

## ASA Publication Summary Form

<b>PRODUCT DESCRIPTION</b>	
Product name	<i>Auditory Skills Assessment</i>
Product acronym	ASA
Authors	Donna Geffner, PhD, CCC-SLP/A Ronald Goldman, PhD, CCC-SLP
Copyright date	2010
Brief description of product	<p>The <i>Auditory Skills Assessment</i> (ASA) is an individually administered, criterion-referenced screening tool designed to identify children at risk for auditory skill deficits that may inhibit their language, learning, and academic development.</p> <p>The ASA contains 24 training items followed by 56 test items grouped into six sections (Speech Discrimination in Noise, Mimicry, Blending, Rhyming, Tonal Discrimination, and Tonal Patterning). Several unscored practice items are presented before testing begins on each section to ensure that the child understands the task. The auditory stimuli are presented via a stimulus CD. A stimulus book with full-color art is used on some of the sections where the child points to the picture that illustrates the stimulus word or sound heard; other sections require the child to make a verbal response.</p> <p>Specifically, the ASA assesses the ability to discriminate words in noise, repeat nonsense words accurately, perform early phonological awareness tasks of blending syllables and phonemes and recognizing rhymes, and discriminate between and perceive the sequence of nonverbal (musical) sounds. The ASA yields a single, age-based cut score.</p>
Primary use/ purpose	<p>The ASA is designed to be a quick, reliable indicator of a young child's auditory skills and includes the following uses:</p> <ul style="list-style-type: none"> <li>▪ <b>Early identification and intervention.</b> A child identified on the ASA as at risk for auditory skill deficits may be a good candidate for an in-depth evaluation and/or possible early intervention.</li> <li>▪ <b>Universal screening.</b> The ASA can be used to screen children ages 3 years 6 months through 6 years 11 months as a preliminary assessment of their auditory skills.</li> <li>▪ <b>Progress monitoring.</b> Readministration of the ASA can be used to check a child's progress with auditory skills and to determine whether an intervention is working, is still required, or whether an in-depth assessment of the child's skills is needed.</li> </ul>
Age range covered	Ages 3:6–6:11

Administration time	The ASA takes 5 to 15 minutes to administer on average, depending on the child's age and abilities. Children ages 3 years 6 months through 4 years 11 months take two sections of the ASA, while children ages 5 years 0 months through 6 years 11 months take all six sections of the ASA.
Individual vs. group	Individual
User qualifications	Level B, Q1, Q2
<b>CONTENT DESCRIPTION</b>	
Section names	Speech Discrimination in Noise, Mimicry, Blending, Rhyming, Tonal Discrimination, Tonal Patterning
Domain names	<p>The six sections of the ASA are organized into three domains of related auditory skills:</p> <ul style="list-style-type: none"> <li>▪ Speech Discrimination</li> <li>▪ Phonological Awareness</li> <li>▪ Nonspeech Processing</li> </ul> <p>The Speech Discrimination in Noise and Mimicry sections form the Speech Discrimination domain; Blending and Rhyming form the Phonological Awareness domain; and Tonal Discrimination and Tonal Patterning form the Nonspeech Processing domain.</p>
Materials included in the kit	The ASA complete kit includes a manual, a stimulus CD, a stimulus book, and 25 record forms.
<b>ITEM INFORMATION</b>	
	<p>The ASA has three kinds of items:</p> <ul style="list-style-type: none"> <li>▪ <b>Training items.</b> All children begin the ASA with 24 training items to ensure that the child knows the picture–word combinations used as responses in the Speech Discrimination in Noise and Blending sections. Training items are not scored.</li> <li>▪ <b>Practice items.</b> Each section begins with practice items to ensure the child understands the task. All practice items have two trials to allow for teaching the task following an incorrect response. Practice items are not scored.</li> <li>▪ <b>Test items.</b> Test items are presented via the stimulus CD and include both verbal and nonverbal (musical) auditory stimuli. All test items are scored dichotomously (correct/incorrect).</li> </ul>
<b>SCORING INFORMATION</b>	
Scoring options	Hand scoring
Derived scores available	Overall cut score (pass/fail) and percentile rank
Norm groups available	Age

