

DIRECT INSTRUCTION

CHARACTERISTICS OVERVIEW CHART

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

BRIEF INTRODUCTION

Increasing numbers of children with autism being educated in general education settings have prompted efforts to ensure that ample opportunities for individualized instruction are provided within the daily activities and routines of the classroom. This is particularly critical for students whose early learning experiences have primarily been limited to structured one-to-one teaching guided by ongoing assessment and data collection. Direct instruction, a teacher-directed method, may be a practicable option.

DESCRIPTION

“Direct instruction” is described as teacher-directed and fast-paced, using a highly structured presentation of antecedents and consequences (Gersten, Woodward, & Darch, 1986). This meticulously developed, highly scripted method allows constant interactions between the student and the teacher. The responsibility for student learning rests directly with the teacher’s design and delivery of instruction, which includes frequent opportunities to respond during the initial teaching sequence.

Features of the direct instruction approach include:

- Use explicit, systematic instruction based on scripted lesson plans.

- Emphasize pace and efficiency of instruction.
- Use simple instructions to ensure clear communication.
- Conduct frequent assessments to help place students in ability groups and identify students who require additional intervention.
- Teach skills in sequence until students have fully internalized them and are able to generalize them.
- Use in either group instruction or a one-to-one instructional setting.

Direct instruction may refer to Rosenshine’s (1976) set of effective teaching practices, Hunter’s (1980) Instructional Theory into Practice (ITIP) model, or the model described in Project Follow Through by Becker, Engelman, Carnine, and Rhine (1981). More recently, direct instruction has become synonymous with structured teaching methods of any type (Gersten et al., 1986).

STEPS

A typical direct instruction lesson includes explicit and carefully sequenced instruction provided by the teacher along with frequent opportunities for students to practice their skills over time (Marchand-Martella, Martella, & Ausdemore, 2005). Generally speaking, three processes are involved:

1. Teacher identifies and develops appropriate content for teaching.
2. Teacher gives initial instruction to students. Modeling may be an efficient strategy to utilize.
3. Students practice or review the content.

If an error occurs during instruction, the teacher instructs again or models using guided practice (i.e., “Say it with me”) and has students practice independently. Sometimes a “starting over” is conducted based on the error.

BRIEF EXAMPLE

Ms. Miller is teaching the sound /m/ to John. She starts the lesson by telling John, “You are going to learn a new sound.” She shows John the letter and says, “My turn to say it. I’ll keep on saying it as long as I touch it.” Then she models, “Get ready. Mmm.” She models the /m/ sound again by saying, “My turn again. Get ready. Mmm.” After modeling, Ms. Miller turns to John and says, “Your turn. When I touch the letter, you say the sound. Keep on saying it as long as I touch it. Get ready.” John practices the sound. Ms Miller then requests, “Again, get ready.” John follows the direction and says, “Mmm.”

TIPS FOR MODIFICATIONS

Direct instruction is uniquely designed to promote success for students with special needs. By nature, modifications are redundant since the purpose of a direct instruction lesson is to meet the unique needs of students who are struggling in school.

SUMMARY

Direct instruction is a teacher-directed teaching method. It is meant to accelerate student progress; therefore, lessons are designed to bring students to mastery as quickly as possible. Various direct instruction programs are available.

RESEARCH TABLE

Number of Studies	Ages (year)	Sample Size	Area(s) Addressed	Outcome
9	4-14	49	Academic, task engagement, language, play, reading comprehension, social skills, and task completion.	+

STUDIES CITED IN RESEARCH TABLE

- Banda, D.R., Hart, S.L. (2010). Increasing peer-to-peer social skills through direct instruction of two elementary school girls with autism. *Journal of Research in Special Education Needs, 10(2)*, 124-132.

Two elementary-school aged girls with ASD were each taught three social skills using direct instruction within a multiple-base-line-across-skills design. Both girls increased their initiation to each other and a typically developing peer following teaching, but only one showed increases in responses to another person’s initiation, and neither showed an increase in sharing.
- Banda, D.R., Hart, S.L., Liu-Gitz, L. (2010). Impact of training peers and children with autism on social skills during center time activities in inclusive classrooms. *Research in Autism Spectrum Disorders, 4*, 619-625.

Two 6-yr-old boys with ASD were taught two social skills using direct instruction within a multiple-baseline across participants design. Both participants showed increased initiations to peers and responses to peers following the direct instruction.
- Fisher, J. L., Howard, J. S., Sparkman, C. R., & Moore, J. L. (2009). Establishing generalized syntactical responding in young children with autism. *Research in Autism Spectrum Disorders, 4*, 76-88.

