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Saudi Commission for Health Specialties

Saudi Diploma in Communication and Swallowing Disorders

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بسم الله الرحمن الرحيم

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This program is approved by the Members of the Communication and Swallowing Disorders Scientific Committee at the Scientific Board of Health Rehabilitation at SCFHS.

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INTRODUCTION AND AIM OF THE PROGRAM

This training program was designed to improve the quality of practice for communication and swallowing disorders, the profession of speech-language pathology, and to meet the needs of speech-language pathologists (SLPs) who are seeking to improve their clinical and professional skills. SLPs with various backgrounds developed this program. The training program will be reviewed and updated every four years. The Communication and Swallowing Scientific Committee (CSSC) will supervise the implementation of the program.

The program aims to provide SLPs with high training standards by rotating them in different, well-equipped training centers. The training will be provided and supervised be qualified clinical SLPs (i.e., consultant or first-specialist SLPs).

INFORMATION ABOUT THE PRACTICE OF COMMUNICATION AND SWALLOWING DISORDERS: NATIONAL AND INTERNATIONAL

The professional who provides assessment and therapy for communication and swallowing disorders is an SLP. SLP, as a profession, is part of the applied medical specialties and health rehabilitation. Saudi Arabia was the first Arab country to recognize a speech-hearing disorders program, which commenced at King Saud University's (KSU) College of Applied Medical Sciences, as part of the health rehabilitation sciences department, in 1985.

The program contains intensive clinical training, followed by a compulsory year of internship; i.e., 12 months of dedicated clinical training. The trainee spends 6 months of his/her internship performing SLP services and another 6 months performing audiology services. To date, 529 men and women have graduated from KSU's Speech and Hearing program.

KSU continued to be the only source for graduating SLPs and audiologists until Dar Al-Hekma University (DAH; formerly college) launched the Speech-language and Hearing Sciences program for female SLPs only. The first batch graduated from DAH in 2010, and, as of May 2018, 126 women have completed the program. Graduates are required to spend a year of internship practicing SLP under supervision. In 2017 DAH started a two-year M.Sc. program in SLP.

Recently, Princess Nora University (PNU) launched two separate programs for females: one in SLP and one in audiology. Unlike KSU, where students study both professions in one program and spend half of the internship year in SLP and the other half in audiology, PNU students spend the whole year either in SLP or audiology depending on the program. The first batch of SLPs graduated from PNU in 2016, and 43 individuals have graduated to date.

Several SLPs obtained their bachelor's degree from abroad—mostly from the U.S.A. and a few from other countries such as Australia and Jordan as indicated by SCFHS records. In the U.S.A. the profession of SLP commenced more than 100 years ago. The American Speech–Language–Hearing Association (ASHA) is the organizing body in the U.S.A where over 300 institutions offer degree programs in communication disorders[1]. Graduates with a bachelor's degree in communication disorders (or speech and hearing) in the U.S.A. are not allowed to practice as an SLP; however, they can practice as a speech-language assistant[2]. Notably, this does not give them privileges to provide assessment and/or therapy for communication and swallowing disorders. The entry-level for practice as an SLP in the U.S.A. is a master's degree in speech-language pathology. This is in addition to obtaining a certificate of clinical competence (CCC). The CCC is a clinical degree that is obtained after completing a written exam—PRAXIS—followed by a year of training under supervision—clinical fellowship year (CFY). The SLP can pursue his/her studies and obtain a Ph.D. in the profession, which is mostly a research degree. Recently, the University of Pittsburg launched a clinical degree—doctor of clinical sciences in medical speech and language pathology (CScD). The entry requirement of this program is at least an MSc in SLP, and students are required to have their CCC either before entry or during program training.

[1] https://find.asha.org/ed#sort=relevancy
[2] https://www.asha.org/Advocacy/state/info/LA/Louisiana-Support-Personnel-Requirements/

The situation in Canada is similar to that of the U.S.A. In Canada, the organizing body of the profession is Speech-Language and Audiology Canada. Further, in the United Kingdom, SLP is provided at the bachelor's level (a 4-year program), which qualifies graduates to practice as SLPs. Postgraduate programs (MSc and Ph.D.) are offered by some universities, and only some MSc programs have clinical components. The Royal College of Speech and Language Therapists is the organizing body of the profession in the UK.