Other features	A descriptor (low, average, high) of the child's performance on each domain is provided as supplementary qualitative information about the child's relative performance in different auditory skill areas to other children his or her age.	
<b>TECHNICAL INFORMATION</b>		
<b>Sample Information</b>		
Standardization description	The purpose of standardization was to define cut scores that would best discriminate clinical cases from nonclinical cases and to study the final screener's reliability, validity, and clinical utility.	
Date	December 2008 through May 2009	
Size	There were 475 children in the ASA norm sample ages 3 years 6 months through 6 years 11 months. This sample was drawn from a pool of 641 cases from 123 locations to best match the U.S. population demographics.	
Sex	<u>Ages 3:6–4:11</u> Female: 112 Male: 113	<u>Ages 5:0–6:11</u> Female: 126 Male: 124
Race/Ethnicity	Percentage of norm sample: <ul style="list-style-type: none"> <li>▪ African American: 13.7</li> <li>▪ Asian: 3.8</li> <li>▪ Hispanic: 21.1</li> <li>▪ White: 57.5</li> <li>▪ Other: 4.0*</li> </ul> <i>*Includes American Indians, Alaska natives, Pacific Islanders, and all other groups not classified as African American, Asian, Hispanic, or White.</i>	
Geographic region	Percentage of norm sample: <ul style="list-style-type: none"> <li>▪ Northeast: 18.9</li> <li>▪ Midwest: 20.8</li> <li>▪ South: 37.3</li> <li>▪ West: 22.9</li> </ul>	
SES/Parent education	Percentage of norm sample: <ul style="list-style-type: none"> <li>▪ Grade 11 or Less: 14.5</li> <li>▪ High School Graduate or GED: 26.3</li> <li>▪ 1–3 Years of College: 29.9</li> <li>▪ 4 or More Years of College: 29.3</li> </ul>	
Community size	Variable	
<b>Reliability</b>		
Internal-consistency reliability	<u>Ages 3:6–4:11</u> Split-Half: $M = .60$ $SEM = 1.7$	<u>Ages 5:0–6:11</u> Split-Half: $M = .87$ $SEM = 2.4$
Test-retest reliability	Ages 3:6–4:11 = .64 Ages 5:0–6:11 = .83	

Interscorer reliability	<p><u>By Age and Section:</u>  3:6–4:11 (Mimicry) = .95  5:0–6:11 (Mimicry) = .90  5:0–6:11 (Blending) = .99</p>
<b>Validity</b>	
Correlations	<p>ASA Phonological Awareness Domain with the <i>Comprehensive Test of Phonological Processing</i> (CTOPP)  Ages 5:0–6:11 (<math>N = 55</math>)</p> <ul style="list-style-type: none"> <li>▪ Phonological Awareness Composite: <math>r = .65</math></li> </ul> <p>ASA Phonological Awareness Domain with the <i>Test of Auditory Processing Skills</i>, Third Edition (TAPS–3)  Ages 5:0–6:11 (<math>N = 32</math>)</p> <ul style="list-style-type: none"> <li>▪ Phonologic Index: <math>r = .76</math></li> </ul> <p>ASA Speech Discrimination Domain with the <i>SCAN–3:C Tests for Auditory Processing Disorders for Children</i>  Ages 5:0–6:11 (<math>N = 58</math>)</p> <ul style="list-style-type: none"> <li>▪ Auditory Figure–Ground +8 dB/SN: <math>r = .21</math></li> </ul> <p>ASA Total Score with the <i>Test of Auditory Processing Skills</i>, Third Edition (TAPS–3)  Ages 5:0–6:11 (<math>N = 32</math>)</p> <ul style="list-style-type: none"> <li>▪ Auditory-Figure Ground Pass/Fail Agreement: 72%</li> </ul>
Construct validity	<p>Raw score means for children should increase with chronological age to demonstrate age differentiation because of maturational growth of the auditory system. Results from the norm sample show steady increases in means on domain and total raw scores to support the construct validity of the ASA based on the age differentiation criterion.</p>
Clinical sample	<p>The overall sensitivity and specificity of the ASA cut scores are .77 and .68, respectively. That is, 77% of the children in the clinical sample scored at or below the cut score, and 68% of a matched nonclinical sample scored above the cut score.</p> <p>Score difference of domain and total raw scores between children at risk for auditory skill deficits and typically developing children (controlling for sex, race/ethnicity, and mother’s education level):</p> <p><u>Domain</u>  Speech Discrimination (<math>N = 56</math>): –3.1  Phonological Awareness (<math>N = 32</math>): –2.7  Nonspeech Processing (<math>N = 32</math>): –3.0</p> <p><u>Total Score</u>  Ages 4:0–4:11 (<math>N = 24</math>): –4.0  Ages 5:0–6:11 (<math>N = 32</math>): –8.2</p>