Four preschool children, ages 3 and 4, participated in a study designed to increase utterances using direct instruction with a chain of photographs. Words per photograph increased after the training occurred.
- Flores, M. M., & Ganz, J. B. (2009). Effects of direct instruction on the reading comprehension of students with autism and developmental disabilities. *Education and Training in Developmental Disabilities, 44(1)*, 39-53.

This study investigated effects of a direct instruction reading comprehension program implemented with four students with autism and developmental delays. A functional relation between direct instruction and reading comprehension skills and behaviors was demonstrated across all behavioral conditions and across students. Data were also collected using curriculum-based assessments and all students showed improvement.

5. Bouxsein, K. J., Tiger, J. H., & Fisher, W. W. (2008). A comparison of general and specific instruction to promote task engagement and completion by a young man with Asperger Syndrome. *Journal of Applied Behavior Analysis, 41(1)*, 113-117.
The purpose of the current study was to compare the rates of task completion of a 19-year-old man diagnosed with Asperger syndrome when provided with general and specific instructions pertaining to the task. The results showed that specific instructions occasioned higher levels of task completion, even when no reinforcement was used.
6. Flores, M. M., & Ganz, J. B. (2007). Effectiveness of direct instruction for teaching statement inference, use of facts, and analogies to students with developmental disabilities and reading delays. *Focus on Autism and Other Developmental Disabilities, 22*, 244-251.
Four students with developmental disabilities, including autism and reading delays, participated in the study, which investigated the effects of a direct instruction (DI) reading comprehension program. A functional relationship between DI and reading comprehension skills and behaviors was demonstrated across all behavioral conditions and across students. Results indicated positive outcomes.
7. Kroeger, K. A., Schultz, J. R., & Newsom, C. (2007). A comparison of two group-delivered social skills programs for young children with autism. *Journal of Autism and Developmental Disorders, 37*, 808-817.
The study compared the effectiveness of two social skills groups: the direct teaching group and the play activities group. The direct teaching group used a video-modeling format to teach play and social skills while the play activities group engaged in unstructured play. Twenty-five children with autism were assigned to one of two groups. Findings suggested that while members of both groups increased prosocial behaviors, the direct teaching group made more gains.
8. Kroeger, K. A., & Nelson, W. M. (2006). A language programme to increase the verbal production of a child dually diagnosed with Down Syndrome and autism. *Journal of Intellectual Disability Research, 50*, 101-108. This single-subject experiment examined a program designed to increase the language production and verbal behavior of a 9-year-old boy who had been receiving a 15-hour per week home-based discrete trial training program. Results indicated that language production noticeably increased for each target area after the introduction of the language program and was maintained at a nine-month follow-up session. Thus, a combined treatment approach incorporating direct instruction, natural environment teaching, and incidental teaching was effective for increasing and maintaining responsive and spontaneous speech in a child with Down Syndrome diagnosed with autism.
9. Losardo, A., & Bricker, D. (1994). Activity-based intervention and direct instruction: A comparison study. *American Journal on Mental Retardation, 98*, 744-765.
An alternating-treatment design was used to compare the effectiveness of two intervention procedures – direct instruction and activity-based instruction – on the acquisition and generalization of object names by six preschool-age children who had developmental delays

or were at risk for such delays. Results of the study suggest there may be no winners and no losers when comparing direct instruction and activity-based intervention.

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Marchand-Martella, N., Martella, R., & Ausdemore, K. (2005). *An overview of direct instruction*. Retrieved June 30, 2008, from www.newhorizons.org/spneeds/inclusion/teaching/marchand%20martella%20ausdemore.htm

Rosenshine, B. (1976). Recent research on teaching behavior and student achievement. *Journal of Teacher Education*, 27, 61-64.

RESOURCES AND MATERIALS

- The Autism Web Course: Direct Instruction Module: http://cdd.unm.edu/swan/autism_course/modules/academic/direct/index.htm
- Direct Instruction. Instructional Strategies Online: <http://olc.spsd.sk.ca/de/pd/instr/direct.html>. This resource for teachers includes different methods of direct instruction.
- National Institute for Direct Instruction: <http://www.nifdi.org/15/>
Founded by the creators of direct instruction, this organization seeks to provide quality programming for teachers and school districts.

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.
 - 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