

TEACCH (TREATMENT AND EDUCATION OF AUTISTIC AND RELATED COMMUNICATION HANDICAPPED CHILDREN)

CHARACTERISTICS OVERVIEW CHART

Verbal Skills	Grade Levels	Cognitive Level	Areas Addressed
<input checked="" type="checkbox"/> Nonverbal	<input checked="" type="checkbox"/> PK	<input checked="" type="checkbox"/> Classic	<input checked="" type="checkbox"/> (Pre)Academic/Cognitive/Academic
<input checked="" type="checkbox"/> Mixed	<input checked="" type="checkbox"/> Elementary	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Adaptive Behavior/Daily Living
<input checked="" type="checkbox"/> Verbal	<input checked="" type="checkbox"/> Middle/High	Functioning	<input checked="" type="checkbox"/> Behavior
			<input checked="" type="checkbox"/> Communication/Speech
			<input checked="" type="checkbox"/> Social/Emotional

BRIEF INTRODUCTION

According to the central deficit theory, children with autism (AU) require increased structure and task-analyzed goals in order to learn (Erba, 2000). Providing structure and organization in the learning environment on a student's level of understanding can help to alleviate or moderate challenges students with AU otherwise encounter.

DESCRIPTION

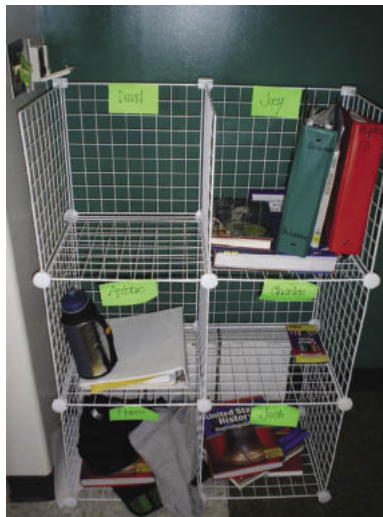
The TEACCH (*Treatment and Education of Autistic and related Communication handicapped Children*) program is a comprehensive structured teaching approach designed for individuals with autism and communication disabilities and their families. The TEACCH program was developed by Eric Schopler in the late 1970s and is administered through the University of North Carolina at Chapel Hill.

The principles of TEACCH's structured teaching include (a) understanding the culture of autism; (b) developing an individual person- and family-centered plan for each student, rather than using a standard curriculum; (c) structuring the physical environment in a way that will assist students with autism to understand meaning; (d) using visual supports to make the sequence of daily

activities predictable and understandable; and (e) using visual supports to make individual tasks understandable.

The principle of modifying the environment to accommodate the needs of students with autism is the foundation for structured teaching (Schopler, Mesibov, & Hearsey, 1995). Four main components are connected to this process:

1. *Physical organization.* Physical organization refers to the physical layout of the classroom or the area for teaching. Physical organization helps or hinders a student’s independent functioning and his recognition of and compliance with rules and limits. It is designed to provide students with visual information to direct their activities in a predictable manner. *Note:* This and the following photos were contributed by Melissa Trautman.



2. *Scheduling.* Since students with autism have problems with sequential memory and organization of time, they need schedules. Visual schedules let the students know what activities will take place and in what sequence (Schopler et al., 1995) and assist them in predicting events, lessening their anxiety.

**TARGET: TEXAS GUIDE FOR EFFECTIVE TEACHING
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School Year Schedule

	Class	Teacher/Room
1 st hour 7:45 – 8:30	Social Studies	Jones/310
2 nd hour 8:35 – 9:20	Math	Smith/308
3 rd hour 9:25 – 10:10	Social Skills (Navigator room)	Trautman/110
4 th hour 10:15 – 11:00	Expo rotation – Start with computer	Kovacic
5 th hour 11:05 – 11:30	Reading	Brown/302
11:30 – 12:00	LUNCH	
12:05 – 12:20	Reading continued	
6 th hour 12:25 – 1:10	Science	Thomas/305
7 th hour 1:15 – 2:00	CA	Greent/302
8 th hour 2:05 – 2:50	Guided Study	Trautman/110



3. *Work systems.* Work systems tell the students what activities must be completed in independent work areas by visually specifying what and how much work must be done and indicating when each task and the work session are complete (Schopler et al., 1995).



4. *Task organization.* Similar to work systems, task organization determines what work students do independently, what needs to be done within a task, how many items must be completed, and final outcomes (Schopler et al., 1995).



