Overview of the Battelle Developmental Inventory-2

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The Florida Department of Education (FDOE), in collaboration with the Early Steps Program, Children's Medical Services (CMS) Network, Florida Department of Health (DOH), has initiated the use of the Battelle Developmental Inventory 2nd Edition (BDI-2) to collect data on children across both the Early Steps Program Part C, and the prekindergarten Exceptional Student Education (ESE) Section 619 programs. This data will be used to report on the progress of infants, toddlers, and preschool children with disabilities served in the Early Steps Part C programs and/or served in Pre-K ESE programs Section 619 for State Performance Plan (SPP) Indicator 7. There are three points that children may be assessed: at entry into Part C/Early Steps; at exit from Part C/Early Steps which may also be the entrance for the Prekindergarten Program for Children with Disabilities (Part B Section 619); and at exit from the Preschool Special Education Program Prekindergarten Program for Children with Disabilities (Part B Section 619). Some school districts and local Early Steps already use this tool, but as part of Florida’s effort to address the indicator, all appropriate school district and Early Steps personnel will be trained in the use of the BDI-2 by spring of 2009.

Under certain circumstances, the results of the BDI-2 Screening Test may be reported in place of the full BDI-2 assessment to fulfill the requirements of the child outcome measurement system for Indicator 7 of the SPP. If the only suspected disability is a speech disorder (e.g., articulation, voice, or fluency disorders), the BDI-2 Screening Test may be administered in place of the full assessment. The child must score in the typical range of development (> -1.5 SD) in all domains for the screener to be used. A detailed description of the appropriate use of the BDI-2 Screening Test can be found in the July 14, 2008 Joint memorandum from the Early Steps State Office and the Bureau of Exceptional Education and Student Services (BEESS): Use of the BDI-2 Screening Test in Florida’s Child Outcomes Measurement System.

The purpose of this eUpdate is to provide information related to the full BDI-2 assessment. More detailed information can be found in the Examiner’s Manual.

The BDI-2 Instrument
The BDI-2 is a “standardized, individually administered assessment battery of key developmental skills in children from birth through 7 years of age” (Battelle
Development Inventory – Examiner’s Manual, p. 1). It involves observations of the child, parent and/or caregiver interviews, and interactions with the child using toys, games and tasks. During sessions with the child, the examiner(s) observes the child’s ability to follow directions, interact, and perform selected tasks. Areas that cannot be assessed during test sessions may be supplemented with parent information. The child’s performance is scored based on standardized criteria using a simple three point scoring system.

The BDI-2 looks at developmental milestones. It is generally accepted that child development occurs in a particular sequence - the attainment of one skill typically depends on the acquisition and mastery of preceding skills. From an identified list of over 4,000 skills that appear in typically developing children, the designers of the BDI-2 chose 450 test items placed into five domains:

1. Adaptive
2. Personal-Social
3. Communication
4. Motor
5. Cognitive

The skills which comprise the 450 test items were chosen because they were identified though research as ones critical to the development of functional life skills and could be impacted by educational intervention.

The information gained from the administration of the BDI-2, can assist in:
1. Identifying strengths in developmental skills and opportunities for learning for typically developing children and children with disabilities
2. Assessing children considered to be at risk in any developmental area
3. Development of Individual Family Support Plans (IFSP) and Individual Educational Plans (IEP)
4. Monitoring student progress toward long and short term goals and objectives

(Battelle Development Inventory – Examiner’s Manual, p.7-8)

Qualifications for Administering the Instrument
When administering an assessment, the knowledge, skills, and experience of the evaluator are an important part of the validity of the test and interpretation of results. In other words, in order to obtain accurate results, the examiner needs to understand the test well and should have a good understanding of typical and atypical child development. The examiner must also understand and be comfortable with the age level of the child being assessed. “It is essential that examiners have appropriate training and experience working with the children of the age they will assess as well as comfort level that allows for easy interaction with them” (Battelle Development Inventory – Examiner’s Manual, p. 10). If a young child with special needs is being evaluated, the examiner also should
have sufficient knowledge of the disability and ways to provide appropriate accommodations without compromising the results of the assessment.


