# A Comparison of Evaluation Tools for the Wisconsin Birth to 3 Program

This document was developed by the CESA 5 RESource Professional Development team to inform decision-making with regard to to use of a high quality evaluation tool from the Wisconsin Birth to 3 Program's <u>Approved Tool List</u>. Based on feedback from the Birth to 3 Program workforce and research on current practice in early intervention, RESource identified support for evaluation tools as a first step toward the use of similar practices impacting consistent, equitable access to services for children and families in the Birth to 3 Program across Wisconsin.

Through a review of the Approved Tool List, evaluation tools were identified from the Approved Tool List on the following factors:

- Primary Purpose: Evaluation
- Domain(s): Comprehensive
- Rating: Green

Two approved for use, comprehensive, evaluation tools were identified.

Developmental Profile 4 (DP-4) Developmental Assessment of Young Children 2nd ed. (DAYC-2)

The following resource was created to help teams explore the selected evaluation tools in order to make an informed decision. It includes a comparison chart of key factors of each tool, adapted from the tool manuals.

The Approved Tool List is a result of activities completed in 2022-23 by the CESA 5 Research to Practice Project (R2PP) during phase one of a multi-phase, multi-year project to reimagine the professional development framework for the Wisconsin Birth to 3 Program using funds obtained through the federal American Rescue Plan Act (ARPA). The Approved Tool List is a result of the collective efforts of the R2PP team, the CESA 5 RESource Project team, the Department of Health Services and was informed by input from the Birth to 3 Program workforce.



Comparison Chart: DP-4 and DAYC-2		
DEVELOPMENTAL PROFILE 4 (DP-4)	DEVELOPMENTAL ASSESSMENT OF YOUNG CHILDREN 2ND ED. (DAYC-2)	
Purpose		
<ul> <li>Provide a detailed account of a child's developmental strengths and weaknesses while simultaneously identifying developmental delay across a variety of settings (Alpern, 2020, p. 1)</li> <li>Track progress over time using growth scores (Alpern, 2020, p. 3)</li> </ul>	<ul> <li>Help identify children who are functioning significantly below their peers developmentally</li> <li>To monitor children's progress in special intervention programs</li> <li>Conduct research that involves the abilities of young children (Voress &amp; Maddox, 2013, p. 2-3)</li> </ul>	
Publisher's Description		
<ul> <li>"[a norm-referenced measure] designed to assess the development and functioning of individuals from birth through age 21 years, 11 months" (Alpern, 2020, p. 1).</li> </ul>	<ul> <li>"an individually administered, norm- referenced measure of early childhood development for children from birth through age 5 years, 11 months" (Voress &amp; Maddox, 2013, p. 1).</li> </ul>	
Domains		
<ul> <li>Cognitive</li> <li>Communication</li> <li>Social-Emotional</li> <li>Physical</li> <li>Adaptive Behavior (Alpern, 2020, p. 2-3)</li> </ul>	<ul> <li>Cognitive</li> <li>Communication</li> <li>Social-Emotional</li> <li>Physical</li> <li>Adaptive Behavior (Voress &amp; Maddox, 2013, p. 1)</li> </ul>	
Testing Protocol		
<ul> <li>Each domain scale is two pages within one testing booklet</li> <li>Spanish version available</li> </ul>	• One booklet for each developmental domain	

The information provided is adapted from the Developmental Profile 4 (DP-4) Manual and the Developmental Assessment of Young Children, Second Edition (DAYC-2) Examiner's Manual.

