

Speech-Language Pathology and Audiology Major Field Test Review Topics

The purpose of the major field test is to evaluate students' knowledge in their major field and to assess the curriculum within each major. Each year the Office of Institutional Effectiveness establishes the field test dates for each area of study. SLPA majors who plan to graduate in the spring, summer, or fall semester take the exam in the spring Diagnostic Procedures class. The exam consists of 100 multiple choice questions. This study guide is provided prior to the December break so that you will have time to review your course materials before spring semester begins. You may find information from your class notes and textbooks. This is an excellent practice for graduate school comprehensive exams. Do well!

ANATOMY

Muscles, including tongue, soft palate, and facial (know their function, origin/insertion, and enervation)

- Omohyoid m.
- Tensor veli palatine m.
- Interarytenoid m.
- Hypoglossus m.
- Stylopharyngeal m.
- Levator labii m.
- Glossopalantine (or Palatoglossal) m.
- Tensor palatine m.
- Cricoarytenoid m.
- Thyroarytenoid m.
- Posterior Cricoarytenoid m.
- Lateral Cricoarytenoid m.
- Transverse Arytenoid m.
- Oblique arytenoid m.
- Geniohyoid m.
- Stylohyoid m.
- Mylohyoid m.
- Thyrohyoid m.
- Hyoglossus m.
- Genioglossus m.
- Stenohyoid m.
- Digastric m.
- Inferior Constrictor m.

Cartilages, including laryngeal and facial (know their function and enervation)

- Nasal
- Thyroid
- Arytenoid
- Cricoid
- Corniculate
- Cuneiform
- Epiglottis

Nerves, Cranial and Spinal

- Know which CN are germane to speech and hearing
- Know the function of each CN (Sensory, Motor, or Both)
- Know the consequences of insult or lesions to the CN important to speech and hearing, for instance:
 - Dysarthria Apraxia
 - Swallowing Aphasia

Central Hearing Loss Sensorineural Hearing
Loss Velopharyngeal Insufficiency (VPI)
Voice disorders related to enervation Cerebral palsy

Bones (Facial, Cranial, and Otherwise) – locate, describe function

- Ethmoid bone
- Hyoid bone
- Nasal bone
- Zygomatic bone
- Maxilla
- Mandible

The Articulators

- Know the moveable articulators and describe how they work with immovable articulators to produce phonemes
- Know the immovable articulators and describe how they function as agonists in production of phonemes

ASSESSMENT

Compare and contrast the Mean, Median, and Mode Compare and contrast the Standard Deviation and Range

Define and relate each of the following scores to the

- Standard Score
- Percentile
- Stanine
- NCE
- Confidence Level and Range

Compare and contrast different forms of validity (construct validity, content validity, face validity, criterion validity) and of reliability (test-retest reliability; inter-judge and intra-judge reliability; split-half reliability)

Compare and contrast true score versus observed score; how does the standard error of measurement and the

Distinguish between norm-referenced and criterion-referenced assessment instruments;

Understand and explain basic concepts in testing, including basal, ceiling. What is the link between language delay, assessment, and audiology?

LANGUAGE DEVELOPMENT AND LANGUAGE DISORDERS

Brown's Two-word 8 relational-syntactic relationships

- Know and be able to identify the 8 two-word combinations

Brown's 14 developmental morphemes and examples, including computing MLU

- Know and be able to identify the Brown's 14 morphemes

Definitions: communication, speech, dialect, semantics, syntax, morpheme, phonology, pragmatics, type-token ratio, context-bound, overgeneralization, under extensions, mutual exclusivity, whole-object assumption, fast-mapping, syntactic bootstrapping

- Know and be able to identify the above terms/concepts

Know the different types of assessments and when you would use them

- Standardized measure
- Dynamic assessment
- Criterion reference
- Language sampling

Language facilitation/stimulation techniques and models of learning

- Phrase reduction

- Exact repetition
- Expansion
- Partial repetition
- Self-correction
- Interactive model approach
- Behaviorist approach
- Milieu approach
- Normative approach
- Naturalistic approach

Characteristics of specific language impairment (SLI)

- Know the characteristics and hallmarks of SLI

Prevalence of language disorders in children, adults, and elderly

- Specific language impairment
- Intellectual Disabilities
- Traumatic Brain Injury
- Childhood Aphasia
- Dyslexia
- Autism

PHONETICS AND PHONOLOGICAL DISORDERS

Describe primary features of common therapy techniques:

- Successive approximation therapy
- Sensory motor technique
- Paired stimulus approach
- Motokinesthetics
- Phonetic placement

Describe primary features of common therapy approaches:

- Traditional approach
- Phonological process approach
- Stimulability approach
- Sensory motor approach

Describe the following assessment instruments and their use in analysis of speech sound disorders

- Goldman-Fristoe Test of Articulation
- Speech Sample
- Khan-Lewis Phonological Analysis
- Natural Process Analysis

How do each of the following affect the intelligibility of connected speech?

