
Speech Science Views and News

SIG 19

INTRODUCTION

This activity presents a diverse perspective, including four different speech science articles focused on a variety of topics. Kimball and Sayce discuss the pros and cons of research using behavior and functional assessment and treatment in the areas of speech science and voice, specifically their limitation in outlining etiology or explaining treatment resistance. They also provide an overview of genetic research approaches as a possible path forward to develop additional evidence-based treatment approaches. Neel reviews the production and perception of extralinguistic information regarding sex/gender, sexual orientation, age, non-native accent, regional and social dialect, and race and ethnicity. The article explores the literature in the above areas reviewing acoustical features and common misperceptions, concluding with instructional activities to enhance student awareness of indexical characteristics. McAllister et al. studied the effects of biofeedback for residual rhotic errors in a preliminary case series. Participants were five native English speakers who had not yet generalized rhotic production. Treatment consisted of either electropalatographic or visual-acoustic biofeedback using the Challenge Point Program software. Although participant responses to treatment were variable, the median effect size tended to exceed the minimum value considered clinically significant. Gritsyk et al. examined three measures to determine which best predicted change in production accuracy during a vowel learning task. Using 20 female college students, researchers administered three tasks: an oral stereognosis task, a bite block task using auditory masking, and a new phonetic awareness task. The bite block task with auditory masking, measuring proprioceptive awareness, was the only task significantly related to performance in speech learning.

LEARNING OUTCOMES

You will be able to:

- describe the pros and cons of behavior and functional assessment and treatment in the areas of speech science and voice
- describe at least one articulatory, phonatory, or prosodic characteristic of speech associated with gender, sexual orientation, age, accent, dialect, race, and ethnicity
- discuss the rationale for incorporating a computer-based adaptive complexity hierarchy in treatment for residual rhotic errors
- compare tasks that measure tactile versus proprioceptive aspects of oral somatosensory acuity

CONTENTS

Research in Speech Science and Voice Disorders: The Promise of Modern Genetic Approaches in Improving Clinical Diagnosis and Treatment by Emily E. Kimballa and Lea Sayce

Promoting Cultural and Linguistic Competence in Speech Science Courses by Amy T. Neel

Computer-Assisted Challenge Point Intervention for Residual Speech Errors by Tara McAllister, Elaine R. Hitchcock, and José A. Ortiz

Toward an Index of Oral Somatosensory Acuity: Comparison of Three Measures in Adults by Olesia Gritsyk, Heather Kabakoff, Joanne Jingwen Li, Samantha Ayala, Douglas M. Shiller, and Tara McAllister

PROGRAM HISTORY and IMPORTANT INFORMATION

Start date: April 26, 2021

End date: April 26, 2026

To earn continuing education credit, you must complete the learning assessment on or before **April 26, 2026**.



ASHA Professional Development is approved by the Continuing Education Board of the American Speech-Language-Hearing Association (ASHA) to provide continuing education activities in speech-language pathology and audiology. See course information for number of ASHA CEUs, instructional level and content area. ASHA CE Provider approval does not imply endorsement of course content, specific products or clinical procedures.

This course is offered for 0.40 ASHA CEUs (Intermediate level, Professional area).