# The Ziggurat Model

A Framework for Designing Comprehensive Strategies and Supports for Autistic Individuals

Updated and expanded with the Underlying Characteristics Checklist for Early Intervention (UCC-EI) – backed by a comprehensive case study. The Ziggurat Model, for individuals across the spectrum and across the lifespan, is now even more fine-tuned for early intervention.

Release 2.1

Ruth Aspy, Ph.D., and Barry G. Grossman, Ph.D.

Foreword by Gary B. Mesibov, Ph.D.





## Acknowledgments

hen the Ziggurat Model was created, Ruth was the first to say, "Do you know what we have here? We've got a book." We could never have anticipated what those few words would set in motion, however this book could not have come about without the support of our family, friends, and colleagues.

Beginning to put our ideas on paper was a daunting task. We greatly appreciate the assistance of Lissa Cone, Michael Goldman, and Charlie Ornstein, who served as our early editors and helped to clarify our thoughts and develop our voice. As our book proposal was nearing completion, we had the good fortune of meeting Brenda Smith Myles. Brenda was enthusiastic from the moment she learned about the project. She encouraged us to stop obsessing and submit the proposal. We have been members of Brenda's fan club for some time. Through this process, we have become even more impressed by her brilliance, kindness, and energy. We are honored to have Brenda as a mentor and a friend.

Moving from the book proposal to completed manuscript has been a long endeavor. We appreciate the patience and guidance of our skilled editor and advisor, Kirsten McBride. Vivian Strand has taken our sketches and crude illustrations and turned them into art.

As we developed the Ziggurat Model, we found Eric Schopler's iceberg analogy to be an eloquent way of illustrating the importance of the autism that underlies behavioral concerns. We built on this analogy to develop the ABC-I. We had the good fortune to briefly correspond with Dr. Schopler. He was encouraging and kind. Eric Schopler was a pioneer in the field, and his passing in 2006 was a great loss. Gary Mesibov, who has provided leadership alongside of Dr. Schopler, graciously agreed to write the foreword to the book.

Writing this book coincided with a rare opportunity to experience a bond of trust and support with coworkers who shared our passion for helping those with special needs and who in the process became like extended family. Joanie Cassity, Karen Fischer, Susan Jamieson, and Ann McKeever provided leadership and set the tone of kindness. Ann also generously shared the sanctuary of her home and friendly, wagging tails to provide comic relief. It seemed that each time we met a milestone in this process, we were in Ann's home. Through sharing knowledge in their specialty areas, Nicole Brin, Kim Davis, Angela Medrano, Sherri Millington, Sarah Welbourne, and Penny Woods helped to refine the Underlying Characteristics Checklist.

We are fortunate to have friends who also happen to be experts in the field of autism spectrum disorders. Each has contributed at unique points along the way. Debra Gomez helped to make the explanation of the levels of the Ziggurat more consistent and understandable. Amy Bixler Coffin was the first to read the manuscript in its entirety and the first professional to apply the model based on the written text. Her feedback was both encouraging and enlightening. Throughout, Ashley De Ville's expertise in interventions for children with autism enhanced our ideas. She showed endless patience to two crazed writers. Ashley is a treasured friend. Kristi Sakai offered us a new perspective on our lives. She saw an importance to this work and encouraged us to persevere. She is an inspiration to us.

The Ziggurat illustrates the importance of a solid foundation. Family is our foundation, without which this work could never have been possible. We greatly appreciate their patience and love. Angie, Kevin, William, Beth, Sarah, and Bekah provided musical interludes that gave us something special to look forward to. They, along with Lissa, Daniel, and Lauren, supported us by keeping us in their hearts and thoughts. Virgie has been a touchstone – providing us with perspective, comic relief, and moral support. She is wise in areas in which we are clueless and patiently coached us. Jan and Fred (aka Mom and Dad), Shari, Charlie, Miles, David, Kimberly, Rosie, Ashley, and Joshua helped to re-center us. They nurtured, cheered, advised, asked for constant updates, and pushed us towards the finish line – yes, we are finally done!

As we now transition into version 2.1, it amazing how much can change. We would like to thank some additional special people in our lives including Stephanie, Bobby, and Benji for their patience and kindness along with Kevin Miller who helped to make this possible.

Our thanks to those who have made this project a reality.

## Notes on Release 2.1

Some amazing outcomes. Parents and professionals have written to tell us how the Ziggurat has made a difference in the lives of autistic individuals. Moreover, we are seeing systems change through the use of the model. The Ziggurat Model has been adopted district-wide, agency-wide, and across states and provinces. Universities are using the Ziggurat Model to prepare future educators, speech-language pathologists, and other professionals. Professionals currently in practice have been equipped to use the model through professional development programs. The Ziggurat Model has been helpful in our own work. We are pleased that others are now "Zigging" and learning of its many benefits. While a seemingly simple concept, the framework of the Ziggurat Model helps to ensure comprehensive program design and to move away from an ineffective piecemeal approach.