Individual work task: Matching by color (from www.tinsnips.com)

Structured teaching uses materials frequently found in educational, home, vocational, and residential settings for individuals with autism, and it may be administered by anybody who works with this population. Nevertheless, structured teaching training is highly recommended; it is available through Division TEACCH (www.teacch.com).

STEPS

The TEACCH approach calls on a wide range of techniques and services to meet the individual needs of children and families. The ultimate goal is to foster independence and understanding while providing individuals with AU the tools they need to successfully interact in the environment.

BRIEF EXAMPLE

Mike is a third-grade student with autism. He has difficulty completing in-class assignments due to his poor organizational skills and becomes distracted easily. His teacher, Ms. Cooper, created a small work area in a corner of the classroom with a table that faced the wall where Mike could complete his in-class assignments.

In Mike's work area, he has a sequence strip of individual numbers 1-10 attached by Velcro™ to his desk. He also has multiple "work jobs" located to his left. To complete tasks in the work system, he takes the number "1" off his number strip and matches it to the number "1" located on one of the work jobs. This is the task he must complete first. He continues matching numbers to tasks in order to complete the tasks in a specified, sequential order.

SUMMARY

The TEACCH approach utilizes individuals' relative strengths (Schopler et al., 1995) and is appropriate for individuals with autism of all ages and developmental levels. The principles of structured teaching support individuals with autism in understanding their world better and enable them to be more independent and productive.

RESEARCH TABLE

Number of Studies	Ages (year)	Sample Size	Area(s) Addressed	Outcome
14*	2-adult	477	Working skills, functional communication abilities, problem behaviors, play skills, personal independence, social abilities, cognitive skills, academic skills, prevocational skills, imitation, fine motor, gross motor, and nonverbal conceptual skills, latency	+

*Note: Also see studies on visual environmental supports, rules, and routines, and adult-mediated social skills strategies—component of the TEACCH model.

STUDIES CITED IN RESEARCH TABLE

1. Probst, P., Jung, F., Micheel, J., Glen, I. (2010). Tertiary-preventative interventions for autism spectrum disorders (ASD) in children and adults: An evaluative synthesis of two TEACCH based outcome studies. *Life Span and Disability, 13(12)*, 129-167.
This study reports on the successful reduction of problem behavior and moderate improvements in functional skills for 4 participants with ASD (1 child and 3 adults) using a TEACCH-based intervention model. Since reports are only presented in a pre-post design and baseline and outcome measures were not reported for every case, results should be interested with caution.
2. Hume, K., & Odom, S. (2007). Effects of an individual work system on the independent functioning of students with autism. *Journal of Autism and Developmental Disorders, 37*, 1166-1180.
Three students with autism participated in the study examining the effects of a work system on independent work and play skills. Observational data indicated that all students showed increases in on-task behavior and in the number of tasks completed or play materials utilized, and reduction of teacher prompts. The results were maintained through the one-month follow-up.
3. Tsang, S.K.M., Shek, D.T.L., Lam, L. L., Tang, F. L. Y., & Cheung, P.M.P. (2007). Brief report: Application of the TEACCH program on Chinese pre-school children with autism – Does culture make a difference? *Journal of Autism and Developmental Disorders, 37*, 390-396.
A longitudinal study was conducted with 34 children with autism to evaluate the usefulness of the TEACCH program for Chinese preschool children in Hong Kong. Eighteen children received full-time, center-based TEACCH training. The control group included 16 children who received different types of individualized or group training but not TEACCH training. Children in the TEACCH group showed better outcomes at posttest. The study provided initial support for the effectiveness of using the TEACCH program with Chinese children.