Saudi Arabia, Jordan and Egypt has well-established SLP profession compared to the other Arab countries. In Jordan, there are three bachelor's programs and one MSc program (4- and 2-year programs, respectively). In Egypt, the system is slightly different—they consider SLP a medical profession, and MSc and Ph.D. programs are offered to physicians who hold a bachelor's degree in medicine (the program is called "phoniatrics"). However, the graduates from these two programs practice SLP similar to other SLPs. Currently, four Saudis have obtained a Ph.D. in phoniatrics from Egypt. Moreover, there is are individual bachelor's program in Kuwait, Lebanon, and Algeria. Apart from Saudi SLP programs, all other programs in Arab countries do not require a year of internship after individuals obtain their degree. All SLPs who graduate from the above-mentioned programs can practice if they have at least one year of experience and pass the SCFHS certification exam.

Consequently, most SLPs in Saudi Arabia only hold a bachelor's degree. Although over 100 SLPs obtained their MSc from abroad (U.S.A., UK, Canada, Australia, and Jordan), there are no exact estimates. In addition, many SLPs also obtained their Ph.D. from abroad (U.S.A., UK, and Canada); however, these are *research* and not *clinical* degrees. Unlike most health professions, SLPs can practice in schools and health centers. Although practicing in schools and health centers are slightly different, the credentials required by SLPs are identical.

As mentioned before, the practice of SLP differs across countries. It is presumed that the most relevant benchmark for the current diploma is the CFY in the U.S.A., as it comes after an entry-level degree (MSc in the U.S.A. and a bachelor's degree in Saudi Arabia) and is preceded by a written exam (PRAXIS), while the current diploma has an "exit" written exam (promotion exam).

There is a tendency to develop clinical programs (i.e., Clinical Diploma and Residency programs) compared to academic programs (i.e., MSc and Ph.D.) worldwide. In the past 10 years, several clinical programs have evolved in the U.S.A., which was followed in other parts of the world, such as doctor of physiotherapy, optometry doctorate, doctor of audiology, and CScD.

The current clinical diploma is a two-year program. Clinicians who graduate from this program are qualified as first specialists in communication and swallowing disorders after completing two years of clinical experience. The plan is to extend the current program to a 4-year program, where the additional years are designed to focus on a subspecialty (e.g., pediatric language disorders, adult language disorders, pediatric speech disorders, adult speech disorders, or swallowing disorders). The diploma is expected to improve clinical practice in communication and swallowing disorders in Saudi Arabia as it is clinically oriented and based on clinical competency skills.

OUTCOMES AND COMPETENCIES

Overall goal

To graduate SLPs who are well-trained clinically and have the appropriate knowledge in communication and swallowing disorders. This includes, but is not limited to, anatomy and physiology of speech; voice and swallowing mechanisms for both pediatric and adult populations; and the appropriate skills required to diagnose and manage all types of speech, language, voice, and swallowing disorders. It also aims to promote the attitudes required for practicing communication and swallowing disorders, evidence-based practice, the ability to make proper clinical decisions, problem-solving, and fostering specialists and the appropriate management skills to supervise communication and swallowing disorders clinics. In addition, graduates from this program are expected to add to the progressive expansion and development of the field of communication and swallowing disorders through research.

Learning outcomes/educational objectives of the program

Upon successful completion of the two-year program, an SLP will acquire a broad-based understanding of the principles, philosophy, and core knowledge skills and attitudes of the profession. He/she should acquire or develop the following:

1. Clinical and research skills—critically assess and appraise published works together with the ability to design and perform research activities. This will allow the trainee to contribute in a team, and/or individually, to the development of communication and swallowing disorders service;
2. Continuous medical education—develop life-long habits of reading literature, consulting with colleagues, attending scientific meetings, and presenting scientific findings to develop as an individual and advance the field of communication and swallowing disorders;
3. Data management skills—evaluate information derived from the population served and from the technical procedures applied in communication and swallowing disorders. These skills should include familiarity with information technology (IT) and the use of spreadsheets, databases, and statistical packages, and apply it for the use and management of communication and swallowing disorders information in the hospital and in the community;
4. Familiarity—with all aspects of health, ethics, and safety requirements for communication and swallowing disorders;
5. Communication skills—required to deal with patients, colleagues, and other healthcare workers;
6. Management skills—to help trainees gain experience, under supervision, in planning departmental policies and developing the leadership skills necessary to implement them;
7. Attitudes—appropriate ways of addressing patients, colleagues, and other healthcare workers; and
8. Theoretical and practical knowledge—needed to succeed in the certifying examinations following the successful completion of the required training

Program structure

Candidates will undergo five training blocks within the two-year period of completing their Higher Clinical Diploma in Communication and Swallowing Disorders (CDCSD). Each block consists of two targeted topics. By the end of training, candidates should cover all 10 topics required for the CDCSD. The SLP candidates should attend the mandatory rotational blocks in at least three different accredited clinical training centers. Candidates must attend full-time in the clinical facility by attending at least 40 hours/week (see below).

