissanayake, Ph.D., MAPS
Professor & Director
Olga Tennison Autism Research Centre

Acknowledgments

This book emerged from the interest and enthusiasm sparked by the Victorian ASELCC autism program based at La Trobe University. The team of educators and clinicians who, under the guidance of the developers of the Early Start Denver Model, conducted the work documented here include (in alphabetical order) Kristy Capes, Jessica Feary, Carlyne Jones, Harpreet Kaur Ahluwalia, Liz Kirby, Benaaz Master, Jenny Mayes, Dianna Pell, Katherine Pye, Harshinee Rajapakse, Jennifer Reynolds, Shannon Upson, and Cynthia Zierhut, who first came up with the idea of the book back in 2012. Being part of this talented team was a life-changing professional and personal experience.

Additionally, we wish to thank Jean Herbison, Diane Osaki, Judy Reaven, Terry Katz, and Terry Hall for all the work they did to develop the original Denver Model group model and produce the manual for it.

A special thanks goes to the research team at the Olga Tennison Autism Research Centre and to Prof. Margot Prior for her constant encouragement and support.

Finally, we wish to acknowledge the children and families that we had the privilege to work with at the Victorian ASELCC—they enabled us to learn and grow together.

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Authors and Contributors

About the Authors

Giacomo Vivanti, Ph.D. is an Assistant Professor in the Early Detection and Intervention Research Program at the A.J. Drexel Autism Institute, Drexel University, Philadelphia. His previous experience includes a visiting fellowship at the Yale Child Study Center and a postdoctoral fellowship at the University of California Davis MIND Institute under the mentorship of Dr. Sally J. Rogers. During 2010, he became a research fellow at the Olga Tennison Autism Research Centre in Melbourne, Australia, where he worked on a federally funded five-year project on the implementation of the Early Start Denver Model (ESDM) in a group-based early intervention setting. Dr. Vivanti serves on the editorial board of the *Journal of Autism and Developmental Disorders* and the *Encyclopedia of Autism Spectrum Disorders*. He is also a member of the Department of the Health Committee to establish evidence-based guidelines for autism treatment in Italy, and a certified ESDM therapist and trainer. He is the author of approximately 50 peer-reviewed journal articles and book chapters about autism spectrum disorder.

Ed Duncan, B.S., M.B.A. is a clinical director of the Autism Specific Early Learning and Care Centre (ASELCC) at La Trobe University, Melbourne, Australia. Ed has worked at this federally funded service on the implementation of the Early Start Denver Model in a group-based early intervention program since it began in 2010. His previous experiences include working as a manager and speech pathologist in several nonprofit organizations, specializing in working with young children with autism who are minimally verbal. He has held representative positions with AGOSCI (an organization supporting the needs of people with complex communication needs) and more recently joined the Australian National Disability Insurance Agency. Mr. Duncan has contributed scientific articles to the *Journal of Autism and Developmental Disorders* and entries within the *Encyclopedia of Autism Spectrum Disorders*.

Geraldine Dawson, Ph.D. is a Professor, Departments of Psychiatry, Pediatrics, and Psychology and Neuroscience, Duke University. She is the director of the Duke Center for Autism and Brain Development, where she oversees interdisciplinary autism research and clinical services for individuals with autism spectrum disorder. She has published extensively on early detection, brain development, and treatment of autism. Dawson is the president of the International Society for Autism Research (2015–2017) and serves on the NIH Interagency Autism Coordinating Committee, which develops the federal strategic plan for autism research. Dawson received a Ph.D. in Developmental and Child Clinical Psychology from University of Washington and completed a clinical internship at UCLA.

Sally J. Rogers, Ph.D. is a developmental psychologist, clinician, professor of Psychiatry and Behavioral Sciences, and director of Training and Mentoring at the MIND Institute, University of California Davis. She has been the principal investigator of several NIH funded multisite autism research projects, including a 10-year CPEA program project and two funded Autism Centers of Excellence (ACE) network projects. She has served as a president of the International Society for Autism Research, an associate editor of the journal *Autism Research*, a member of the Autism Speaks Global Autism Public Health Initiative, a fellow of the American Psychological Association, Division 33, and a member of the Autism, PDD, and Other Developmental Disorders Workgroup for the DSM 5. The Early Start Denver Model that she developed with Geri Dawson and other colleagues at University of Colorado Health Sciences Center, University of Washington, and University of California Davis is internationally known and recognized by Time.com and Autism Speaks as one of the 10 most important scientific findings of 2012.