## **Tool Components**

- Developmental Profile-4 Manual This provides information about how to give, score, and interpret the test, as well as technical information i.e., norms, reliability, and validity (Alpern, 2020).
- "Parent/Caregiver Interview This is the recommended administration of the DP-4. The interview takes approximately 20 to 40 minutes and can be conducted with a parent or caregiver who is familiar with the developmental functioning of the child. The age range for this form is birth to 21 years, 11 months. A Spanish version of this form is also available" (Alpern, 2020, p. 2).
- "Parent/Caregiver Checklist When an interview is not possible, the DP-4 offers this checklist version, which consists of the same item content as the Parent/ Caregiver Interview form and can be given to a parent or caregiver to complete. The age range for this form is birth to 21 years, 11 months. A Spanish version of this form is also available" (Alpern, 2020, p. 2).
- "Teacher Checklist This new form is used to gather information about the child in their education setting. The item content of the Teacher Checklist is almost identical to that of the Parent/ Caregiver Interview and Parent/ Caregiver Checklist; however some items have been altered for more relevance to the school setting, and 10 others have been removed. The age range for this form is 2 years, 0 months to 21 years, 11 months. A Spanish version of this form is also available" (Alpern, 2020, p. 2).
- "Clinician Rating This new form is identical in content to the Parent/ Caregiver Interview and differs only in its method of administration and in the scores it yields (it does not yield standard scores; see Chapter 2 for more details). It is provided as a means for the clinician to answer the same items, based on their own knowledge and experience with the child. The age range for this form is birth to 21 years, 11 months" (Alpern, 2020, p. 2).
- Online scoring and reports available (Alpern, 2020).

- "Examiner's Manual This provides information about how to give, score, and interpret the test, as well as technical information i.e., norms, reliability, and validity)" (Voress & Maddox, 2013, p. 2).
- "Domain Scoring Forms Five different domain scoring forms; one for each of the domains measured by the DAYC-2 are provided. These forms contain the items and provide space for the examiner to record the score for each item. There is also a section for the examiner to record the raw score, age equivalent, standard score, percentile rank and descriptive term for the domain" (Voress & Maddox, 2013, p. 2).
- "Examiner Summary Sheet When two or more domains are given, the examiner uses this sheet to summarize information from the domains. If all five domains are given, the examiner may compute the General Developmental Index (GDI), Space is provided to record the standard score and percentile rank for the GDI" (Voress & Maddox, 2013, p. 2).
- "Early Childhood Developmental Chart The chart is a supplemental component and is not used in the assessment. It provides a graphic summary of developmental milestones across the five domains measured. The chart is useful for parents who would like more information about child development" (Voress & Maddox, 2013, p. 2).
- DAYC-2 Online Scoring and Report System available (Voress & Maddox, 2023).

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## DAYC-2

#### **Examiner Qualifications/Training**

- "Professionals who are familiar with and competent in psychological or educational testing" (Alpern, 2020, p. 5).
- "Interpretation and application of the results require a professional with training and experience in child development, psychology, and/or education" (Alpern, 2020, p. 5).
- "Each potential user must also ensure that they are working within the scope of their practice in a competent, legal, and ethical manner. It is the responsibility of each user to determine their own competence of using the DP-4 by evaluating its principles of use in light of their training and experience, the intended scope of use, and the guidelines set forth by relevant professional organizations and licensing boards" (Alpern, 2020, p. 5).
- Training as an "early childhood specialist, school psychologist, diagnostician, [SLPs, PTs, OTs], or other professionals who have some formal training in assessment" (Voress & Maddox, 2013, p. 2).
- "Supervised practice in using early childhood developmental tests is desirable" (Voress & Maddox, 2013, p. 2).
- "[E]xaminers are encouraged to consult local ... policies, state regulations, and position statements of professional organizations regarding test administration, interpretations and issue of confidentiality" (Voress & Maddox, 2013, p. 2).

Entry Points		
<ul> <li>The entry points, or which item you will begin on, for each developmental protocol, are based on the child's chronological age (Alpern, 2020, p. 8).</li> <li>"Each DP-4 scale has four age-based start items, clearly labeled on the Parent/ Caregiver Interview form" (Alpern, 2020, p. 8).</li> <li>"The DP-4 does not account for prematurity, and is intended to only be interpreted based on chronological age. Clinicians may wish to use gestational or fetal age to compare scores to those obtained based on chronological age, but only chronological age scores should be reported" (K. Bax, personal communication, May 25, 2023).</li> </ul>	<ul> <li>The entry points, or which item you will begin on, for each developmental scoring form, are based on the child's chronological age (Voress &amp; Maddox, 2013, p. 7).</li> <li>"When testing a child who was premature, use the child's chronological age for purposes of using the normative tables. The examiner may wish to use the child's adjusted age for comparison to provide helpful clinical information" (Voress &amp; Maddox, 2013, p. 15).</li> <li>Do not round up the child's age. (Voress &amp; Maddox, 2013, p. 15).</li> <li>Entry points are outlined on each domain's scoring form and within Table 2.1 on page 7 (Voress &amp; Maddox, 2013, p. 7).</li> </ul>	