Table 1: CDCSD Training Rotation (Blocks)

Training Year	Block 1	Block 2	Block 3	Block 4	Block 5	Block 6
Diploma year 1	General clinical management skills for communication and swallowing disorders	Pediatric language disorders	Articulation and phonological disorders	Aural rehabilitation	Fluency disorders	Vacation
	4 weeks	**14 weeks**	**12 weeks**	**8 weeks**	**10 weeks**	**4 weeks**
Diploma year 2	Voice disorders	Neurological speech and language disorders	Augmentative alternative communication	Swallowing disorders in children and adults	Evidence-based practice in communication disorders	Vacation
	10 weeks	**12 weeks**	**8 weeks**	**12 weeks**	**6 weeks**	**4 weeks**

*There is flexibility in attending any of the blocks before the other one, except for Block 1, which needs to be attended by trainees at the beginning of training. CDCSD: Higher Clinical Diploma in Communication and Swallowing Disorders.

Specific learning objectives: CanMEDS health practitioner competency framework

The learning objectives of these CanMEDS competencies and proficiency in the topics are incorporated into the program at the various academic activity venues.

Role #1: Speech pathology expert
As a speech pathology expert:

- SLPs integrate all the CanMEDS roles, applying theoretical information, clinical skills, and professional values in their provision of high-quality and safe patient-centered care.
- SLPs draw upon an evolving body of knowledge, their clinical skills, and their professional values.
- SLPs collect and interpret information, make clinical decisions, and perform diagnostic and therapeutic interventions in the areas of pediatric language disorders, articulation and phonological disorders, aural rehabilitation, fluency disorders, voice disorders, swallowing disorders, and neurogenic speech and language disorders.
- SLPs' decision-making is informed by the best practices and evidence-based research, and it considers patients' circumstances, cultural background, and preferences as well as the availability of resources.
- SLPs' clinical practice is up-to-date, ethical, and utilizes resources sufficiently.
- SLPs collaborate with patients and the families, other professionals, and the community.

Role #2: Counselor and communicator

- To develop communication skills required to deal with patients, colleagues, and other healthcare workers
- To provide educational and supportive counseling for patients and their families
- To identify barriers to effective communication and modify the approach to minimize these barriers
- To demonstrate effective verbal and written communication among other colleagues and healthcare workers
- To assist individuals to develop appropriate goals related to a communication or swallowing disorder that capitalize on strengths and address weaknesses related to the underlying structures and functions that affect communication/swallowing
- To facilitate individuals' activities and participation by promoting increased autonomy, self-direction, and responsibility for acquiring and utilizing new skills and strategies that are related to their goals to communicate or swallow more effectively
- To assist individuals in understanding how to modify contextual factors to reduce barriers and enhance facilitators of successful communication/swallowing and participation
- To provide counseling services individually or as members of collaborative teams that may include individuals, family/caregivers, and other relevant persons (e.g., educators, psychologists, social workers, physicians, etc.)
- To develop coping mechanisms and systems for emotional support
- To develop and coordinate individual and family self-help and support groups
- To ensure that individuals, families/caregivers, and other relevant persons receive counseling about communication and swallowing issues
- To provide referral to and consultation with mental health professionals, which may be an integral component of counseling
- To extend counseling long enough to accomplish stated objectives/predicted outcomes and to assure that the counseling period does not continue past the point at which there is no longer any expectation for further benefits

Role #3: Manager
- To develop management skills required to gain experience, under supervision, in planning departmental policies and develop the leadership skills necessary to implement them
- To develop data management skills to evaluate information derived from the population served and from the technical procedures applied in communication and swallowing disorders. These skills should include familiarity with IT and the use of spreadsheets, databases, and statistical packages, and apply it for the use and management of communication and swallowing disorders information in the hospital and in the community
- To maintain accurate clinical records
- To write assessment and progress reports documenting all relevant information