Contributors

Kristy Capes, B.Ed. ESDM Trainer, Senior Teacher and Manager of the Autism Playmates Program, Autism Specific Early Learning and Care Centre, La Trobe University, Melbourne, Australia

Jess Feary Occupational Therapist, ESDM Trainer, ESDM Training Manager, Autism Specific Early Learning and Care Centre, La Trobe University, Melbourne, Australia

Cynthia Zierhut, Ph.D. Clinical Supervisor, Early Start Laboratory, UC Davis MIND Institute Senior Trainer, Early Start Denver Model Training Program, The MIND Institute, Sacramento, CA, USA

Chapter 1

Early Learning in Autism

Giacomo Vivanti, Geraldine Dawson and Sally J. Rogers

Why is learning so difficult for many children with autism? And how can we teach them so that they learn more easily? The first step to answering these questions is to consider how children without autism learn from their caregivers and their peers during early childhood.

Early Development and Learning

When children come into this world, there are very few things that they can do independently. Compared to most animal offspring, human babies need more time and more support from others before mastering the set of skills that will allow them to navigate their environment without relying on others' assistance. However, from birth, they are equipped with a powerful tool to support their development—learning.

During early development, children learn through their discoveries and experiences in the physical and social environment, acquiring new skills and broadening their knowledge of the world in the framework of playful social interactions with others and everyday routines, long before they have fully developed cognitive and linguistic capacities. While other species, such as birds, dogs, and apes, can also learn novel behaviors through exploration of the environment and interaction with others, human learning is unique in many aspects.

First, children, from infancy onward, are rapid learners—they learn novel behaviors, novel words, and novel concepts at an extraordinarily fast pace. The speed of their acquisition of new information relies partially on their preference for everything that is novel—a new action, a new word, a new object, and a new sound; all of these will tend to capture the child's attention. Novelty, however, is not enough to ensure rapid learning.

A second influence on the speed of human learning concerns the motivation for social interaction. Infant learning is driven by a special kind of curiosity, a natural fascination for people—their faces, their actions, and their emotions. Children are more inclined to do things with others than doing things by themselves, and normally, they experience participation in social exchanges as more rewarding and motivating than solitary activities. Children's preference and motivation to be with others (and being *like* others) also affect the nature of their partners' interactions with them, fostering attention and engagement from others. As a consequence, early social motivation provides young children with a wealth of opportunities to learn new skills that they might not learn through chance experiences.

A third influence involves children's propensity to learn selectively from others. Young children, just like adults, can be very particular in terms of what they learn, whom to learn from, and when to learn. Rather than indiscriminately incorporating everything that they are exposed to in their own behavioral repertoire, they tend to learn new actions and words when (a) they experience emotional connectedness with the person they are learning from and (b) when they see positive effects of new behaviors on goals that are important to them. Recent research shows that children are more likely to imitate a person who is looking at them, rather than someone who is ignoring them, because the establishment of eye contact creates social connectedness and affective engagement between the adult and the child (Vivanti & Dissanayake, 2014; Over & Carpenter, 2012). Imagine, for example, a child who sits next to his mother while she writes a shopping list. If the mother looks at the child and smiles while she is writing her list, the child might start scribbling on the piece of paper himself—however, this imitative response is less likely to occur if the mother is writing her shopping list while talking on the phone or looking at her recipe book and ignores the child.

Similarly, children are more likely to learn a new language if they play with someone who speaks that language, than if they are merely being exposed to the language through the TV and have no opportunity to interact with the speaker (Kuhl, 2007). Finally, children are more likely to learn a skill that solves a problem and achieves a goal than one that does not (Williamson, Meltzoff, & Markman, 2008). Therefore, the framework of social curiosity, playfulness, affective engagement, and interest in the goals that new actions can achieve in which early development takes place is not just something happening around and outside the act of learning—rather, these are active ingredients in the process of cognitive development. Regular child-caregiver interactions during household routines and play activities are the contexts in which the combination of these factors gives rise to daily learning experiences in early childhood.