DP-4	DAYC-2	
Methods of Administration		
<ul> <li>"Allows for evaluation of a child's development across both home and school settings, and from the perspectives of different respondents" (Alpern, 2020, p. 1).</li> <li>"Administered as a direct interview of a parent or caregiver, as a checklist completed by a parent/caregiver or teacher, or as a rating form completed by the clinician" (Alpern, 2020, p. 1).</li> <li>"Best conducted in a quiet, well-lit room with comfortable chairs and enough privacy for a clinical interview. Begin by establishing rapport and communicating the purpose of the DP-4 assessment. Ensure that the respondent is willing and able to participate in the interview process. It is suggested that you replace the words "the child" in the text of each item with the child's name as you conduct the interview" (Alpern, 2020, p. 8).</li> <li>Can be administered virtually (Alpern, 2020, p. 8).</li> </ul>	<ul> <li>Observation: When using the method of observation, natural settings provide the most accurate results (Voress &amp; Maddox, 2013, p. 5).</li> <li>Interview: Interviewees should be familiar with the child's functioning (parent, caregiver, teacher, etc.) (Voress &amp; Maddox, 2013, p. 5-6).</li> <li>"Examiner should be familiar with interviewing techniques to establish rapport and an accepting atmosphere" (Voress &amp; Maddox, 2013, p. 6).</li> <li>Examiner should explain the purpose, describe the DAYC-2 briefly, and assure that results will be shared. Be prepared to answer questions (Voress &amp; Maddox, 2013, p. 6).</li> <li>Begin with open-ended questions and then follow up with specific questions (Voress &amp; Maddox, 2013, p. 6).</li> <li>Direct Assessment: "Establish rapport with the child", consider your environment, "be sensitive to the child's level of fatigue and stop if showing signs of tiring or losing interest" and affirm and encourage but avoid prompting (Voress &amp; Maddox, 2013, p. 6).</li> <li>Can be administered virtually (Voress &amp; Maddox, 2023).</li> </ul>	
Testing/Administration Time		
<ul> <li>The interview session usually takes about 20 to 40 minutes (Alpern, 2020, p. 8).</li> </ul>	<ul> <li>"This test has no time limit but typically each domain can be completed in 10 to 20 minutes, depending on the age of the child and how well the examiner knows the child" (Voress &amp; Maddox, 2013, p. 6).</li> <li>"Testing may be done over multiple days but, if necessary, but as close together as possible" (Voress &amp; Maddox, 2013, p. 7).</li> </ul>	

DP-4	DAYC-2	
Normative Sample		
<ul> <li>"[S]tandardized on a nationally representative sample of 2,259 children and young adults aged from birth to 21 years, 11 months" (Alpern, 2020, p. 4).</li> <li>"The sample includes typically developing and selected clinical cases, and was recruited so that its demographic composition would match the U.S. Census in terms of gender, ethnicity, geographic region, and socioeconomic status (SES, as indexed by parents' educational level)" (Alpern, 2020, p. 4).</li> <li>"An updated, nationally representative normative sample (including Spanish-language speakers) that closely approximates the gender, ethnic, geographic, and socioeconomic composition of the U.S. population. This sample also includes children diagnosed with clinical conditions that are relevant to the intended use of the DP-4 (e.g., autism, developmental delay)" (Alpern, 2020, p. 3).</li> </ul>	<ul> <li>"[N]ormed on a sample of 1,832 children, [aged from birth to 71 months], residing in 20 states" (Voress &amp; Maddox, 2013, p. 25).</li> <li>"The normative sample is representative of the nation as a whole regarding geographic region, gender, race, Hispanic status, family income, and educational attainment of parents" (Voress &amp; Maddox, 2013, p. 26).</li> </ul>	

### **Important Facts**

- Provides intervention tips (Alpern, 2020, p. 397)
- "Age equivalent scores were the primary scores used in the original Developmental Profile and the DP-II. The DP-3 introduced standard scores as the primary scores, although age equivalents were still available. The frequency of the use of age equivalent scores has decreased over time, but they are still provided to satisfy the reporting requirements of certain schools and other institutions. Age-equivalent scores have many psychometric limitations and should be interpreted with caution" (Alpern, 2020, p. 26).
- "As with any instrument, the DP-4 should not be used in isolation to diagnose or plan treatment for a child. Instead, it should be used in concert with other data, such as information derived from concurrent or former assessments, other detailed interviews and history-taking, and observations" (Alpern, 2020, p. 5).

