# PHONETIC SCIENCE FOR CLINICAL PRACTICE

## A Transcription and Application Workbook

**SECOND EDITION**

**Kathy J. Jakielski**, PhD, CCC-SLP, ASHA Fellow
**Christina E. Gildersleeve-Neumann**, PhD, CCC-SLP, ASHA Fellow

Plural Publishing Inc.

PLURAL PUBLISHING
INC.

9177 Aero Drive, Suite B
San Diego, CA 92123

email: information@pluralpublishing.com
website: https://www.pluralpublishing.com



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# PREFACE

There is a lot to learn in a phonetics course. To understand the science and the clinical application of phonetics, extensive practice is essential. This workbook, a companion to *Phonetic Science for Clinical Practice, Second Edition,* provides a variety of activities to promote student understanding of newly acquired concepts. It emphasizes the understanding of the science behind the practical application of phonetics and the scientific connection to hearing and speech sciences. The questions posed in this workbook tie directly to information in the textbook, allowing students to assess their understanding of concepts and to get practice transcribing speech.

## How to Use This Workbook

This workbook is divided into 10 chapters. The workbook content in Chapters 1 through 9 is directly related to Chapters 1 through 9 in your textbook. These workbook chapters expand on textbook chapters in several ways. There are questions that mirror the "Did You Get It" sections of each textbook chapter, as well as other extension activities. Exercises to increase transcription skills are first introduced in Chapter 2. Transcription exercises in later chapters apply concepts covered in each chapter in the textbook. Chapter 10 is devoted exclusively to transcription practice. Transcription difficulty progresses throughout Chapter 10, with the earlier sections covering single syllable words, progressing to longer sentences. We advise completing sections of Chapter 10 as they match your level of transcription skill.

Both our textbook and our workbook present phonetics from a General American English perspective. This is a simplistic view of English and transcription and is merely a starting point for your transcription skills and phonetic science knowledge. We encourage you to apply this foundation to other dialects of English, other languages, and disordered speech.

Unless indicated otherwise, you can use broad phonemic transcription for the transcription exercises. The only exception is the indication of the allophonic [ɾ] in the answer key. Because /ɑ/ and /ɔ/ are phonemic for some GAE speakers and allophonic for other GAE speakers, the answer key shows both versions as correct. Your professor may request that you add phonetic details to your exercises or that you emphasize dialectal differences present in your community.

## Multimedia Components

The workbook includes audio files for transcription practice. Words or sounds with accompanying audio files are highlighted in green. These audio files are found on the workbook's companion website.

*This workbook is dedicated to our students. Your feedback over the years is at the core of these exercises and transcription sentences. We want to thank the students who helped create the exercises in this book, including Jillian Adkins, Kristina Cruz, Cara Dick, Nathan Hartleben, McKenzie Hendricks, Heather Mason, Bethany Miller, Jennifer Otwell, Evelyn Pulkowski, Micaela Quintana, and Summer Zeimetz. In particular, we would like to thank Jordan Siegel, who is the voice behind the transcription and the spectrograms, and our colleague Andy McMillin, whose expertise in recording and phonetic science was critical to the transcription components of the workbook. To David and Byron, and to Jonathan, Simona, and Elijah, thank you for always being there, for forgiving us for burying ourselves in the workbook creation, and for getting excited for us as this workbook took form.*

PART

I

# EXERCISES

# 1

# INTRODUCTION TO PHONETIC SCIENCE

## 1–1. Branches of Phonetics

Indicate which branch of phonetics is being practiced in each scenario: articulatory, acoustic, auditory, or linguistic.

**1.** Determining if a *z* sound changes in spectral frequency over time by examining a speech spectrogram (a spectrogram is a visible representation of speech).

_____

**2.** Determining if a child's tongue tip is raised or lowered when they produce an *s* sound by watching the child's mouth during speech production.

_____

**3.** Determining if a child is transferring a sound pattern from their native language to words in their second language by examining a written transcript of the words they said.

_____

**4.** Determining if a bilingual adult can differentiate between two sounds—one sound in their language and one sound in a language they do not speak.

_____

**5.** Determining if the vocal folds vibrate during production of the *v* sound by feeling the laryngeal area during production.

_____

**6.** Determining lip movement during production of *b* in word-final position.

_____

**7.** Determining that *t* and *g* encode meaning in English because the words ***"dot"*** and ***"dog"*** are different words.

_____

**8.** Determining the average vocal pitch of French-speaking children.

_____

**9.** Determining if a grade-school child can tell the difference between sounds produced using the tip of the tongue.

_____

**10.** Determining that the *th* sound is meaningful in English but not in German.

_____

## 1–2. Phonemes and Phones

Read each pair of phrases. Place each phrase that denotes the concept of phonemes between virgules, and place the phrases that denote the concept of phones between brackets. The first pair has been done for you.

| | |
|---|---|
| phonemes | /phonemes/ |
| phones | [phones] |
| planning or production of speech sounds | _____ |
| mental representations of speech sounds | _____ |
| the word | _____ |
| the word spoken | _____ |
| the thought of producing a word | _____ |
| the thought of a word | _____ |
| language | _____ |
| speech | _____ |
| out of the mouth | _____ |
| in the head | _____ |

## 1–3. The Continuum of Archaic to Intimate Speech Registers

A. Write the following sentences to represent **citation-form** speech.

**1.** Why ain'tcha goin'?

_____

**2.** Where ya been?

_____

**3.** I gotta git movin'.

_____

**4.** She sumpm else!

_____

**5.** Howdja do on the test?

_____

B. Write the following sentences to represent **casual** speech.

**1.** Can you believe it?

_____

**2.** I really want a day off.

_____

**3.** What did you buy?

_____

**4.** I would love to see you again!

_____

**5.** Let me help you with that.

_____

C. Fill in the following blanks. Then practice reading the paragraph aloud to someone using citation-form speech. Be clear and precise in your articulation, but avoid extreme overexaggeration. Ask your listener for feedback on your articulation. Then, think about how it felt to produce citation-form speech and to whom and in what situations would you speak using a formal or consultative register.

Hello! My name is _____ and I am very happy to meet you. I am originally from _____, and I have been living in _____ for the past _____. I am studying phonetics because _____ _____. One thing I already have learned in phonetics that I find interesting is _____.

**1.** Describe the feedback you received from your listener.

_____

_____

_____

_____

_____

**2.** Note how it felt producing formal speech.

_____

_____

_____

_____

_____

**3.** To whom and in what situations would you speak using a formal register?

_____

_____

_____

_____

_____

## 1–4. Analyzing Spoken Words: Number of Sounds and Syllables

### Low Level of Difficulty

Complete the chart for the words listed.

| Word | # of Sounds | # of Syllables |
|---|---|---|
| bat | | |
| hip-hop | | |
| is | | |
| swim | | |
| hand | | |
| sank | | |
| grand | | |
| dental | | |
| second | | |
| analysis | | |
| electron | | |
| kayak | | |
| static | | |
| pencil | | |