



DTORF-R IN BRIEF

Developmental Teaching Objectives and Rating Form-Revised

Developmental Therapy Institute, Inc. DTT Programs

www.developmentaltherapyinstitute.org
print or internet-based DTORF-R versions
www.dtorf.com

DTORF-R is a well-researched classroom tool for assessment of student performance that targets social-emotional competence and responsible behavior. It offers specific entry points for establishing IEP objectives precisely matched to a student's current stage of social-emotional and behavioral development. With proven reliability and validity as a functional behavioral assessment, it is used to identify a student's stage of development and IEP objectives, plan targeted instruction, design behavioral supports, and document student progress toward selected learning goals. With 171 universally recognized social-emotional and behavioral benchmarks that align sequentially with typically developing students in a general education curriculum, DTORF-R brings inclusive special and general education together. With repeated evidence of effectiveness, it has been used for students with emotional/behavioral disabilities (EBD), autism spectrum, or other special needs, whether in inclusive general education or in Tier I, 2, or 3 levels of support. Repeated DTORF-R assessments provide measures of individual and group progress toward established objectives, meeting expectations to improve student outcomes defined in the current *Every Student Succeeds Act* (ESSA, 2015), while also meeting previous standards defined in the *No Child Left Behind Act* of 2001 (NCLB), *Individuals with Disabilities Education Improvement Act* (IDEA, U.S. Department of Education, 1997, 2004, 2005, 2015).¹

Psychometric Information About DTORF-R

Acceptable psychometric properties have been established for DTORF-R from extensive field research over several decades with quasi-experimental research methods that meet standards for measurement validity and reliability. Because it was developed to meet a need for a practical classroom tool with direct connection to instruction, DTORF-R is not administered as a strictly standardized testing procedure, nor does it produce scores for comparison with a normative group. Rather, it emphasizes careful observation and knowledge about a student's behavior individually and in a group as the basis for rating a student's achievement of competencies on a sequential pathway for social-emotional development and responsible behavior.²

Construct Validity. Construct validity for every DTORF-R item was established from an extensive analysis of research findings about competencies required of all students that support them in learning at various ages and stages of development from birth to age 16 years 11 months. To select content that would represent the priority issue—social, emotional, and behavioral development at every age—an extensive review was undertaken to identify psychological processes widely recognized as constructs of needed competencies. From this initial study of more than 164 developmental theorists, researchers, and psychologists, four major developmental domains became evident: *Behavior* (DOING), *Communication* (SAYING), *Socialization* (RELATING), and *Cognition* (THINKING). Within each domain, a large pool of universally recognized indicators of healthy personality development was formed. These indicators were then organized into sequential developmental pathways for specific age groups and stages within each domain from birth through age 16. Specific characteristics were further defined in operational terms as observable behaviors and sequenced into the four domain subscales. Finally, to verify that every item had validity for its domain within the subscales, each item was referenced directly back to the original domain analyses.³ In the final item pool, 171 competencies were included, covering the age range from birth to 16 years 11 months.⁴

Eight criteria were used for final inclusion of an item.

- Contributes to a broad, comprehensive functional assessment in one or more of the domains essential for student's social-emotional and behavioral development: Behavior, Communication, Socialization, and Cognition.
- Reflects a strength rather than a deficit.
- Represents a desired functional competency.
- Describes a key competency for social, emotional, or behavioral development, birth to the teen years.
- Occurs in a logical sequence of increasing complexity.
- Has internal consistency across the developmental domains.
- Conveys clear meaning for parents, professionals, and paraprofessionals with diverse backgrounds.
- Contains sufficient specificity to judge and document mastery.
- Facilitates repeated measure of student progress, individually and in groups at regular intervals.^{5 6}

Content Validity. To evaluate the relevance of the selected items for use with students with EBD, a panel of educators, mental health professionals, and parents were asked to independently review each item for importance to the education of students of different ages, races, and types of social, emotional, and behavioral disabilities. They also reviewed the scope of selected items to consider other content that may have been overlooked or excluded. The educators were experienced in general and special education, and included early childhood specialists. The parents were those who had first-hand experience with mental health needs in their families. Among the mental health professionals were social workers, psychologists, psychiatrists, paraprofessionals, and community service volunteers working in clinical settings.⁷

Internal Reliability (Consistency). Internal item reliability estimates of .99 for each DTORF-R domain subscale were obtained from Kuder-Richardson type analysis of ratings of 300 students with EBD in Georgia's GNETS Tier 3 program. Certified special education teachers in GNETS trained in accurate use of the DTORF-R procedures achieved high item-by-item inter-rater reliability of .93, .94, .94, and .96. To obtain a measure of the consistency of individual scores, the standard error of measurement (SEM) was calculated for these same DTORF-R data (pre-test SEM = .62, post-test SEM = .74) using a 95% confidence band. These measures provide estimates of variability that would result from an individual's score if it were possible to obtain repeated measures without practice effect or growth by a student. Thus, reliable estimates of a student's true DTORF-R score can be made with considerable confidence.^{8 9 10}