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4. Siaperas, P., & Beadle-Brown, J. (2006). A case study of the use of a structured teaching approach in adults with autism in a residential home in Greece. *Autism, 10*, 330-343.
Using interview questionnaires and systematic naturalistic observations, this case study explored the effectiveness of structured teaching for 12 adolescents and adults with autism who had never received any other intervention or training. The categories evaluated were personal independence, social abilities, and functional communication. After a period of six months, the adolescents and adults showed significant progress in these three areas.
5. Francke, J., & Geist, E. A. (2003). The effects of teaching play strategies on social interaction for a child with autism: A case study. *Journal of Research in Childhood Education, 18*, 125-140.
Play skills were taught to a 3-year-old boy with autism using a structured teaching method, modeled after TEACCH. At the end of the nine-week period, significant changes were observed in how the boy engaged in social play with adults and peers.
6. Van Bourgondien, M. E., Reichle, N. C., & Schopler, E. (2003). Effects of a model treatment approach on adults with autism. *Journal of Autism and Developmental Disorders, 33*, 131-140.
Thirty-two adolescents and adults with autism participated in the study, which evaluated the effectiveness of a residential program, based on the TEACCH model, in improving the quality of the treatment program and the adaptation of individuals with autism with severe disabilities. The results indicated that participants experienced gains in communication, independence, socialization, developmental planning, and positive behavior management compared to participants in control settings.
7. Panerai, S., Ferrante, L., & Zingale, M. (2002). Benefits of the Treatment and Education of Autistic and Communication Handicapped Children (TEACCH) program as compared with a non-specific approach. *Journal of Intellectual Disability Research, 46*, 318-327.
Two educational treatments were compared, the TEACCH program and the integration program for individuals with disabilities. Two groups of eight subjects were matched by gender, chronological and mental age, and nosographic diagnosis. The TEACCH program was applied to the experimental group, while the control group was integrated in regular schools with a support teacher. The Psycho-Educational Profile-Revised and the Vineland Adaptive Behavior Scale were administered twice with a one-year interval between assessments. The scores of the experimental group increased more than those of the control group. Statistically significant differences were obtained in both groups because of the differences in the two approaches.
8. Dettmer, S., Simpson, R., Myles, B., & Ganz, J. (2000). The use of visual supports to facilitate transitions of students with autism. *Focus on Autism and Other Developmental Disabilities, 15*, 163-170.
A combination of visual supports and structured work systems for two elementary-age boys with autism was evaluated. The visual supports were used to aid transitions from one activity to another in community and home settings. The data revealed a significant

decrease in the latency between the time the students were given instructions and the time they began the next activity when the visual supports were used. Visual supports also resulted in a significant decrease in teacher-delivered prompts.

9. Persson, B. (2000). Brief report: A longitudinal study of quality of life and independence among adult men with autism. *Journal of Autism and Developmental Disorders, 30*, 61-66. This study examined whether seven adults with autism and mental retardation, who had not previously been treated using the TEACCH structured teaching method, would benefit with respect to independence, skills, and quality of life. The results from the 2.5-year study showed that all participants made progress across time.
10. Panerai, S., Ferrante, L., Caputo, V., & Impellizzeri, C. (1998). Use of structured teaching for treatment of children with autism and severe and profound mental retardation. *Education and Training in Mental Retardation and Developmental Disabilities, 33*, 367-374. A multidimensional assessment procedure was used to evaluate the effects of the TEACCH program principles and strategies after 12 and 18 months of structured intervention. The sample was composed of 18 children and adolescents with autism, with a mean chronological age of 13 and a mean mental age of 16 months. Results showed an increase in working skills and functional communication abilities. In addition, structured teaching seemed to reduce maladaptive behaviors, allowing easier management of behavioral problems.
11. Ozonoff, S., & Cathcart, K. (1998). Effectiveness of a home program intervention for young children with autism. *Journal of Autism and Developmental Disorders, 28*, 25-32. This study evaluated the effectiveness of a TEACCH-based home program intervention for children with autism. Parents were taught how to work with their preschool child with autism in the home setting, focusing on cognitive, academic, and prevocational skills essential to later school success. Two matched groups of children (2-6 years old) were compared, a treatment group and a no-treatment control group, each consisting of 11 participants. Results demonstrated that children in the treatment group improved significantly more than those in the control group on imitation, fine-motor, gross-motor, and nonverbal conceptual skills. Progress in the treatment group was three to four times greater than in the control group on all outcome tests.
12. Panerai, S., Ferrante, L., & Caputo, V. (1997). The TEACCH strategy in mentally retarded children with autism: A multidimensional assessment: Pilot study. *Journal of Autism and Developmental Disorders, 27*, 345-347. A multidimensional assessment was used to evaluate whether the TEACCH program treatment used with 18 children with autism (aged 7-18) with severe and profound mental retardation increased learning capacities and adaptive behavior and reduced behavioral problems. Results indicated that progress was made in areas of communication, socialization, self-help care, perception, motor activities, and cognitive performance.

13. Potter, C. A., & Whittaker, C. A. (1997). Teaching the spontaneous use of semantic relations through multi-pointing to a child with autism and severe learning disabilities. *Child Language Teaching & Therapy, 13*, 177-193.

This study examined a three-element teaching model (individualized highly structured teaching, engineered environments, and spontaneous communication) focusing on spontaneous communication, undertaken through practitioner research, with a nonverbal 5-year-old boy with autism and severe learning disabilities. The three elements were employed to encourage multi-pointing. Results indicated high rates of spontaneous use of multi-pointing to indicate “location,” “agent,” and “object.”