Role #4: Professional
- To develop appropriate attitudes required to deal with patients, colleagues, and other healthcare workers
- To assume ethical and legal responsibility for all patient care
- To analyze, evaluate, and modify one's own behavior
- To model ethical and legal conduct
- To meet and respect deadlines
- To respect and maintain confidentiality of patient information
- To demonstrate integrity, honesty, and compassion in patient care
- To be familiar with all aspects of health, ethics, and safety requirements for communication and swallowing disorders

Role #5: Professional advocate
- To advocate for their roles and responsibilities and for the needs of the patients with communication disorders who they serve in different settings
- To collaborate with healthcare professionals, and/or teachers and other education professionals (depending on the setting) and to assume leadership in explaining and clarifying communication and swallowing issues
- To ensure that "best practice" is always applied for individuals with communication disorders in different settings

Role #6: Scholar and researcher
- To critically assess and appraise published works together with the ability to design and conduct research
- To contribute in a team, and/or individually, to the development of communication and swallowing disorders service
- To develop life-long habits of reading literature, consulting with colleagues, attending scientific meetings, and presenting scientific findings to develop as an individual and advance the field of communication and swallowing disorders

Competencies to be mastered during the program

Trainees should perform the following core clinical competences in all rotational blocks. They will be evaluated according to the provided scale to pass each block.

SLP/medical expert competencies—general management skills

1. Review patients' medical record to identify information about
   - Overall health and cognitive conditions
   - Audiological results
   - Medical diagnosis
   - Other illnesses/disorders
   - Consultations/services received (e.g., clinical notes by Ear Nose Throat (ENT), Gastroenterology (GI), Neurology, and General Surgery)
   - Previous oral surgical procedures
   - Cognitive and behavioral status
   - Auditory, visual, motor, cognitive, and emotional status
   - Verify adequate visual acuity for communication purposes
2. Obtain a case history for different types of communication disorders
   - Ask relevant questions regarding the complaint/concern
   - Address all areas related to the onset and status of the communication disorder (e.g., receptive, expressive, motor, and functional abilities)
   - Inquire about other health issues, including use of medications
   - Biographical information
   - Health history/problems
   - For voice disorders, patients' description and rating
3. Conduct appropriate screening of the communication disorder
4. Conduct audiologic screening appropriate for initial identification and/or referral purposes
5. Perform an oral-motor examination to identify structural and functional regularities and irregularities
6. Adapt evaluation procedures to meet patients' needs (e.g., communication, educational, and cultural)
7. Apply stimulating techniques, as needed, to determine stimulability and responsiveness of patients
8. Conduct follow-up assessment procedures, as needed, for differential diagnosis
9. Refer to and follow-up with other health services as part of the assessment process (e.g., swallowing and feeding) or other medical services
10. Analyze all assessment data and formulate a differential diagnostic statement about patients' condition
11. Write diagnostic reports that include the following:
    - Case history
    - Current complaint/concern and status
    - Administered assessment procedures and rationale
    - Diagnostic findings
    - Recommendations for further assessment or referrals
    - Intervention plan and recommendations
    - Family support plan, as needed
    - Follow-up services, as needed
12. Develop appropriate intervention plans with measurable and achievable goals that meet patients' needs
13. Implement intervention plans that involve patients and relevant others in the intervention process
14. Modify intervention plans, strategies, materials, or instruments, as appropriate, to meet patients' needs

15. Determine the effectiveness of intervention and supports
16. Document the dates, length, and type of interventions provided
17. Maintain patient confidentiality and respect patients' medical and cultural values

SLP/medical expert competencies—evidence-based research and practice in communication disorders

1. Conduct evidence-based research:
   A. Frame a clinical question that relates to patients' disorder using the PICO approach (population, intervention, comparison, and outcome)
   B. a. Seek scientific evidence to help inform clinical management decisions using two major types of evidence:
      - Systematic reviews
      - Individual studies

      b. Conduct a proper search of systematic reviews relevant to the clinical question
      c. Read and interpret systematic reviews relevant to the clinical question
      d. Conduct a proper search of individual studies relevant to the clinical question
      e. Conduct a proper search of systematic reviews relevant to the clinical question
      f. Read and interpret individual studies relevant to the clinical question
   C. Consider the following factors:
      - Relevance of the review to the specific clinical question
      - Who wrote and published the review and to what extent would they would be affected by positive or negative findings?
   D. Assess the studies using two dimensions:
      - Level of evidence
      - Study quality
   E. Combine clinical expertise, patients' perspective, and the available scientific evidence in making a specific clinical decision with a specific patient
2. Develop and apply the research design
3. Collect data
4. Analyze statistical results
5. Write research findings
6. Apply it to practice as relevant to communication disorders

