## Goldman-Fristoe Test of Articulation – Second Edition

### Publication Summary Form

<table>
<thead>
<tr>
<th>Instrument name/abbreviation</th>
<th>Goldman-Fristoe Test of Articulation – Second Edition (GFTA-2)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Author</strong></th>
<th>Dr. Ronald Goldman and Dr. Macalyne Fristoe</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Publisher/address</strong></td>
<td>American Guidance Service, Inc., Circle Pines, MN 55014-1796</td>
</tr>
<tr>
<td><strong>Copyright date</strong></td>
<td>2000</td>
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</tbody>
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### Product Description

#### Brief description
GFTA-2 is a systematic means of assessing an individual's articulation of the consonant sounds of Standard American English. It provides a wide range of information by sampling both spontaneous and imitative sound production, including single words and conversational speech.

#### Primary use/purpose
The primary purpose of this test is to provide speech-language pathologists with a method of assessing an individual's articulation of consonant sounds. Inherent in the GFTA-2 is the diagnostic potential for comparing articulation at different levels of complexity. The GFTA-2 can provide a record of growth in articulation skills across a broad time span.

<table>
<thead>
<tr>
<th><strong>Age range covered</strong></th>
<th>2 years to 21 years</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Administration time</strong></td>
<td>5 to 15 minutes (depending on age)</td>
</tr>
<tr>
<td><strong>Individual vs. group</strong></td>
<td>Individually administered only</td>
</tr>
<tr>
<td><strong>User qualifications</strong></td>
<td>CL2</td>
</tr>
</tbody>
</table>

### Content

#### Domains
Consonant phonemes in the English language

#### Test names
- Sounds-in-Words (normed test)
- Sounds-in-Sentences
- Stimulability

#### Composite names
N/A

#### Forms
GFTA-2 Response Form

#### Materials included in the kit
- Easel
- Manual
- Response Forms (pkg. of 25)
- Canvas carry bag

### Item Information

#### Item types
- Sounds-in-Words--Spontaneous single-word elicitation in response to pictures
- Sounds-in-Sentences--Content-controlled, conversational retelling of a story
- Stimulability--Imitative speech sounds

#### Response format
Both single word and conversational speech production

#### Item scoring
Only on Sounds-in-Words
### Scoring Information

**Scoring options**
- Hand scoring and scoring ASSIST
- Two levels of scoring dependent on the qualifications of the examiner:
  - Level 1: Each sound production is judged only for presence of error. This level of evaluation can be completed by a speech-language pathology assistant.
  - Level 2: Each sound production is judged for presence and type of error. This type of discriminative evaluation should be done only by a trained speech-language pathologist.

**Derived scores available**
- Age-based standard scores ($M = 100$, $SD = 15$), percentiles, test-age equivalents

**Norm groups available**
- Age-based and gender-based

**Interpretive features**
- Yes

**Computerized scoring**
- Yes

### Technical Information

#### Standardisation

**Description**
- Over 3,500 examinees aged 2 to 21 years were tested at over 300 sites nationwide. A representative sample of 2,350 subjects was used for developing the normative scores.

- Because of the rapid changes in articulation development between the ages of 2-0 and 8-11, 1-year age intervals were specified for these early years. For the middle ages, where little change in articulation ability occurs, 2-year intervals were used. For ages 15 years to 21 years, which usually reflect mastery of articulation ability, one multiyear age interval was selected for the testing plan.

**Date**
- 1999

**Size**
- 2,350 (1,175 each of males and females)
- Based on U.S. census data in the year 1998 (from machine-readable data file).