Sequential Item Difficulty. Further studies explored the sequences for increasing item difficulty with a Guttman-type scalogram and then the Rasch dichotomous model to statistically calibrate item difficulty on each of the four domain subscales. Logit values were calculated for every item on each subscale using 300 entry-level DTORF-R ratings of students with severe emotional/behavioral disabilities, ages 2 to 14 years. Results indicated that the correct statistical sequence was present for 91% of the items on the *Behavior* subscale, 94% of the items for *Communication*, 88% for *Socialization*, and 79% for *Cognition*. The few items found to be out of order were subsequently reviewed by an expert panel and re-ordered, re-written, or eliminated.¹¹

DTORF-R Measures Student Progress

Individual and Group Analyses of Student Scores. To document students' annual yearly progress and for quasi-experimental studies to document effectiveness of DTT practices, three separate studies were submitted to the U.S. Department of Education effectiveness review panels and approved as "programs that work."^{12 13} Dependent *t*-tests compared changes in group means with repeated measures showing significant group gain in competencies during a school year. Growth curve comparisons also revealed significant improvement in individual skill acquisition over time, and multivariate analyses explored interaction effects of teachers, schools, and student characteristics on student DTORF-R outcome scores.^{14 15}

Sensitivity to Diversity. DTORF-R has been used to assess competencies of students with a range of challenges including autism, intellectual delay, and language, hearing, or visual disabilities. It has been equally useful for assessing students who have multiple disabilities, gifted, or with no disabilities. It has been successfully used with culturally and racially diverse groups and by teachers internationally because of its universal content relevance and adaptability to local standards and cultures. Multicultural, geo-cultural, economic, gender, and racial studies of similarities and differences among students show similar statistically significant progress on IEP objectives as measured by DTORF-R scores. These results occurred whether the schools were in rural southern, migrant multicultural, Caribbean, or suburban/urban metropolitan communities as well as in low, low-middle, and middle-upper income communities. Additionally, educators from eight nations at international conferences expressed generally similar views that the DTORF-R allows freedom for cultural

diversity in assessing how each student demonstrates mastery of the competencies. They also report that it allows for blending of expectations and values that are unique to individuals, families, schools, cultures, and communities while maintaining a direction for learning that fosters social-emotional-behavioral maturation.¹⁶

End Notes

- ¹ U. S. Department of Education (1997, 2004, 2005, 2015). *Individuals with Disabilities Education Improvement Act (IDEA); Every Student Succeeds Act, 2015 (ESSA)*. Available: www2.ed.gov.
- ² Wood, M. M., Quirk, C. A., & Swindle, F. H. (2007). *Teaching Responsible Behavior: Developmental Therapy-Developmental Teaching, 4th ed.* (Chapter 3). Austin, TX: PRO.ED.
- ³ Swan, W. W. & Wood, M.M. (1975), Making decisions about treatment effectiveness. In M. M. Wood (Ed.), *Developmental Therapy: A Textbook for Teachers as Therapists for Emotionally Disturbed Young Children (1st Edition, Chapter 3)*. Baltimore, MD: University Park Press.
- ⁴ Developmental Therapy Institute (2012). DTORF-R scope and sequence item analysis charts. *User's Manual: DTORF-R and E-DTORF Assessment and Accountability System*, pp. 24-28. Available: <http://www.developmentaltherapyinstitute.org/store>.
- ⁵ Teagarden, J., Kaff, M., & Zabel, R. (2013). Rediscovering the art of developmental therapy: An interview with Mary M. Wood. *Intervention in School and Clinic*, 48 (4), 254-261.
- ⁶ Developmental Therapy Institute (2012, p.2). *How valid is the content?*
- ⁷ Swan & Wood (1975), pp. 42-44.
- ⁸ Wood, M. M., Davis, K. R., & Swindle, F. H. (1996). *Twenty-Five Years of Developmental Therapy-Developmental Teaching: A Summary of Program Effectiveness*. Available: <http://www.developmentaltherapyinstitute.org>.
- ⁹ National Research Council (2002). Scientific research in education. In R. J. Shavelson & L. Towne (Eds.), *Committee on Scientific Principles for Educational Research*. Washington, DC: National Academy Press.
- ¹⁰ Curran, P. J., & Hussong, A. M. (2001). Structural modeling of repeated measures data. In D. Moskowitz & S. Hershberger (Eds.), *Modeling Intra-individual Variability with Repeated Measures Data: Methods and Applications* (pp. 58-86). New York: Erlbaum.
- ¹¹ Weller, D. L. (1991). Application of a latent trait model to the developmental profiles of SED/SBD students (Doctoral dissertation, University of Georgia, 1990). *Dissertation Abstracts International*, 51.
- ¹² U.S. Department of Education (1995,1981,1996). Three separate validation studies; Program Effectiveness Panel. National Institute of Education, Washington, DC: Author.
- ¹³ Evidence of Program Effectiveness. Available: <http://www.developmentaltherapyinstitute.org/Read More>.
- ¹⁴ U.S. Department of Education. (2005). Scientifically Based Evaluation Methods. Federal Register: January 25, 2005. Available: <http://www.ed.gov/news/fedregister>.
- ¹⁵ Shadish, W. R., Cook, T. D., & Campbell, D.T. (2002). *Experimental and Quasi-Experimental Designs for Generalized Causal Inference*. Boston: Houghton Mifflin.
- ¹⁶ Wood, M. M., Davis, K. R., & Swindle, F. H. (1998). *Documenting Effectiveness* (Table 2 and pp.18-19). Available: <http://www.developmentaltherapyinstitute.org>.