Introduction

Practical Ideas That Really Work for Students with Autism Spectrum Disorders was written to assist educators and parents in providing intervention strategies to promote these students' ability to learn and to function in social situations. The book builds on the feedback that we have collectively received about our prior books in this series. We have learned that teachers find it very useful to have a repertoire of appropriate intervention strategies to use.

Background

Leo Kanner (1943) first introduced the term *early infantile autism.* Kanner used behavioral observation as the basis for describing a group of 11 children who had similar characteristics but who did not fit into diagnostic categories that were typically used at the time. Kanner initially considered both biological and environmental variables and their interaction as possible causes of autism. He felt that children seemed to have been born without the typical capacity for social and emotional development, perhaps due to some organic or neurological problem. It is now accepted that autism is caused by some form of neurological brain abnormality (Rapin, 2001; Schopler & Mesibov, 1995). Regardless of the causes of autism, the increase in prevalence rates will result in increased referrals for special education services and an increased need for educational accommodations.

The prevalence rate for autism was first reported as five cases in 10,000 children by Wing, Yeates, Brierley, and Gould (1976). In recent years, the reported prevalence rate for autism has increased. Fombonne (2003) summarized the results of 32 epidemiological surveys conducted worldwide. He found that between 1966 and 2001 the prevalence rate increased to 12.7 cases in 10,000 children. When he included studies that combined all Pervasive Developmental Disorders, he reported an estimated prevalence rate of 27.5 cases in 10,000 children. Fombonne and others project that the prevalence rate will reach 40 cases in 10,000 children by the year 2050.

This increase in prevalence rates has major implications for educational interventions and accommodations for students with autism spectrum disorders. We have designed these materials to meet these students' needs by using research-based strategies.

Components

Practical Ideas That Really Work for Students with Autism Spectrum Disorders is intended for use with students with autism spectrum disorders in preschool through Grade 12 It includes the following two primary components.

- **Evaluation Form with a Rating Scale and Ideas Matrix.** The Rating Scale portion of the evaluation form is a criterion-referenced measure for evaluating behaviors that impact student learning and social interactions. The items on the scale are specific descriptors that correlate to the *Diagnostic and Statistical Manual of Mental Disorders–Fourth Edition–Text Revision* (DSM–IV–TR; American Psychiatric Association, 2000) indicators for Autistic Disorder. All DSM–IV–TR criteria for Autistic Disorder are included on the scale. Additionally, many of the items apply to other PDDs. On the third page of the Evaluation Form we have included a table that indicates which items relate to each of the other PDDs. The Ideas Matrix on the last page of the Evaluation Form provides a systematic way of linking the results of the Rating Scale to interventions. We hope that educators use the Ideas Matrix as a tool for selecting effective interventions to meet each student's specific needs.

- **Practical Ideas Manual.** The manual was developed to meet the needs of students with a range of pervasive developmental disorders. The ideas in the manual were written to assist teachers and other professionals in improving students' social interactions and communication skills and in decreasing their repetitive and stereotypical patterns of behaviors. The name of the book reflects our understanding that students with these disorders can exhibit a wide spectrum of skills and behaviors related to social interactions, communication, and repetitive/stereotypical behaviors. The book contains an explanation of each idea, along with reproducible worksheets, examples, illustrations, and tips designed for easy implementation. There are also many references to other materials that teachers may find useful.

The Rating Scale

The Rating Scale included within the Evaluation Form is a criterion-referenced instrument. It was designed to be used by teachers or other professionals to rate children and adolescents according to the DSM–IV–TR criteria for autism and other PDDs. The measure was designed to assist teachers in conducting a careful and thorough assessment of the specific problems to guide the selection of intervention strategies. This scale is not intended to be used to diagnose these disorders, rather it is intended as a tool for determining intervention strategies and writing Individualized Education Program (IEP) goals and objectives.