We have learned much about the Ziggurat Model through our own work and through teaching others to use the model. The field has also evolved since the first edition of this book with an increased awareness of the power of early intervention as well as increased understanding of the impact of autism spectrum disorder (ASD) on individuals who are higher functioning.

Release 2.1 reflects these changes. One of the newest features is the addition of the Underlying Characteristics Checklist – Early Intervention. While the Ziggurat Model has always been appropriate for use with individuals across the lifespan, we saw a growing need to develop a tool that reflects the unique needs of the 3-month to 72-month age group. The UCC-EI offers a necessary alternative to the traditional approach of identifying very young children who are in need of services based on the use of developmental checklists alone – too many children have been missed; furthermore, use of this tool will assist in identifying targets for intervention beyond the strictly developmental. Release 2.1 includes an early childhood case study in Chapter 3. The field is always changing. A few short years ago, we saw the merging of diagnostic subtypes into a single autism spectrum. Females with autism, a group near and dear to our hearts, are under-identified and misunderstood. At last, there is a growing understanding of their unique needs but much work remains. We have worked to include autistic people across gender and across the spectrum. Additionally, the increased awareness of the overlap between autism and catatonia is reflected herein. Last, terminology has changed as the important voices of people on the spectrum are being heard. We have done our best to respect these voices.

We hope that the group of people who are "Zigging" will continue to grow for the benefit of individuals across the spectrum.

Kindly,

Ruth Aspy and Barry G. Grossman

### Foreword

t is a pleasure for me to introduce this impressive work by Ruth Aspy and Barry Grossman. The authors present their Ziggurat Model as unique, a claim made by many authors about their work, but not usually fully realized. In this case, however, I think the authors do not overstate their case, having created something original, thoughtful, practical, and, indeed, unique.

I don't think I have ever written a foreword for a book before without personally knowing the authors, but I was drawn to this work for several reasons. First, when you read this book, you are quickly convinced that the authors really know children and how they think and learn, especially children with disabilities. Second, the authors have clearly broadened their clinical knowledge by reading a lot of relevant literature and assimilating it impressively. Third, the authors have a creative way of integrating what they know, what they have read, and what others have done in presenting a genuinely creative and unique synthesis. Finally, the authors have the practitioner in mind and offer ideas that will be readily applicable and very helpful.

In addition to these many assets, I like the way the authors understand that the ultimate skill in working with children with disabilities is in the process of developing the interventions. They neither oversimplify by suggesting that cookbook strategies or simple techniques will work, nor do they make the process of teaching students with autism spectrum disorder so complicated that few readers will be able to trudge through their book and find anything that they can understand well enough to apply. Instead, they have dealt with ASD in all of its complexity but have generated a process that is neither too simple-minded to work nor too complex to apply. Their excellent balance is a great asset, along with their thorough understanding of their subject matter and their creativity in assimilating a variety of approaches.

Although I have not personally met Ruth Aspy or Barry Grossman, I have developed great respect for their knowledge and clinical instincts for educating students with ASD. Reading their book makes me really want to meet them because they obviously understand this field and have some unique and creative ideas for developing successful intervention programs. I think that a wide range of parents and professionals will also want to meet these talented authors after reading this book to share more of their knowledge and to express their appreciation for this excellent contribution to the field.

Gary B. Mesibov, Ph.D.Professor and Director of Division TEACCH

## Introduction

he Ziggurat Model is unique. While it is easy to find volumes of information describing specific interventions, it is difficult to find information on how to develop an intervention plan. This book presents a process and framework for designing comprehensive intervention plans for autistic individuals of all ages.

As psychologists, we are often asked questions such as, "How can I get my child to stop interrupting conversations?" or "How do I know which intervention to use?" These questions imply that there is a single response that could resolve a specific concern and that a given strategy is appropriate for all autistic people. It is no surprise that parents and professionals feel confused when tried-and-true behavior techniques do not work. Further, they become frustrated because well-established interventions do not result in long-term gains.

We believe that it is shortsighted to assume that a pervasive disorder can be effectively treated with any single approach. We have discovered that even evidence-based interventions may fail if the stage is not properly set through the use of multiple interventions targeted specifically at an individual. Thus, a "piecemeal" approach will, at best, provide temporary or partial improvement. Furthermore, interventions must *address characteristics that underlie autism itself*.

The Ziggurat Model is unique. It is designed to address true needs or underlying deficits that result in social, emotional, and behavioral concerns. As such, the model is designed to help parents, teachers, speech pathologists, psychologists, occupational therapists, counselors, school administrators, autism consultants, and others to design in-depth, in-dividualized interventions that work with this population.