SLP/medical expert competencies—pediatric language disorders

For preschool-aged children

1. Select and administer standardized and/or non-standardized assessment methods considering ecological validity, such as
   - Parental response instruments and observational instruments that examine early communication, pre-linguistic (preverbal), and early speech-language behaviors
   - Developmental scales (including play scales)
   - Instruments that examine emergent literacy, including early drawing and writing, phonological processes, print awareness, and book interactions
   - Language samples in multiple contexts
   - Criterion-referenced developmental scales
   - Examples of play behavior, and nonverbal and early speech-language interactions with caregivers and others
   - Caregiver interviews
   - Contextualized behavioral and functional-communication observations

2. Interpret assessment results and identify underlying weaknesses
3. Provide proper communication interventions for children with language disorders in the following areas:
   A. Preverbal communication (e.g., helping caregivers become sensitive to infants'/toddlers' physical states, needs, gestural cues, and helping them learn to foster the development of preverbal expressions of communicative intentions and turn-taking)
   B. Early receptive language skills (e.g., understanding words, sentences, and communicative intentions with and without nonverbal supports)
   C. Early expressive language skills (e.g., babbling, producing early words and sentences, and expressing a variety of communicative functions verbally and nonverbally)
   D. Social interaction, play, and emergent literacy skills (e.g., engaging in joint action routines, interacting with family/caregivers using toys, baby books, and other age-appropriate literacy materials)
4. Provide information and guidance to patients and families about
   A. Typical speech-language and communication development, emergent literacy, the communication disorder, course and type of intervention, an estimate of intervention duration, prognosis for improvement, and reduction of future risks
   B. Receptive language skills
   C. Expressive language skills (e.g., producing age-appropriate phonology and articulation, producing a variety of words, formulating simple and complex sentences, expressing a variety of communicative functions, and engaging with peers)
   D. Play, social interaction, and emergent literacy skills (e.g., using toys, props, and literacy materials in dramatic play; interacting appropriately with peers and adult partners; interacting with books; and demonstrating emergent writing skills)
   E. Oral narrative skills (from sequences to simple stories)

For school-aged children

5. Select and administer standardized and/or non-standardized assessment methods with consideration to ecological validity, such as
   - Receptive language tests
   - Expressive language test
   - Test for pragmatic skills
   - Language samples in multiple contexts
   - Contextualized behavioral and functional-communication observations
   - Understanding and using syntax, semantics, morphology, narrative skills, etc.
   - Literacy skills (reading and writing)
6. Interpret assessment results, identify underlying weaknesses, and diagnose severity in the following areas:
   - Receptive language disorder
   - Expressive language disorder
   - Pragmatic disorder
   - Social communication disorder
   - Language-based learning disability
7. Provide proper communication interventions for children with language disorders in the following areas:
   - Receptive language skills (syntax, semantics, and morphology)
   - Expressive language skills (syntax, semantics, morphology, and expressing a variety of communicative functions verbally and nonverbally)
   - Pragmatic and social skills

- Narrating and scaffolding
- Literacy skills
- Language-based learning disabilities

8. Provide information and guidance to patients and families about
   - Typical speech-language and communication development
   - Receptive language skills
   - Expressive language skills
   - Pragmatics and social interaction
   - Narrative skills
   - Language-based learning disabilities