Item Development

The Rating Scale is divided into the three areas of Autistic Disorder defined by the DSM–IV–TR: Social Interactions, Communication, and Repetitive/Stereotyped Patterns. The measure consists of 39 items; three items for each of the 12 DSM–IV–TR criteria and three for receptive language, for a total of 13 criteria. Professionals are to answer the following question when rating a student: To what degree do the behaviors listed interfere with the student's ability to function in the learning or social environments? The items on the scale are to be rated by educators using the 4-point Likert system with 0 = *Never or rarely exhibits the behavior,* 1 = *Sometimes exhibits the behavior,* 2 = *Frequently exhibits the behavior,* and 3 = *Consistently exhibits the behavior.* For each criterion, the range of possible scores is 0 to 9; the higher the score, the more the behavior interferes with the student's ability to function in the learning and social environments.

Field-Testing the Rating Scale

The criterion-referenced measure was field-tested in four school districts in Texas with 50 students identified as having autism. The students ranged in age from 3 to 18 years; 12 were females and 38 were males. An item analysis was conducted using this sample, and the resulting reliability coefficients were .91 for social interactions, .90 for communication, and .92 for repetitive/stereotyped behaviors. The magnitude of these coefficients strongly suggests that the rating scale possesses little test error and that users can have confidence in its results.

The Manual

Teachers and other educators are busy people who have many responsibilities. In our discussions with teachers, supervisors, and counselors about the development of this product, they consistently emphasized the need for materials that are practical, easy to implement in the classroom, and not overly time-consuming. We appreciated their input and worked hard to meet their criteria as we developed the ideas in this book. In addition, we conducted an extensive review of the literature, so that we stayed focused on ideas supported by data documenting their effectiveness. The result is a book with 40 ideas, many with reproducible masters, and all grounded in research and the collective experience of the many educators who advised us and shared information with us.

Assessment provides useful information to educators about the strengths and deficits of students. However, unless the information gathered during the assessment process impacts instruction, its usefulness for campus-based educators is limited. We designed the Ideas Matrix so that educators can make the direct link between the information provided by the Rating Scale and instruction in the classroom. We think that this format stays true to our purpose of presenting information that is practical and useful.

Directions for Using the Materials

Step 1: Collect Student Information

The professional (a special education teacher, general education teacher, counselor, or other educator with knowledge of the student) should begin by completing the Evaluation Form for the child who has been identified as having autism or another pervasive developmental disorder. In addition, the professional can use this product with children who exhibit problems functioning in the learning or social environment because of poor social interactions or communication skills, or who exhibit repetitive or stereotypical patterns of behaviors.

As an example, Torrance's completed Evaluation Form is provided in Figure 1. Space is provided on the front of the form for pertinent information about the student being rated, including name, birth date, age, school, grade, rater, and educational setting. In addition, the dates the student is observed and the amount of time the rater spends with the student can be recorded. Also included on the front of the form are the DSM–IV–TR criteria for Autistic Disorder.

Step 2: Rate the Behaviors of the Student

Pages 2 and 3 of the Evaluation Form contain the Rating Scale. The items are divided into the three sections defined by the DSM–IV–TR criteria for autistic disorder: social interactions, communication, and repetitive/stereotypical patterns. This section provides the instructions for administering and scoring the items. Space is also provided to total the items for each DSM–IV–TR criterion, to check the three problems to target for immediate intervention and to record the intervention idea and its starting date. At the bottom of the rating scale is a table that depicts which items of the rating scale are aligned to the DSM–IV–TR criteria for four disorders: Autistic Disorder, Asperger's Disorder, Childhood Disintegrative Disorder, and Rett's Disorder.

Step 3: Choose the Ideas To Implement

The last page of the Evaluation Form contains the Ideas Matrix. After choosing the three priority problems to target for immediate intervention, the professional should turn to the Ideas Matrix and select an intervention that corresponds to that problem. The professional should write the idea number and the starting date on the space provided on the rating scale.

For example, Torrance received the highest ratings in one area of Reptetive/Stereotyped Patterns (restricted patterns of interest [9]) and one area of Communication (conversation [7]) and one area of Social Interactions (sharing enjoyment and interests [6]). His teacher has targeted these three areas and has chosen Ideas 3, 16, 27, and 29 from the Ideas Matrix. Because the area of major concern is restricted patterns of interest, the teacher will begin with Ideas 27 and 29 on September 10.