**OTHER INFORMATION**

<p>Developmental history</p>	<p>The goal of the ASA was to develop an instrument that would quickly assess a young child’s auditory skills before or as they begin formalized learning. The development of the ASA was based on a four-component model of auditory skills developed by Dr. Donna Geffner. A large pool of speech and nonspeech test items was generated to assess the components in the model.</p> <p>Two national tryouts were conducted in 2007 to scrutinize items with respect to their difficulty, validity, and possible bias, and to evaluate the reliability, validity, and score distributions of sections at different ages. Additionally, information about the accuracy and appropriateness of the materials, including the artwork and administration and scoring directions, was obtained during the tryout phase.</p> <p>In fall 2007, a clinical study was conducted to determine the accuracy of the different sections in distinguishing between children at risk for auditory skill deficits and children whose skills are within developmentally appropriate ranges. The study consisted of 45 children ages 3 years 6 months through 6 years 11 months who were judged by speech-language pathologists as at risk for auditory skill deficits. Results indicated that the ASA had good clinical discrimination power, with children in the nonclinical sample scoring on average about .8 standard deviations above the average scores of children in the clinical sample.</p> <p>Analysis was conducted to determine the starting ages for the sections. The fact that over 80 percent of children at that age could perform the task at a level above that of chance indicated that the task presented in the section was age-appropriate. Results indicated that Speech Discrimination in Noise and Mimicry could be administered to children as young as 3 years 6 months; Rhyming and Blending could be administered at 5 years 0 months; and Tonal Discrimination and Tonal Patterning could be administered between 5 years 0 months and 5 years 6 months.</p>
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Special features	<p>The ASA includes the following features:</p> <ul style="list-style-type: none"> <li>▪ Criterion-referenced data from a nationwide sample of 475 children ages 3:6–6:11</li> <li>▪ A variety of tasks that evaluate both linguistic and nonlinguistic auditory skills</li> <li>▪ A simple overall cut score</li> <li>▪ An indicator of performance (high, average, low) in major domains to pinpoint further assessment or intervention needs</li> <li>▪ Individual, untimed administration and scoring procedures that are quick, easy, and objective</li> <li>▪ Administration without headphones or specialized equipment</li> <li>▪ No required reading or written responses</li> <li>▪ Large, full-color illustrations tested to appeal to young children</li> <li>▪ Teaching of failed practice items</li> <li>▪ Researched validity and reliability</li> <li>▪ Qualitative reviews and empirical analyses that ensure fairness across sex, race/ethnicity, socioeconomic status, and geographic region</li> </ul>
Sensitivity to other cultures	Bias and content reviews of the tryout materials were conducted in late 2007 and early 2008 to evaluate each item for fairness and appropriateness with respect to age, sex, race/ethnicity, culture, and geographic region.
Training options available	Pearson offers a 15-minute web-based ASA presentation at <a href="http://Psychcorp.com/TrainingConsulation">Psychcorp.com/TrainingConsulation</a> (choose the Brainshark Presentation link). Other training options available upon request.
Demonstration	Selected practice items of the ASA are available for demonstration on the ASA product page at <a href="http://www.PsychCorp.com">www.PsychCorp.com</a> .



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