**Sample**

**Sample controlled for:**

<table>
<thead>
<tr>
<th>Age/Gender</th>
<th>Females</th>
<th>Males</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>11 age groups totaling 1,175</td>
<td>11 age groups totaling 1,175</td>
</tr>
<tr>
<td>Race</td>
<td>African American: 16.4% (U.S. 15.7%)</td>
<td>African American: 14.6% (U.S. 15.7%)</td>
</tr>
<tr>
<td></td>
<td>Hispanic: 15.7% (U.S. 15.7%)</td>
<td>Hispanic: 15.8% (U.S. 15.7%)</td>
</tr>
<tr>
<td></td>
<td>White: 64.1% (U.S. 63.4%)</td>
<td>White: 65.4% (U.S. 63.4%)</td>
</tr>
<tr>
<td></td>
<td>Other: 3.8% (U.S. 5.1%)</td>
<td>Other: 4.2% (U.S. 5.1%)</td>
</tr>
<tr>
<td>Geographic region</td>
<td>Northeast: 18.6% (U.S. 18.2%)</td>
<td>Northeast: 18.3% (U.S. 18.2%)</td>
</tr>
<tr>
<td></td>
<td>North Central: 23.7% (U.S. 23.4%)</td>
<td>North Central: 23.9% (U.S. 23.4%)</td>
</tr>
<tr>
<td></td>
<td>South: 35.2% (U.S. 34.4%)</td>
<td>South: 34.4% (U.S. 34.4%)</td>
</tr>
<tr>
<td></td>
<td>West: 22.5% (U.S. 23.7%)</td>
<td>West: 23.4% (U.S. 23.7%)</td>
</tr>
</tbody>
</table>
### SES/Parent education

Mother's education level was used to indicate socioeconomic status.

- Grade 11 or less: 16.6% (U.S. 16.2%)
- High School Graduate: 34.0% (U.S. 34.0%)
- 1 to 3 Years of College or Technical School: 28.3% (U.S. 28.3%)
- 4 or More Years of College: 21.0% (U.S. 21.5%)

Mother's education level was used to indicate socioeconomic status.

- Grade 11 or less: 16.2% (U.S. 16.2%)
- High School Graduate: 34.4% (U.S. 34.0%)
- 1 to 3 Years of College or Technical School: 28.4% (U.S. 28.3%)
- 4 or More Years of College: 21.0% (U.S. 21.5%)

### Community size

N/A

### Special populations included

Yes, in approximately the same proportions in which they occur in the general population. Based on current IDEA definitions and regulations, preschool children were tracked noncategorically, while school-age children were tracked based on the four largest special education categories: specific learning disability, speech and/or language impairment, mental retardation, serious emotional disturbance.

### Reliability

#### Internal reliability

Median reliability for females is .96. Median reliability for males is .94.

#### Test-retest

Median test-retest reliability is .98 for initial, medial, and final sounds.

#### Interrater

Median percentages of agreement for initial, medial, and final sounds are 93, 90, and 90, respectively.

### Validity

#### Intercorrelations

N/A

#### Content

Sounds-in-Words was designed to sample 23 of the 25 consonant sounds recognised in Standard American English.

#### Construct

Sounds-in-Words claims to measure the ability to correctly articulate consonant and consonant cluster sounds. Evidence that Sounds-in-Words is measuring articulation is provided by the developmental progression of total raw scores and item scores. See Table 6.5 in the manual.

#### Concurrent

N/A

#### Predictive

N/A

#### Factor analysis

N/A

#### Clinical sample

No validity studies with the clinical sample

#### Canadian study

A special study was completed with 281 Canadian children to validate the use of Sounds-in-Words with English-speaking children in Canada.

### Other

#### Developmental history

- Pilot study July – October 1998
- National standardisation May – November 1999
  (See Chapter 5 in manual for complete development information.)
| **Special features**                                      | Target words for questionable images and for culturally specific content dropped  
|                                                           | New artwork  
|                                                           | Age range expanded from 2 years to 21 years 11 months  
|                                                           | Age-based standard scores available for males and females  
|                                                           | User-friendly color coding of original maintained  
|                                                           | Multiple testing of sounds per plate whenever possible  
| **Federal mandates met**                                 | GFTA-2’s age-based norms can be used to meet the requirements of PL 94-142 and PL 99-457 (now incorporated into IDEA, reauthorized as PL 105-17).  
| **Adaptation of special needs**                          | Requires no reading or writing on the part of the examinee.  
| **Sensitivity to other cultures**                        | Independent consultants representing the perspectives of African Americans, Asians, Hispanics, Native Americans, and women reviewed the target words and artwork of GFTA-2 during development, and modifications were made following these reviews. All items in the GFTA-2 are presented with attractive artwork that is balanced for racial and gender representations.  