

BRIGANCE® DIAGNOSTIC

INVENTORY OF EARLY DEVELOPMENT-II

IED-II

Standardisation and Validation Manual

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Revised Australian Edition

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CHAPTER 1. RATIONALE FOR THE DEVELOPMENT, STANDARDISATION AND VALIDATION OF THE BRIGANCE® DIAGNOSTIC INVENTORY OF EARLY DEVELOPMENT–II (IED–II)

Until its recent revision, the *BRIGANCE® Diagnostic Inventory of Early Development* was exclusively a criterion-referenced measure, widely used in curricular planning, assessment of school readiness skills and in the development of Individual Educational Programs (IEPs). With the publication of the *BRIGANCE Diagnostic Inventory of Early Development–II (IED–II)*, the test is also standardised and validated for children zero to seven years of age. Educational personnel can continue to obtain detailed information about children's skill levels, but now they may also derive quotients, percentile ranks and validated age-equivalent scores. Thus the *IED–II* can be used for diagnostic as well as classroom assessment, progress monitoring and program evaluation. The *IED–II* test binder describes changes from the previous to the current editions. This manual focuses exclusively on the standardisation and validation of the *IED–II* and includes the norm tables (which are also embedded in the optional scoring software to make score derivation easier).

Purpose of the IED–II

The *IED–II* is designed to be administered by teachers, developmental and school psychologists and other early childhood professionals. To meet their needs, the *IED–II* produces a complete range of information on children's developmental progress through distinct skill sequences as demonstrated under real-life, everyday conditions. Because it continues to be criterion-referenced, the *IED–II* enables professionals to compare each child's performance to mastery of specific skills.

The standardised portions enable professionals to compare children's mastery of skills to that of other children of the same age. As a consequence, the *IED–II* meets assessment requirements and can be used as the educational and adaptive behaviour portion of a battery that identifies children with learning disabilities, mental retardation, language impairment or other exceptionalities. Specifically, the *IED–II* produces age equivalents, percentiles and quotients needed for normative assessment of skills in daily living skills, fine motor, gross motor, social-emotional, prevocational abilities, self-help skills, language, academic/cognitive and adaptive behaviour.

The *IED–II* identifies children's strengths and weaknesses across skill areas. Consequently, the measure continues to be indispensable in the development of IEPs. By comparing performance across skill areas, it is possible to see whether children have, for example, strengths in specific aspects within developmental domains (e.g., isolated expressive language skills but limitations in ability to use these skills in context) or across developmental domains (e.g. strengths in academics but weaknesses in motor areas).

The *IED–II* enables examiners to determine where, within developmental progressions, children's skills lie. For example, if they cannot demonstrate a higher-level skill such as identifying coin values, the *IED–II* enables a view of prerequisites, such as identifying coin names, or even more basic skills, such as pointing to coins when named. This enables educators to decide precisely where to begin instruction in each skill area.

In summary, the *IED-II* is designed to:

1. determine readiness for school;
2. track developmental progress;
3. provide a range of scores needed for documenting eligibility for special education services;
4. enable a comparison of children's skills within and across developmental domains in order to view strengths and weaknesses;
5. determine entry points for instruction;
6. assist with program evaluation.