Step 4: Read and Review the Practical Ideas That Have Been Selected

Within the manual, the ideas are discussed at some length in terms of their intent and implementation. After selecting the idea that is matched to the needs of students, the idea can then be planned for implementation. These individual ideas should be integrated into an overall instructional design and be reflected in one or several classroom lessons focused on the particular learning objective.

In our example with Torrance, this could be accomplished by recording the number of times he completes or demonstrates the targeted action or behavior independently during a 6- to 8-week period. The teacher can either move on to the second problem at this point or work on more than one problem simultaneously. In the case of Torrance, the teacher plans to use Idea 3, Show Me, to improve his ability to share his enjoyment and Idea 16, Cueing Pronouns, to improve his ability to use the appropriate pronoun when engaged in conversation.

Step 5: Evaluation

After implementation, teachers should complete the assessment cycle by evaluating the results of the intervention strategy. By following a model that begins with the assessment of need, leads to the development of an instructional plan, follows with the implementation plan, and concludes with the evaluation of its effectiveness, teachers can ensure a responsive educational program that enables students to enhance their achievement in the area of concern. In so doing, the information within this manual can be correlated with the annual goal-setting of students with autism spectrum disorders.

References

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders–Fourth edition–Text revision*. Washington, DC: Author.

Fombonne, E. (2003). Epidemiological surveys of autism and other pervasive developmental disorders: An update. *Journal of Autism and Developmental Disorders, 33,* 365–382.

Kanner, L. (1943). Autistic disturbances of affective content. *The Nervous Child, 2,* 217–250.

Rapin, I. (2001). *Autistic children: Diagnosis and clinical features*. Elk Grove, IL: American Academy of Pediatrics.

Schopler, E., & Mesibov, G. B. (1995). Introduction to learning and cognition in autism. In E. Schopler & G. B. Mesibov (Eds.), *Learning and cognition in autism* (pp. 3–11). New York: Plenum Press.

Wing, L., Yeates, S., Brierley, L. M., & Gould, J. (1976). The prevalence of early childhood autism: A comparison of administrative and epidemiological studies. *Psychological Medicine, 6,* 89–100.

References Supporting Ideas

1. Adams, C., Lloyd, J., Aldred, C., & Baxendale, J. (2006). Exploring effects of communication intervention for developmental pragmatic language impairments: A signal-generation study. *International Journal of Language and Communication Disorders, 41*(1), 41–65.
   Ideas 6, 11, 14, 18, 19, 20, 21

2. Adams, L., Gouvousis, A., VanLue, M., & Waldron, C. (2004). Social story intervention: Improving communication skills in a child with autism spectrum disorder. *Focus on Autism and Other Developmental Disabilities, 19*(2), 87–94.
   Idea 34

3. Apple, A. L., Billingsley, F., & Schwartz, I. S. (2005). Effects of video modeling alone and with self-management on compliment-giving behaviors of children with high-functioning ASD. *Journal of Positive Behavior Interventions, 7*(1), 33–46.
Ideas 9, 35

4. Baker, M. J. (2000). Incorporating the thematic ritualistic behaviors of children with autism into games: Increasing social play interactions with siblings. *Journal of Positive Behavior Interventions, 2*(2), 66–84.
Ideas 8, 13

5. Barrows, P. (2004). "Playful" therapy: Working with autism and trauma. *International Forum Psychoanalysis, 13,* 175–186
Idea 13

6. Barry, L. M., & Burlew, S. B. (2004). Using social stories to teach choice and play skills to children with autism. *Focus on Autism and Other Developmental Disabilities, 19*(1), 45–51.
Idea 34

7. Bauminger, N. (2002). The facilitation of social-emotional understanding and social interaction in high-functioning children with autism: Intervention outcomes. *Journal of Autism and Developmental Disorders, 32*(4), 283–298.
Ideas 3, 39

8. Bryan, L. C., & Gast, D. L. (2000). Teaching on-task and on-schedule behaviors to high-functioning children with autism via picture activity schedules. *Journal of Autism and Developmental Disorders, 30*(6), 553–567.
Ideas 12, 24, 25, 28