SLP/medical expert competencies—articulation and phonological disorders

1. Select appropriate standardized and non-standardized assessment procedures to identify articulation and phonological disorders, which includes
   A. Assessing articulation ability for each speech sound in isolation, single words, and spontaneous speech
   B. Perform speech discrimination assessment for the misarticulated sounds
   C. Perform deep testing and stimulability testing for each misarticulated sound
2. Analyze and interpret test results and information according to the following:
   A. Distinguish between articulation and phonological disorders
   B. Determine if the articulation and/or phonological problem affects place, manner, or voicing of the speech sound
   C. Perform phonological process analyses and differentiate between developmental and disordered phonological processes
   D. Identify any phonological error pattern, if present
   E. Conduct a measure of speech intelligibility
   F. Determine the underlying functional and/or organic etiology of the articulation and phonological disorders
   G. Transcribe patients' articulation error(s) and phonological process(es)
3. Plan and provide intervention for articulation and phonological processes according to the following:
   A. Eliciting a new phonetic-articulatory behavior (e.g., stimulus response, modification from another sound, progressive approximation, varying phonetic contexts, modified phonetic placement, and tactile/kinesthetic cues) to remediate common misarticulations such as the following:
      /ك/ and /خ/ /ق/ and /ص/ ,/س/ /غ/ and /ش/ /ز/ and /ج/
      /ذ/ and /ر/ /ث/ and /ط/
   B. Transfer and generalization: Practicing and establishing phonetic-articulatory behaviors at an automatic level (e.g., repetition, prolongation, exaggeration, utilization of cues, shortening initiation time, simultaneous talking and writing)
   C. Maintenance of phonetic-articulatory behaviors (e.g., structured and unstructured conversational tasks, role playing, and practice in non-therapy settings)
   D. Plan and execute therapy for phonological process disorders (e.g., Hodson and Paden's Cycles and Modified Cycles approach, minimal pairs, maximal opposites, etc.) such as cluster reduction, stopping, fronting and backing, assimilation, and transpositioning)
   E. Create activities that incorporate gradual changes in length and complexity of utterances
   F. Modify therapy plans to enhance client success

4. Provide counseling to clients or parents that establish an environment conducive to articulation/phonological development
5. Demonstrate the ability to deal with the psychological and social effects of the articulation and/or phonological disorder

SLP/medical expert competencies—aural rehabilitation

1. Describe type and degree of hearing loss from audiometric test results, including pure tone thresholds, immittance testing, and speech audiometry
2. Refer to and consult with an audiologist for administration and interpretation of differential diagnostic procedures, including behavioral, physiological, and electrophysiological measures
3. Select and administer appropriate standardized and non-standardized measures for the following:
   A. Speech and language comprehension and production skills and/or alternate communicative skills (e.g., oral, signed, and written or augmented form and vocalization)
   B. Speech perception in auditory, visual, auditory-visual, or tactile modalities
   C. Measures of listeners' behavioral performance with amplification
4. Interpret results of standardized and non-standardized measures of patients:
   A. Language comprehension and production skills and/or alternate communicative skills (e.g., signing and vocalization)
   B. Behavioral measures of listener performance with amplification
   C. Describe the effects of hearing impairment (including disorders of the outer, middle, and inner ear; the auditory nerve; and associated neural and central auditory system pathways and processes) on the development of semantic, syntactic, pragmatic, and phonologic aspects of communication on comprehension, production, and learning
   D. Identify the effects of hearing loss on speech perception, communication performance, listening skills, auditory verbal, speechreading, communication strategies, and personal adjustment
5. Develop and implement an intervention plan based on patients' communicative skills and communicative needs, including
   A. Developing expressive and receptive competencies in patients' preferred mode of communication
   B. Provide speech, language, and auditory interventions including, but not limited to, voice quality and control, resonance, phonologic and phonetic processes, oral-motor skills, articulation, pronunciation, prosody, syntax/morphology, semantics, and pragmatics
   C. Facilitate appropriate multimodal forms of communication (e.g., auditory, visual, tactile, speechreading, spoken language, cued speech, simultaneous communication, total communication, and communication technologies)

SLP/medical expert competencies—fluency disorders

1. Use standardized and/or non-standardized methods to: describe quantitative and qualitative features of patients' fluency or disfluency considering ecological validity
2. Use instrumental measurements of oral, laryngeal, and respiratory behavior, if indicated
3. Analyze and interpret results and provides the following:
   A. Determine stuttering severity, attitudes toward stuttering and speech, speech naturalness, self-efficacy as a speaker, situational fears, and avoidance behaviors