- Sound distortions
- Sound additions
- Sound substitutions
- Sound deletions

Describe and give one example of each of the following phonological processes:

- Reduplication
- Cluster reduction
- Omission
- Weak syllable deletion
- Stopping

- Gliding
- Assimilation
- Blending
- Backing
- Fronting
- Nasalization
- Final consonant deletion

Differentiate and give an example of a phoneme versus an allophone Describe the manner, place, and voicing of all consonants

Define and give an example of each of the following sound changes

- Metatheses
- Spoonerism
- Assimilation
- Hapology
- Dissimilation

FLUENCY DISORDERS

Fluency shaping and stuttering modification approaches-list the parts of each

Measurements used to assess stuttering severity

Myths and truths about stuttering

Theories of stuttering

Define True Stuttering, list examples

Characteristics of developmental dysfluency Importance of early intervention

PROFESSIONAL ISSUES

Know requirements for ASHA certification in Speech-Language Pathology and Audiology

Know provisions of the ASHA Code of Ethics

AUDIOLOGY

Assessment-Be able to describe each of the following test instruments and their purpose in the audiological battery of tests

- Pure Tone Screening
- Pure Tone Audiometry (air conduction and bone conduction)
- Tympanometry
- Speech Audiometry
- Otoacoustic Emissions
- Auditory Brainstem Response

Anatomy-describe the location and function of the following anatomical structures

- External Auditory Canal
- Tympanic Membrane
- Oval Window
- Scala Vestibuli
- Scala Tympani
- Scala Media
- Organ of Corti

For each of the following, determine whether the resulting hearing loss is sensorineural or conductive; then describe each with regard to typical symptoms

- Congenital Atresia

- Eighth Nerve Tumor
- Impacted Cerumen
- Meniere's Disease
- Neurofibromatosis
- Otitis Media
- Otosclerosis
- Presbycusis

Universal Newborn Infant Screening

- Describe tools used to screen infant hearing, including Auditory Brainstem Response (ABR) and Otoacoustic Emissions (OAEs).
- List 3 reasons for development of UNIS program in US
- Describe the 1-3-6 Plan for screening, identifying, amplifying, and intervening with children who have hearing loss

Reading Audiograms

Be able to recognize audiograms representing typical conductive, sensorineural, and mixed hearing losses; rising, flat, sloping hearing losses; mild, moderate, severe, profound hearing losses;

Reading Tympanograms

Be able to recognize and list common causes of the following tympanograms: Type A, Type As, Type AD, Type B (large volume), Type B (small volume), Type C

Hearing screening review: <https://youtu.be/EKJpUA1jHpM>

AURAL REHABILITATION

Communication methodologies

- Manual Systems (American Sign Language, Signed Exact English)
- Cued Speech
- Total Communication
- Oral
- Auditory-Oral
- Auditory-Verbal

Habilitation strategies

- auditory training
- speech and language development
- Ling 6 Sound Test

Understand the acoustics of vowels and consonants as they relate to hearing for an individual with hearing loss

- Vowels
Identified by first two formants Low-frequency energy
Sound source = vocal folds/glottis
Distinguish formant patterns of front versus back vowels
- Consonants
Energy in all frequencies
Sound source = vocal folds, point of constriction in vocal tract Distinguish acoustic patterns including fricative air, low nasal murmur, plosive burst, voice onset time, etc

Know the 1-3-6 Plan/Newborn Hearing Screening

Amplification- know when each of the following would be appropriate for certain degrees or sensitivity of hearing loss (mild, moderate, severe, profound); Sites of lesion (conductive, mixed, sensorineural) or congenital malformation (atresia, microtia, aplasia)

- conventional hearing aid

- Cochlear implant
- Brainstem implant
- Middle ear implant
- Bone-conduction hearing aid

Be familiar with common trouble-shooting strategies for

- Feedback
- Low volume
- Moisture

ORGANIC AND RELATED AREAS

Definition and characteristics of degenerative conditions that result in speech disorders

- Dementia
- Parkinson's disease
- Myasthenia gravis

Types of adult aphasia, site of lesion, and associated characteristics:

- Wernicke's
- Global
- Conduction
- Broca's

Causes and characteristics of the following child conditions:

- Down Syndrome
- Cerebral palsy
- Spina bifida
- Autism
- Cleft lip
- Cleft palate
- Submucous cleft
- Other craniofacial anomalies

Characteristics and causes of voice disorders:

- Hoarseness
- Spasmodic dysphonia
- Aphonia
- Diplophonia
- Breathiness
- Hypernasality
- Hyponasality

Describe physiological changes in the vocal tract across the life span, such as vocal nodules---their causes and prevention

Characteristics/definitions of the following:

- Dysphagia
- Auditory and visual agnosia
- Anomia
- Apraxia
- Dysarthria
- Dementia
- Acalculia
- Agrammatism