9. Carothers, D. E., & Taylor, R. L. (2004). How teachers and parents can work together to teach daily living skills to children with autism. *Focus on Autism & Other Developmental Disabilities, 19*(2), 102–104.
Idea 22

10. Christodulu, K. V., & Durand, V. M. (2004). Reducing bedtime disturbance and night waking using positive bedtime routines and sleep restriction. *Focus on Autism and Other Developmental Disabilities, 19*(3), 130–139.
Idea 27

11. Conroy, M. A., Asmus, J. M., Sellers, J. A., & Ladwig, C. N. (2005). The use of an antecedent-based intervention to decrease stereotypic behavior in a general education classroom: A case study. *Focus on Autism and Other Developmental Disabilities, 20*(4), 223–230.
Ideas 2, 28, 29, 32

12. Dauphin, M., Kinney, E. M., & Stromer, R. (2004). Using video-enhanced activity schedules and matrix training to teach sociodramatic play to a child with autism. *Journal of Positive Behavior Interventions, 6*(4), 238–250.
Ideas 9, 25, 35

13. Dettmer, S., Simpson, R. L., Myles, B. S., & Ganz, J. B. (2000). The use of visual supports to facilitate transitions of students with autism. *Focus on Autism and Other Developmental Disabilities, 15*(3), 163–169.
Ideas 24, 25, 26, 28, 29, 30, 32, 33

14. Diehl, S. F., Ford, C. S., & Federico, J. (2005). The communication journey of a fully included child with an autism spectrum disorder. *Topics in Language Disorders, 25*(4), 375–387.
Ideas 12, 18, 22, 23, 27, 34

15. Dyer, K., Dunlap, G., & Winterling, V. (1990). Effects of choice making on the serious problem behaviors of students with severe handicaps. *Journal of Applied Behavior Analysis, 23,* 515–524.
Ideas 23, 24

16. Earles, T. L., Carlson, J. K., & Bock, S. J. (1998). Instructional strategies to facilitate successful learning outcomes for students with autism. In R. L. Simpson & B. S. Myles (Eds.), *Educating children and youth with autism: Strategies for effective practice* (pp. 55–111). Austin, TX: PRO-ED.
Ideas 12, 24, 25

17. Escalona, A., Field, T., Nadel, J., & Lundy, B. (2002). Brief report: Imitation effects on children with autism. *Journal of Autism & Developmental Disorders, 32*(2), 141–144.
Ideas 4, 5

18. Field, T., Field, T., Sanders, C., & Nadel, J. (2001). Children with autism display more social behaviors after repeated imitation sessions. *Autism: The International Journal of Research & Practice, 5*(3), 317–323.
Ideas 5, 11

19. Fisher, W., Adelinis, J. D., Volkert, V. M., Keeney, K. M., Neidart, P. L., & Hovanetz, A. (2005). Assessing preferences for positive and negative reinforcement during treatment of destructive behavior with functional communication training. *Research in Developmental Disabilties, 26*(2), 153–168.
Ideas 36, 37

20. Heflin, L. J., & Alberto, P. (2001). Establishing a behavioral context for learning for students with autism. *Focus on Autism and Other Developmental Disabilities, 69*(2), 93–101.
Ideas 17, 30, 38, 39, 40

21. Hess, L. (2006). I would like to play but I don't know how: A case study of pretend play in autism. *Child Language Teaching and Therapy, 22*(1), 97–116.
Idea 39

22. 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*(4), 231–222.
Ideas 5, 11, 14, 17, 18, 19, 20

23. Ingersoll, B., Schreibman, L., & Tran, Q. H. (2003). Effect of sensory feedback on immediate object imitation in children with autism. *Journal of Autism & Developmental Disorders, 33*(6), 673–683.
Idea 4, 5, 10

24. Ivey, M. L., Heflin, L. J., & Alberto, P. (2004). The use of social stories to promote independent behaviors in novel events for children with PDD–NOS. *Focus on Autism and Other Developmental Disabilities, 19*(3), 164–176.
Idea 34