14. Schopler, E., Mesibov, G., & Baker, A. (1982). Evaluation of treatment for autistic children and their parents. *Journal of the American Academy of Child Psychiatry, 21*, 262-267.

This article reviewed five systematic studies evaluating outcome elements of the TEACCH program. Questionnaires were returned by 348 families who had participated in the program. The family members with autism were 2-26 years old, and their intellectual functioning ranged from severe retardation to average. Specifically, the studies evaluated (a) the effect of program structure, (b) home observation of child behaviors before and after treatment, (c) behavioral ratings of parents’ teaching effectiveness before and after treatment, (d) parents’ and therapists’ perceptions of treatment outcome and (e) long-range outcome as measured by rate of institutionalization. The outcome studies offer a cumulative body of outcome evidence for treatment effectiveness.

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RESOURCES AND MATERIALS

- Division TEACCH: <http://www.teacch.com/>
A part of the TEACCH website, this webpage gives extensive, practical information for classroom implementation of structured teaching.
- TEACCH: http://www.autismtaskforce.com/downloads/teacch_august_2006.pdf
This links the user to a concise fact sheet regarding structured teaching
- Structured Work Systems: Evidence-Based Practice Brief. National Professional Development Center on Autism Spectrum Disorders:
<http://autismpdc.fpg.unc.edu/content/structured-work-systems>
The NPDC has developed evidence-based practice (EBP) briefs for their identified EBP. Each brief contains an overview, step-by-step directions for implementation, implementation checklist, and evidence base.
- Project TEACCH: Association for Science in Autism Treatment (ASAT):
<http://www.asatonline.org/intervention/treatments/teacch.htm>
Gives brief description of this intervention, a research summary and recommendations.
- Structured Work Systems and Activity Organization: Autism Internet Module:
http://www.autisminternetmodules.org/user_mod.php
The Autism Internet Modules were developed with one aim in mind: to make comprehensive, up-to-date, and usable information on autism accessible and applicable to educators, other professionals, and families who support individuals with autism spectrum disorders (ASD).
- Mesibov, G. B., Shea, V., & Schopler, E. (2005). *The TEACCH approach to autism spectrum disorders*. New York: Kluwer Academic/Plenum.
This book describes the TEACCH approach.

GENERAL RESOURCES

- Autism Internet Modules (AIM) www.autisminternetmodules.org. The Autism Internet Modules were developed with one aim in mind: to make comprehensive, up-to-date, and usable information on autism accessible and applicable to educators, other professionals, and families who support individuals with autism spectrum disorders (ASD). Written by experts from across the U.S., all online modules are free, and are designed to promote understanding of, respect for, and equality of persons with ASD.
- The Autism Web Course: http://cdd.unm.edu/swan/autism_course/about/index.htm. This web course was developed out of materials from the Interactive Collaborative Autism Network (ICAN). The Autism Programs at the University of New Mexico has updated and added information to this web course.

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- Characteristics
 - Assessment
 - Academic Interventions
 - Behavioral Interventions
 - Communication Interventions
 - Environmental Interventions
 - Social Interventions
 - Family Support Suggestions
- Indiana Resource Center for Autism (IRCA)
<http://www.iidc.indiana.edu/irca/fmain1.html>. The Indiana Resource Center for Autism staff's efforts are focused on providing communities, organizations, agencies, and families with the knowledge and skills to support children and adults in typical early intervention, school, community, work, and home settings.
 - IRCA Articles: <http://www.iidc.indiana.edu/index.php?pageId=273>
 - Texas Statewide Leadership for Autism www.txautism.net. The Texas Statewide Leadership for Autism in conjunction with the network of Texas Education Service center with a grant from the Texas Education Agency has developed a series of free online courses in autism. Please check the training page, www.txautism.net/training.html, for update lists of courses, course numbers and registration information. Current courses include the following:
 - Asperger Syndrome 101
 - Augmentative and Alternative Communication and the Autism Spectrum
 - Autism for the General Education Teacher
 - Autism 101: Top Ten Pieces to the Puzzle
 - Classroom Organization: The Power of Structure for Individuals with ASD
 - Communication: The Power of Communication for Individuals with ASD
 - Futures Planning for Students with Autism Spectrum Disorder
 - Navigating the Social Maze: Supports and Interventions for Individuals with ASD
 - Solving the Behavior Puzzle: Making Connections for Individuals with ASD