Denver Developmental Screening Test (DDST), DENVER II


Contact Information
William K. Frankenburg MD
Department of Pediatrics
University of Colorado Medical Centre
4200 East Ninth Ave
Denver, Colorado  80220
Denver Developmental Materials Inc.
(800) 419-4729

Price & Availability – Can order through instrument website, download order form. Various training materials available. See website for price details.

Brief Description of Instrument – Screening test, assessing developmental progress for children 0-6 years of age. Defines the ages at which children accomplish a broad variety of heterogeneous tasks.

Scale Format – Check boxes, administrator notes, 125 items.

Administration Technique – Interview/skill demonstration. Optimal if test administrator is trained. DENVER II Technical Manual contains training protocol, available for order online. See website.

Scoring and Interpretation – Scoring manual available, see website.
Factors and Norms – Denver II Technical Manual contains tables depicting the standardization samples, specific characteristics of the potential items such as number of administrations for the standardization, number and percent of “refusal” and “no opportunity” scores, subjective ratings, covariable differences, and reliability. Also included are specifics of sample distribution, behaviour and speech ratings by age, K statistics, and 25%, 50%, 75% and 90% passing norms and standard errors of the items for which subgroup norms are clinically significantly different from the composite norms.

Test-retest Reliability – Testing on two occasions by 2 pairs of trained examiners. On the same day, the child was tested twice, after 5-10 minutes, and the same child was tested again, by the same examiners after an interval of 7-10 days. High rate of agreement observed. See update citation for details.

Inter-rater Reliability – Same child rated by two examiners who did not have knowledge of how the other was scoring. 59% of items had inter-rater agreement, k >= 0.75, 23% in fair-good range, k>= 0.40.

Internal Consistency – Items to be included selected on 9-point criteria. See update citation for details.

Construct Validity – Comparable to a growth curve, no hypothetical construct to measure.

Criterion-Related Validity – Standardized to population norm.
Responsive to Change Over Time – Age specific norms provided.

Content & Face Validity – Validity of Denver II established by the precision with which the ages corresponding to 25%, 50%, 75% and 90% passing for each item and subgroup have been determined - standardized on more than 2000 children.

Strengths – Norms provided for population and subgroups. Training materials available to ensure accurate administration.

Limitations – Appropriate referral criteria requires further study, no norms available since different communities have different criteria for referral.

Notes for Consideration – Norms provided for USA, in original citation, other researchers have published standards for various regions, check literature.


Related Methods Articles (Not Reviewed) – Glascoe, FP., Byrne et al. Accuracy of the DENVER II in developmental screening Ped. 1992 June; 89;1221-1225.