25. Kay, S., Harchik, A. E., & Luiselli, J. K. (2006). Elimination of drooling by an adolescent student with autism attending public high school. *Journal of Positive Behavior Interventions, 8*(1), 24–28.
Ideas 36, 37

26. Keen, D., Sigafoos, J., & Woodyatt, G. (2001). Replacing prelinguistic behaviors with functional communication. *Journal of Autism and Developmental Disorders, 31*(4), 385–398.
Ideas 6, 17, 23

27. Kerr, S., & Durkin, K. (2004). Understanding of thought bubbles as mental representations in children with autism: Implications for theory of mind. *Journal of Autism and Developmental Disorders, 34*(6), 637–648.
Idea 21

28. Koegel, L. K., Camarata, S. M., & Valdez-Menchaca, M. C. (1998). Setting generalization of question-asking by children with autism. *American Journal on Mental Retardation, 102,* 346–357.
Idea 17

29. Kok, A. J., Kong, T. Y., & Bernard-Opitz, V. (2002). A comparison of the effects of structured play and facilitated play approaches on preschoolers with autism. *Autism: The International Journal of Research & Practice, 6*(2), 181–196.
Ideas 6, 7, 8, 13

30. LeBlanc, L. A., Coates, A. M., Daneshvar, S., Charlop-Christy, M. H., Morris, C., & Lancaster, B. M. (2003). Using video modeling and reinforcement to teach perspective-taking skills to children with autism. *Journal of Applied Behavior Analysis, 36*(2), 253–257.
Ideas 9, 35

31. McDuff, G. S., Krantz, P. J., & McClannahan, L. E. (1993). Teaching children with autism to use photographic activity schedules: Maintenance and generalization of complex response chains. *Journal of Applied Behavior Analysis, 26,* 89–97.
Ideas 12, 25, 26

32. McDuffie, A., Yoder, P., & Stone, W. (2005). Prelinguistic predictors of vocabulary in young children with autism spectrum disorders. *Journal of Speech, Language, & Hearing Research, 48*(5), 1080–1097.
Idea 4

33. McGee, G. G., Daly, T., Izeman, S. G., Man, L., & Risley, T. R. (1991). Use of classroom materials to promote preschool engagement. *Teaching Exceptional Children, 23,* 44–47.
Idea 30

34. Olley, J. G. (1999). Curriculum for students with autism. *School Psychology Review, 28*(4), 595–607.
Ideas 17, 38, 39, 40

35. Quill, K. (1997). Instructional considerations for young children with autism: The rationale for visually cued instruction. *Journal of Autism and Developmental Disorders, 27*(6), 697–714.
Ideas 1, 2, 12, 15, 16, 32, 33

36. Ruff, H. A., & Saltarelli, L. M. (1993). Exploratory play with objects: Basic cognitive processes and individual differences. In M. H. Bornstein & A. W. O'Reilly (Eds.), *The role of play in the development of thought* (pp. 5–16). San Francisco: Jossey-Bass.
Idea 10

37. Schaff, R. C., & Miller, L. J. (2005). Occupational therapy using a sensory integrative approach for children with developmental disorders. *Mental Retardation and Developmental Disabilities Research Reviews, 11,* 143–148.
Idea 10

38. Schepis, M. M., Reid, D. H., Behrmann, M. M., & Sutton, K. A. (1998). Increasing communicative interactions of young children with autism using a voice output communication aid and naturalistic teaching. *Journal of Applied Learning Analysis, 31,* 561–578.
Ideas 1, 15

39. Schwartz, I. S., Sandall, S. R., McBride, B. J., & Boulware, G. L. (2004). Project DATA (developmentally appropriate treatment for autism): An inclusive school-based approach to educating young children with autism. *Topics in Early Childhood Special Education, 24*(3), 156–168.
Ideas 21, 23, 24, 27, 33, 36, 37

40. Shabini, D. B., Katz, R. C., Wilder, D. A., Beauchamp, K., Taylor, C. R., & Fischer, K. J. (2002). Increasing social initiations in children with autism: Effects of a tactile prompt. *Journal of Applied Behavior Analysis, 35*(1), 79–83.
Idea 31

