

### KASA Knowledge-Based Competencies: Voice and Resonance

Knowledge or Skill Area		Competencies/Questions	Course(s) Where Competency is Acquired
No.	Description		
IV.B.	Knowledge of basic human communication and swallowing processes, including the appropriate <u>biological</u> , <u>neurological</u> , <u>acoustic</u> , <u>psychological</u> , <u>developmental</u> , <u>linguistic</u> and <u>cultural</u> bases.	<p><b>1. Competency:</b> Will demonstrate knowledge of anatomy and physiology of the respiratory, phonatory, and resonance systems in speech production across the lifespan.  <b>Question:</b> 1a. Describe (in 2-3 pages) the physiologic events that occur when a normal adult speaker produces the utterance /papi/ in modal voice register at a normal conversational intensity with respect to</p> <ul style="list-style-type: none"> <li>i. respiration,</li> <li>ii. phonation (including current models of vocal fold vibration),</li> <li>iii. velopharyngeal movement,</li> <li>iv. motor innervation of laryngeal and velopharyngeal muscle movements, and</li> <li>iv. acoustic output.</li> </ul> <p>Please use formal anatomic/linguistic terminology. (IV.B.1)</p> <p><b>2. Competency:</b> Will demonstrate knowledge of the neurological basis of phonation and resonance in speech production.                      (Ref. <b>Question 1a</b>) (IV.B.2)</p> <p><b>3. Competency:</b> Will demonstrate knowledge of the acoustics of voice source and vocal tract properties in normal and disordered voice production.  <b>Question:</b> 1b. Briefly describe (1 page) how these speech production events, acoustic output, and perceived speech output would differ in a 6-year-old child with a history of repaired complete bilateral cleft of the lip and palate, and a diagnosis of severe velopharyngeal insufficiency with compensatory articulation and pressed phonation. (Also ref. <b>Question 1a.</b>) (IV.B.3)</p> <p><b>4. Competency:</b> Will demonstrate knowledge of sociolinguistic and cross-cultural variation in voice use patterns, i.e., pitch, loudness, resonance, and vocal quality.  <b>Question:</b> 2a. Briefly describe (1-2 pages) variations across sociolinguistic, racial/ethnic and cross-cultural groups that could possibly occur with regard to</p> <ul style="list-style-type: none"> <li>a. voice use patterns, i.e. pitch, loudness, resonance, and vocal quality (IV.B.4).</li> </ul>	344, 350, 404, 472, 573
IV.C.	Knowledge of communication and swallowing disorders and differences, including the appropriate etiologies, characteristics, anatomical/physiological,	<p><b>1. Competency:</b> Will demonstrate knowledge of classification systems and clinical characteristics of voice and resonance disorders across the life span (anatomical/physiological, and acoustic).</p>	242, 404, 472, 573

	<p><u>acoustic</u>, <u>psychological</u>, <u>developmental</u>, <u>linguistic</u> and <u>cultural</u> correlates.</p>	<p><b>Question:</b> 3. Using a table or grid, provide a practical clinical classification system for voice disorders, including velopharyngeal/resonance disorders. Please include</p> <ul style="list-style-type: none"> <li>a. basic clinical characteristics/signs,</li> <li>b. a rationale for your choice of categories, and</li> <li>c. a comment on the challenge in creating mutually exclusive categories (IV.C.1)</li> </ul> <p><b>2. Competency:</b> Will demonstrate knowledge of the incidence, prevalence, and nature of voice and resonance disorders that could possibly occur across racial/ethnic groups.</p> <p><b>Question:</b> 2b. Briefly describe (1-2 pages) variations across sociolinguistic, racial/ethnic and cross-cultural groups that could possibly occur with regard to</p> <ul style="list-style-type: none"> <li>b. incidence/prevalence of voice and resonance disorders and their etiologies. (IV.C.2)</li> </ul>	
<p>IV.D.</p>	<p>Current knowledge of the principles and methods of prevention, assessment, and intervention for people with communication and swallowing disorders including consideration of <u>anatomical/physiological</u>, <u>psychological</u>, <u>developmental</u>, and <u>linguistic</u> and <u>cultural</u> correlates.</p>	<p><b>1. Competency:</b> Will demonstrate knowledge of vocal hygiene and voice conservation approaches that may reduce risk for phonotrauma or other vocal fold injuries.</p> <p><b>Question:</b> 4a. What recommendations would you make regarding vocal hygiene and voice conservation? (IV.D.1)</p> <p><b>2. Competency:</b> Will demonstrate knowledge of procedures for selecting, administering, and scoring formal and informal voice and resonance assessment measures, including auditory-perceptual, visual-perceptual, acoustic, and physiologic measures, to identify and characterize voice and resonance disorders, taking developmental, linguistic and/or cultural differences into account.</p> <p><b>Question:</b> 4b. What non-instrumental clinical assessment tasks would you choose to evaluate his/her vocal function? Provide a rationale for each task. What would you expect to find? (IV.D.2)</p> <p><b>Question:</b> 4c. Briefly describe instrumental options for visual-perceptual, acoustic, aerodynamic, and physiologic measures of vocal function. What trends would you expect in these measures? (IV.D.2)</p> <p><b>3. Competency:</b> Will demonstrate knowledge and ability to interpret results from formal and informal voice and resonance assessment measures, taking developmental, linguistic and/or cultural differences into account.</p> <p><b>Question:</b> 4d. Based on the reported information and your expected results from your assessment, what etiological factors may be causing his/her voice disorder? Which clinical signs/symptoms led you to your conclusion? (IV.D.3)</p> <p><b>4. Competency:</b> Will demonstrate ability to formulate appropriate goals, objectives and methods for individuals with voice and/or resonance disorders based on assessment results.</p> <p><b>Question:</b> 4e. Please write two primary goals and objectives for therapy. What management</p>	<p>404, 472, 573</p>

		<p><i>procedures/strategies might you use to address these goals/objectives? Include appropriate referrals to other clinical professionals. (IV.D.4)</i></p> <p><b>5. Competency:</b> Will demonstrate knowledge of the various intervention approaches appropriate for managing voice and/or resonance disorders, taking developmental, linguistic and/or cultural differences into account.  <b>Question:</b> <i>4f. Your patient speaks Japanese at home with his family, and in numerous social/religious activities using a perceptually high pitch. In his teaching and conversation with English-speaking colleagues/students, he tries to speak with a lower pitch. Would you try to lower his speaking pitch in Japanese to a more “optimum pitch?” Provide a rationale for your response, including relevant research findings on this issue. (Also ref. Question 4e) (IV.D.5)</i></p> <p><b>6. Competency:</b> Will demonstrate knowledge of basic motor learning principles as it relates to vocal rehabilitation and habilitation.  <b>Question:</b> <i>4g. Please describe (in 1-2 pages) four important principles of motor learning relevant to effectively facilitate and habituate new vocal production behaviors. Include definitions of types of cueing and describe a hierarchy (most preferred to least preferred) for cueing clients to sensory information based on motor learning principles. (IV.D.6)</i></p>	
IV.F.	Knowledge of processes used in research and of the integration of research principles into evidence-based clinical practice.	<p><b>1. Competency:</b> Will demonstrate ability to interpret clinical evidence-based research outcomes in the selection of appropriate intervention approaches for individuals with voice and/or resonance disorders.  <b>Question:</b> <i>5. Briefly describe (1 page) evidence-based research that would support your choice of Lee Silverman Voice Therapy over traditional articulation and pacing therapy for treating a client with mild-moderate idiopathic Parkinson’s Disease (IV.F.1).</i></p>	472, 500, 573