Features of the *IED-II*

- ☞ Is designed for children from birth to developmental age seven.
- ☞ Can be administered and scored in about twenty to fifty-five minutes, depending on children's ages.
- ☞ Measures children's skills in a broad range of areas including fine and gross motor, receptive and expressive language, academic/cognitive and graphomotor development, social-emotional, self-help skills and adaptive behaviour.
- ☞ Provides rich intradomain information about strengths and weaknesses via comparisons of:
 - Fine- versus gross-motor skills and more specifically: drawing/visual motor skills versus writing skills; nonlocomotor skills such as standing and jumping versus locomotor skills such as crawling, walking and running.
 - Receptive versus expressive language skills including: receptive knowledge of nouns and early listening versus action words and concepts; isolated expressive language skills such as vocabulary and verbal memory versus actual conversational skills.
 - Quantitative/general academic/cognitive versus prereading/reading preacademic/academic skills.
 - Self-help versus prevocational skills.
 - Play skills and group behaviour versus one-on-one social-emotional skills.
- ☞ Continues (despite its norm-referenced results) to use a criterion-referenced approach to assessment in that, for all items, a complete sample of skills is measured (e.g., knowledge of all letters in the alphabet, shapes, colours, and so forth).
- ☞ Produces results that can be easily translated into instructional objectives.
- ☞ Enables teachers to identify a sequence of objectives and skill progressions for current instruction and instructional planning.
- ☞ Ensures applicability with children who may have a wide range of skills and abilities.
- ☞ Identifies current levels of performance including developmental strengths and weaknesses.
- ☞ Encourages comprehensive development of individual educational plans and the inclusion of goals and objectives in broad areas including: prevocational, self-help, functional academics, recreation, and so forth.
- ☞ Facilitates task analysis—breaking skills into prerequisites, and chaining of steps needed for skill mastery.
- ☞ Offers norm-referenced interpretation by enabling children's performance within and across domains to be compared with that of other children across the country.

- ☞ Reduces duplication of effort in diagnostic evaluation by enabling *IED-II* results to be used as indicators of adaptive behaviour and language skills.
- ☞ Is easily scored by assigning a point value to each skill assessed. Total points for skills can be converted to quotients, percentiles, age equivalents and/or instructional ranges, depending on the examiner's or program's need for specific kinds of results.
- ☞ Allows completion by interview/observation for many of the items thus ensuring holistic assessment of children's development.
- ☞ Originally standardised on 1,156 children and restandardised in 2003 on a nationally representative sample 1,171 children.
- ☞ Has a high degree of internal consistency and test-retest and inter-rater reliability.
- ☞ Has substantial validity of various types. Correlates highly with criterion measures of academics and intelligence, and of language, social and motor skills.
- ☞ Is effective for frequent and/or annual updates of progress with specific forms to aid in monitoring.
- ☞ Is useful in program evaluation and research on intervention, curricular effectiveness, alternative settings, and so forth.
- ☞ Combinations of assessments can be used to generate an adaptive behaviour composite for examiners and programs requiring such scores for eligibility, developmental monitoring and program planning.
- ☞ Assesses school readiness by tapping predictors of school success.

Components of the Standardised Portions of the *IED-II*

There are forty-six different assessments within the standardised portion of the *IED-II*. As shown in Table 1-1, the assessments cluster into five domains: motor, language, academic, daily living and social-emotional. At some ages, the five domains can be broken out into subdomains as follows:

1. **Motor** includes two subdomains: *Fine Motor* and *Gross Motor*. Fine Motor includes two composites: *Drawing/Visual Motor* and *Writing* skills. Gross Motor includes two composites: *Nonlocomotor* and *Locomotor* skills.
2. **Language** includes two subdomains: *Receptive Language* and *Expressive Language*. Within Receptive Language are two composites: *Nouns and Early Listening* (understanding of object names, adjectives and prepositions) and *Actions* (understanding of verbs and ability to follow directions). Expressive Language includes two composites: *Isolated Skills* (discrete knowledge of verbs, nouns, descriptors and verbal memory); and *Contextual Skills* (ability to share thoughts and desires through the use of grammar, pragmatics, articulation and verbal fluency).
3. **Academic/Cognitive** includes two subdomains: *General/Quantitative* (e.g., colours, counting, money concepts) and *Prereading/Reading*.
4. **Daily Living** includes two subdomains: *Self-help* and *Prevocational*.
5. **Social-Emotional** includes two subdomains: *Play Skills and Behaviours* and *Engagement and Initiative* skills.
6. **Adaptive Behaviour** which is a summation of performance in motor, language, academic/cognitive, daily living and social-emotional domains.