Preschool, kindergarten and primary school teachers, special educators, and infant intervention providers are the primary user groups for the BDI-2. Related services providers, such as speech-language pathologists, adaptive physical education specialist, psychologist, and diagnosticians are also likely to use the BDI-2 to measure the functional abilities of young children. Educational aides who have considerable experience working with the children being assessed may appropriately use the BDI-2 or parts of it if they have received comprehensive training in its administration and demonstrated proficiency in its use through supervised practice with the instrument.

The BDI-2 and Diverse Learners

Use of the BDI-2 with diverse learners is addressed in detail in the Examiner’s Manual. In addition to having appropriate knowledge and skills related to the use of the BDI-2, examiners are obligated to determine, to the extent possible, characteristics of the child that may influence the administration of the instrument and the interpretation of the results. Of particular importance are the child’s native language and the presence of suspected disabilities. (Battelle Development Inventory – Examiner’s Manual, p. 11)

Any special circumstance used to administer the BDI-2 assessment should be documented and included in the final report.

Cultural and English Language Learners (ELL) Considerations

The Examiner’s Manual recommends that the cultural and linguistic background of a child be considered in order to determine if the scores truly represent the developmental ability of the child. If the child is not familiar with the culture of the United States or with specific regional cultures (Northeast, Southeast, Midwest, etc.), caution should be exercised when interpreting results. The BDI-2 is offered in both English and Spanish versions. The manual offers these cautions when the test is administered to a child whose first language is not English.

Assessing a child whose first language is not English raises a concern when administration requires oral instructions, because the child may not comprehend what he or she is being asked to do. In such circumstances, test results many not accurately reflect the behaviors
that the test intended to measure nor the actual abilities and skills of the child. Parents of caregivers also may be limited in their understanding of English and in their ability to fully describe the child’s abilities and behaviors. (Battelle Development Inventory – Examiner’s Manual, p. 11)

If the examiner does not believe that a score obtained for a child who is an English language learner is valid, then the score for that particular domain should not be submitted for accountability purposes and noted in the final report.

Children with Disabilities:
General accommodation strategies for children with disabilities are discussed in the Examiner’s Manual. However, evaluators must use clinical judgment when deciding which strategies are appropriate for each individual child. Evaluators must know the child’s skills and abilities, as well as ways to optimize the child’s performance. Additionally, evaluators must “determine the construct being measured by a test item” (Battelle Development Inventory – Examiner’s Manual, p.12) to be sure that the accommodation does not compromise the integrity of the assessment construct. Also, one accommodation may not be appropriate for all children with the same disability. When in doubt, it is recommended that evaluators consult with a specialist in the child’s area of disability or with others who are knowledgeable about the use of accommodations during formal assessments.

Reflections:
1. What is the process in your district or program to take into account cultural factors when interpreting results on the BDI-2?
2. Do you know the administration adaptations of the BDI-2 for children who have disabilities?

Great teachers empathize with kids, respect them, and believe that each one has something special that can be built upon. – Ann Lieberman

References and Resources

Early Childhood Outcomes (ECO) Center
A collaborative project funded by OSEP providing research and technical assistance to promote the development and implementation of child and family outcome measures for infants, toddlers, and preschoolers with disabilities for use in local, state, and national accountability systems. [http://www.fpg.unc.edu/~eco/index.cfm](http://www.fpg.unc.edu/~eco/index.cfm)


SERVE
The SERVE Center is one of ten Laboratories providing research-based information and services nationwide. These Laboratories form a nationwide education knowledge network, building a bank of information and resources shared and disseminated nationally and regionally to improve student achievement. Resources and information are available on a variety of topics for Pre-K programs, including transition, early literacy, and evaluation and assessment. [http://www.serve.org/](http://www.serve.org/)

Technical Assistance & Training System (TATS)
Statewide project providing technical assistance and training to programs in Florida serving prekindergarten children with disabilities. Website provides information and resources on curriculum and instruction, evaluation and assessment, family involvement, inclusion, program effectiveness/quality, and transition, as well as, linking early childhood partners. www.tats.ucf.edu

TATS eUpdates are a service of the Technical Assistance & Training System Communities of Practice. The TATS eUpdates are intended to provide current information related to best practices or trends in the education of young children with special needs in the areas of Transition, Program Effectiveness, Inclusion, Curriculum & Instruction, Evaluation & Assessment, and Family Involvement. For more information about the TATS Communities of Practices and the TATS eUpdates, please log on to www.tats.ucf.edu.