- The communication and motor domains include subdomains (Voress & Maddox, 2013, p.1).
- To convert raw scores for sections with subdomains you will use appendix D of the Examiner's Manual (Voress & Maddox, 2013, p. 377).
- "Age equivalencies are expressed in months. These are provided by the developers reluctantly and are seen to be inadequate and misleading" (Voress & Maddox, 2013, p. 20).

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## DAYC-2

- For the Parent / Caregiver Interview form, Yes responses are scored 1 and No responses are scored 0 (Alpern, 2020, p. 13)
- "Most of the DP-4 items ask the parent/caregiver whether the child does perform a task. To obtain a score of Yes for such items, the parent/caregiver must agree that the child is not only able to perform the task, but also actually performs it *sometimes*. It is not necessary that the child always performs the task. If the child actually performs the test at least some of the time, this is sufficient for a Yes response" (Alpern, 2020, p. 9).
- "[S]ome items ask whether the child can perform a task. For these items, a Yes means that the child has shown on at least one occasion that they are able to perform the task" (Alpern, 2020, p. 9).
- A child is scored Yes if they have performed a skill previously, unless they have regressed on the skill (Alpern, 2020, p. 9).
- Has Start Rule of five consecutive Yes responses and a Stop Rule of five consecutive No responses (Alpern, 2020, p. 9)
- The DP-4 yields standard scores, percentile rank, and age equivalents (Alpern, 2020, p. 24-26).

- Items are scored as either passed or not passed. Passes get a point; otherwise a zero (Voress & Maddox, 2013, p. 7)
- In situations where the child has not yet had access (like with scissors, for example), still a zero is given if the child cannot complete the task (Voress & Maddox, 2013, p. 7).
- The basal is the set of three 1s in a row that is closest to the ceiling (Voress & Maddox, 2013, p. 7).
- The ceiling is established with three consecutive 0s that are closest to the basal (Voress & Maddox, 2013, p. 7).
- When no basal is established, you count each item that is scored as a 1 from the beginning to the ceiling (Voress & Maddox, 2013, p. 7).
- Table 2.2 on page 9 of the Examiner's Manual provides examples (Voress & Maddox, 2013, p. 9).
- "The DAYC-2 yields four types of normative scores: age equivalents, percentile ranks, standard scores, and the General Developmental Index" (Voress & Maddox, 2013, p. 20).

#### References

Alpern, G.D. (2020). *Developmental Profile 4 (DP-4)* [Manual]. Torrence, CA: Western Psychological Services.

Voress, J. K., & Maddox, T. (2023). Dayc2 online scoring and report system 1Year Base Subscription includes 5 licenses. PROEDINC.com. https://www.proedinc.com/Products/13849/dayc2-online-scoring-and-report-system-1year-base-subscription-includes-5-licenses.aspx

Voress, J.K. & Maddox, T. (2013). Developmental Assessment of Young Children, Second Edition (DAYC-2) [Examiner's Manual]. Austin, TX: PRO-ED, Inc.

# **Comparison Chart Reflections**

When considering the selection and implementation of a comprehensive evaluation tool, it is helpful to take time as a team for discussion and planning. The following questions may assist with team decision-making, meaningful discussions, and intentional planning for next steps.

### Things to Consider

- Mirroring the exploration process the R2PP team used, how can the components of the <u>NIRN Hexagon Tool</u> support your program's decision-making (particularly, *fit, usability,* and *capacity*)?
- How well is your team equipped to administer and interpret either the DAYC-2 or DP-4?
- All components of the DAYC-2 and DP-4 can be administered by any qualified examiner; how might your team do this collaboratively?
- How are you currently using the methods of administration (observation, interview, direct assessment) that the DAYC-2 and DP-4 utilize?
- As you consider items on the various protocols, which items cause you to pause or warrant clarification? Which ones would you like to review with your team for purposes of consistency?
- What else do you need to know about the DP-4 or DAYC-2 in order to move forward with a decision? How will you obtain needed answers or information?

"Intention is one of the most powerful forces there is. What you mean when you do a thing will always determine the outcome." - Brenna Yovanoff