41. Sherratt, D. (2002). Developing pretend play in children with autism: A case study. *Autism: The International Journal of Research & Practice, 6*(2), 169–171.
Ideas 13, 35

42. Shields, J. (2001). The NAS EarlyBird Programme. *Autism: The International Journal of Research & Practice, 5*(1), 49–56.
Idea 22

43. Simpson, R. L., & Myles, B. S. (1998). Understanding and responding to the needs of students with autism. In R. L. Simpson & B. S. Myles (Eds.), *Educating children and youth with autism: Strategies for effective practice* (pp. 1–23). Austin, TX: PRO-ED.
Idea 25

44. Solomon, M., Goodlin-Jones, B. L., & Anders, T. F. (2004). A social adjustment enhancement intervention for high functioning autism, Asperger's syndrome, and pervasive developmental disorders NOS. *Journal of Autism and Developmental Disorders, 34*(6), 649–668.
Idea 3

45. Soorya, L. V., Arnstein, L. M., Gillis, J., & Romanczyk, R. G. (2003). An overview of imitation skills in autism: Implications for practice. *The Behavior Analyst Today, 4*(2), 114–123.
Idea 4

46. Tabor, T. A., Seltzer, A., Heflin, L. J., & Alberto, P. A. (1999). Use of self-operated auditory prompts to decrease off-task behavior for a student with autism and moderate mental retardation. *Focus on Autism and Other Developmental Disabilities, 14*(3), 159–166.
Ideas 31

47. Tissot, C., & Evans, R. (2003). Visual teaching strategies for children with autism. *Early Child Development and Care, 173*(4), 425–433.
Ideas 2, 15, 16, 32

48. Whitaker, P. (2004). Fostering communication and shared play between mainstream peers and children with autism: Approaches, outcomes and experiences. *British Journal of Special Education, 31*(4), 215–222.
Ideas 7, 8, 13

49. Woods, J., & Goldstein, H. (2003). When the toddler takes over: Changing challenging routines into conduits for communication. *Focus on Autism and Other Developmental Disabilities, 18*(3), 176–181.
Idea 27

Ideas	**Supporting References**
1 Show You Know	35, 38
2 Nice Looking	11, 35, 47
3 Show Me	7, 44
4 Learn To Imitate, Imitate To Learn	17, 23, 32, 45
5 Your Turn To Imitate	17, 18, 22, 23
6 Your Turn, My Turn	1, 26, 29
7 Follow the Music	29, 48
8 Games, Games, and More Games	4, 29, 48
9 Look in the Mirror	3, 12, 30
10 Schedule Sensory Time	22, 23, 36, 37
11 Bring Out the Noise	1, 18, 22
12 When/Do Books	8, 14, 16, 31, 35
13 Puppet Play	4, 5, 29, 41, 48
14 Get Predictable	1, 22
15 Yes or No	35, 38, 47
16 Cueing Pronouns	35, 47
17 Touch, Show, Find, or Say	20, 22, 26, 28, 34
18 Wh– Game	1, 14, 22
19 Talk Prompters	1, 22
20 Conversation Cards	1, 22
21 Problem Solve with I Think, You Think	1, 27, 39
22 The Daily Scoop	9, 14, 42
23 Choice Cards	14, 15, 26, 39
24 Now–Next Picture Map	8, 13, 15, 16, 39
25 Schedule Changes	8, 12, 13, 16, 31, 43
26 Learn To Wait	13, 31
27 Teaching Independence	10, 14, 39, 49
28 Do More To Learn More	8, 11, 13
29 On Your Own	11, 13
30 Five Ways To Finish	13, 20, 33
31 Reduce Prompts	40, 46
32 Door Signs	11, 13, 35, 47
33 Four-Step Behavior Plan	13, 35, 39
34 Social Skills in Pictures	2, 6, 14, 24
35 Use Video Modeling	3, 12, 30, 41
36 Card Counters	19, 25, 39
37 Positive Reinforcement	19, 25, 39
38 What To Teach Next	20, 34
39 Direct-Teach Social Skills	7, 20, 21, 34
40 Skills Checklists	20, 34