This book is intended for readers of all skill levels. Novices to the field will learn the characteristics of autism and be introduced to a variety of research-based approaches to addressing the needs of this population. More advanced readers will gain a deeper understanding of the complex behavioral manifestations of this condition and expand their knowledge of intervention tools.

#### **COMPONENTS OF THE ZIGGURAT MODEL**

The Intervention Ziggurat is the centerpiece of the Ziggurat Model. It contains five levels in a hierarchical structure. Each level represents an area that must be addressed in order for an intervention plan to be comprehensive. Further, each level contributes to the effectiveness of the other levels. Building from the foundation of the Ziggurat, these levels are:

- Sensory and Biological
- Reinforcement
- Structure and Visual/Tactile Supports
- Task Demands and Positive Environment
- Skills to Teach

If needs on each level of the Ziggurat are not addressed, the intervention will not be as effective, and skills will not develop. As skills increase, less intensive interventions will be required on the lower levels of the Ziggurat because the teaching of new skills allows for growth and makes a permanent difference for the person on the spectrum.

The underlying needs and characteristics related to autism must be addressed – this is a key premise of the Ziggurat Model. The Ziggurat Model includes three assessment tools – the Underlying Characteristics Checklist (UCC), the Individual Strengths and Skills Inventory (ISSI), and the ABC-Iceberg (ABC-I) – designed to identify these underlying factors. The UCC is a descriptive instrument that can be completed by multiple respondents and that provides a "snapshot" of how autism is expressed for an individual in the following areas: Social; Restricted Patterns of Behavior, Interests and Activities; Communication; Sensory Differences; Cognitive Differences; Motor Differences; Emotional Vulnerability; and Medical or Biological Factors. The ISSI builds from the UCC to identify an individual's strengths in each UCC area. The ABC-I incorporates a traditional functional behavior assessment and helps to illustrate patterns of behavior.

The Ziggurat Worksheet, a guide for the intervention planning process, is also detailed throughout the book. Use of the Ziggurat Worksheet ensures that an intervention is comprehensive. In brief, a complete intervention plan addresses all five levels of the Ziggurat, the underlying needs identified through the use of the UCC, and provides for intervention at three points – antecedent, behavior, and consequence.

#### **STRENGTHS OF THE ZIGGURAT MODEL**

The Ziggurat Model was designed to simplify a complex process. Parents and professionals will find the framework of the Ziggurat Model to be a guide in developing more thorough and effective interventions.

The Ziggurat Model is a valuable resource for public school professionals who must remain in compliance with federal and state guidelines. Specifically, recent trends in special education law emphasize the use of scientifically based research approaches along with a focus on response to intervention (RTI). Additionally, there is a strong push for incorporating positive behavioral interventions and supports (PBIS) based on a functional behavioral assessment. The Ziggurat Model is consistent with these practices.

The Ziggurat Model may be used alone or in combination with another model – the Comprehensive Autism Planning System (CAPS; Henry & Myles, 2007). Each of these models is strong, but together they are even stronger.

CAPS is a unique method of developing and implementing a meaningful program for an autistic individual. Its structure fosters consistent use of supports to ensure success as well as data collection to measure that success. Compatible with current trends in education, including NCLB, RTI, and SWPBS (school-wide positive behavioral support), CAPS is simple and easy to use (Henry & Myles, 2007).

First, this book outlines evidence-based interventions on each of the five levels of the Ziggurat. Additionally, the ABC-I tool incorporates a functional behavioral assessment that facilitates development of an individually designed intervention. The Ziggurat Model also emphasizes a proactive, positive approach by requiring reinforcement and antecedentbased interventions. Ongoing assessment allows for changes to the intervention plan at each level gauged on progress. Finally, the Ziggurat Model promotes collaboration and communication among parents and professionals. The assessment tools are designed to incorporate the perspectives of multiple team members while ensuring that they work from the same reference point – the individual's underlying characteristics of autism. The Ziggurat Worksheet promotes collaboration by helping parents and professionals to understand their part in the larger intervention picture. Thus, through the use of the Ziggurat Model, the whole truly is greater than the sum of its parts.

This capacity to facilitate collaboration lends the Ziggurat Model to be an effective consultation tool. The model may be used throughout the consultation process (e.g., identification of concerns, assessment, development of intervention, monitoring and assessing progress) and can also be used to help evaluate an existing evaluation plan.

While the Ziggurat Model is designed to address the needs of all all autistic individuals, this book emphasizes the higher functioning population.

#### **CHAPTER HIGHLIGHTS**

- The Ziggurat Model provides a process and framework for designing individualized, comprehensive intervention plans for individuals on the spectrum of all ages.
- The Intervention Ziggurat is the centerpiece of the Ziggurat Model and contains five levels in a hierarchical structure: (a) Sensory and Biological, (b) Reinforcement, (c) Structure and Visual/ Tactile Supports, (d) Task Demands and Positive Environment, and (e) Skills to Teach.
- Each level of the Intervention Ziggurat impacts the others, and all levels must be addressed in order for an intervention plan to be comprehensive.
- A key premise of the Ziggurat Model is that the underlying needs and characteristics related to autism must be addressed.
- The Ziggurat Model includes three assessment tools to aid in identifying the underlying needs and characteristics related to autism: (a) the Underlying Characteristics Checklist (UCC), (b) the Individual Strengths and Skills Inventory (ISSI), and (c) the ABC-Iceberg (ABC-I).
- The Ziggurat Worksheet may be used to help ensure that an intervention plan is comprehensive.
- The Ziggurat Model helps to meet federal and state guidelines that focus on use of evidence-based practices, response to intervention, and positive behavioral interventions and supports based on functional behavior assessments.
- The Ziggurat Model promotes collaboration and communication among team members throughout all stages of the intervention process. The companion system, CAPS, facilitates implementation of intervention plans developed using the Ziggurat Model.

<sup>&</sup>lt;sup>1</sup> The numerous case scenarios were created for the purpose of illustration and education. All individuals described in the scenarios are fictitious and based on our experience and imagination. Any similarity to real individuals is coincidental.

#### **Online Training is now available!**

#### Learn more about the award winning Ziggurat Model and other topics at:

#### www.autismzig.com

#### Underlying Characteristics Checklists Available at www.texasautism.com

- UCC-Early Intervention (3 months through 72 months)
- UCC-Classic (Ages 6 years through adulthood with below average cognitive skills)
- UCC-High-Functioning (Ages 6 years through adulthood with average or above average cognitive skills)
- UCC-Self-Report Adolescent (Ages 12 through 18 with average or above average cognitive skills)
- UCC-Self-Report Adult (Ages 18 and older with average or above average cognitive skills)

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"A practical and helpful book that provides a comprehensive approach to intervention for more able individuals with autism. The book is enhanced by the use of cases and diagrams and has a practical orientation. It will be of great benefit to professionals and parents alike."

 Fred R. Volkmar, M.D., Director, Child Study Center, Irving B. Harris Professor of Child Psychiatry, Pediatrics and Psychology, Yale University School of Medicine; Chief, Child Psychiatry, Children's Hospital at Yale New Haven

"In the past ten years, I have seen three materials that I believe have the potential to advance the progress of children and youth with ASD. One is the Ziggurat Model. Aspy and Grossman understand autism in a way that most people do not. They have a created a simple-to-use, yet comprehensive model to ensure that children's needs are met throughout the school day. The Ziggurat program is innovative, based on best practices and focused on the child's needs. I wish that I would have created this model. It is simply brilliant."

- Brenda Smith Myles, Ph.D., Consultant and internationally known presenter and writer on issues related to autism

"With the Ziggurat Model of Intervention, Drs. Aspy and Grossman have synthesized the research on program planning and functional behavior assessment into a useful and user-friendly decision model leading to the development of truly comprehensive, functionally determined educational and behavior support plans. Highly recommended."

- Peter F. Gerhardt, Ed.D., President, Organization for Autism Research

"Comprehensive and well-researched, but also understandable and accessible, the ZM addresses the multifaceted needs of children with ASD in the school setting. Its very premise is that while there are commonalities, the characteristics of autism impact every student *differently*. This program is ingenious in that it creates an individualized plan and a framework in which to implement it. It is a well-oiled mechanism that smooths the wrinkles out of the school day for every child. In addition, as a parent it's exciting for me to think of the multitude of ways we can further use the information we gain about our kids through, for example, using the UCC (Underlying Characteristics Checklist). The ZM is not merely a support system, but a celebration of what is unique about our kids on the spectrum and a springboard for their future."

- Kristi Sakai, Mother of three children with autism and author of *Finding Our Way: Practical* Solutions for Creating a Supportive Home and Community for the Asperger Syndrome Family

**RUTH ASPY, Ph.D.,** is a licensed psychologist and author. She specializes in autism assessment and support and speaks internationally. She has experience in both clinic and school settings. She believes that kindness is at the heart of all good strategies. Dr. Aspy has an emphasis on working with females on the spectrum and those individuals who have symptoms of catatonia.

**BARRY G. GROSSMAN, Ph.D.,** is a licensed psychologist and author in private practice. He specializes in counseling and assessment for individuals on the spectrum and their families. Dr. Grossman has an emphasis on working with females on the spectrum. He has experience in the school setting and has codeveloped statewide trainings for educators on evaluation and designing comprehensive supports.



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