   B. Distinguish normal dysfluency from stuttering in young children
   C. Determine categories of disfluency, extent of fluency or non-fluency, and the presence and type of secondary behaviors
   D. Identify and count the frequency of primary and secondary stuttering behaviors
   E. Determine speech rate
   F. Document secondary features of communication function (e.g., muscular tension, emotional reactivity to speech or stuttering behaviors, coping behaviors, nonverbal aspects of communication, or anomalies of social interaction)
   G. Assess variables that affect fluency (e.g., reduced rate; number of syllables per minute; interviewing patient or family/caregivers about social circumstances, words, listeners, sentence types, and/or speech sounds that present difficulty; modification of interaction style; and/or trial treatment services)
   H. Document type and severity of stuttering-like and nonstuttering-like disfluencies, secondary mannerisms, and associated conditions (e.g., educational and medical diagnoses)
4. Provide intervention/follow-up services to monitor fluency status and to ensure appropriate management, including the following:
   A. Differentiate between fluency shaping, stuttering modification, and integrated approaches to the treatment of stuttering disorders
   B. Use a consistent and systematic reinforcement schedule for young, preschool children who stutter
   C. Create materials that demonstrate the concepts covered in fluency therapy for young children
   D. Correctly model fluency strategies such as easy, relaxed speech, cancellations, pullouts, preparatory sets, voluntary stuttering, continuous phonation, and negative practice exercises
   E. Assist patients in establishing situational hierarchies through problem-solving exercises
   F. Address the affective and cognitive aspects of the stuttering disorder for older school-aged, adolescent, or adult clients
   G. Create treatment plans that facilitate the transfer and maintenance of newly learned fluency skills
   H. Implement evidence-based stuttering therapy programs, such as the Lidcombe program for children aged six years and younger
5. Provide counseling information and guidance to patients, families, and significant others about the nature of stuttering, normal fluency and disfluency, the course of intervention, and prognosis for recovery

SLP/medical expert competencies—voice disorders

1. Conduct screening procedures for the functions of respiration, phonation, and resonance
2. Conduct a comprehensive voice assessment that includes the following:
   A. Demonstrate the use of clinical procedures to perform voice evaluations to determine or elicit the following using acoustic voice analysis using tools, such as Visi-pitch and computerized speech lab, that utilize acoustic voice assessment software such as multidimensional voice assessment:
      - Evaluate pitch measures, including pitch range, optimal pitch, and habitual pitch)
      - Evaluate loudness measures, including vocal loudness, ability to vary loudness, and habitual loudness

- Assess laryngeal musculature/thyroid pressure test (digital manipulation) to investigate the presence of vocal hyperfunction
- Respiratory support during breathing and speech

B. Conduct perceptual voice assessment using standardized perceptual voice assessment methods such as GIRBAS
C. Perform rigid and flexible endoscopic examination of laryngeal mechanism and describe laryngeal function (see the section on the rules for performing laryngeal endoscopy by SLPs)
D. Assess vocal function by measures such as maximum phonation time and S/Z ration, and interpret results
E. Determine the effect of the voice disorder on patients' quality of life by applying the Voice Handicapping Index
F. Conduct respiratory evaluations such as vital capacity, tidal volume, inspiratory reserve volume, and expiratory reserve volume using instruments (e.g., spirometer)
G. Demonstrate the use of clinical procedures to evaluate velopharyngeal competencies. Assessments will include the following:
   - Tongue anchor test
   - U-Tube nasal monometer task
   - Identify closure patterns utilizing nasopharyngoscopy
   - Identify closure patterns demonstrated on a video x-ray
H. Conduct motor and sensory evaluation of cranial nerves involved in voice production (i.e., V-VII-IX-X-XI, and XII)
I. Conduct voice prosthesis assessments

3. Interpret and analyze assessment results through the following:
   A. Integrate data obtained from different voice assessment procedures to describe functional aspects of patients' voice
   B. Identify type of respiration pattern (i.e., clavicular, thoracic, or diaphragmatic-abdominal breathing)
   C. Demonstrate the use of clinical procedures to make differential judgments of a resonance disorder: hypernasality, hyponasality, and assimilative nasality
   D. Demonstrate descriptive judgments of phonation quality and severity including (e.g., hoarseness, harshness, and breathiness)
   E. Write a statement of prognosis of the voice disorder that includes the
      - Degree of organic involvement and structural and functional integrity of the laryngeal mechanism
      - Degree of patient motivation and willingness to change vocal behaviors
      - Patients' ability to objectively discern changes in their own vocal behavior
4. Determine the most appropriate therapy procedure for patients' voice disorder if needed:
   A. Record a voice sample of patients' voice before, during, and after therapy
   B. Provide effective instructions for vocal hygiene
   C. Plans and executes therapy for clients exhibiting the following voice impairments
      - Laryngeal phonation disorder (e.g., hyperfunction, hypofunction, and laryngectomy)
      - Resonance imbalance
   D. Use auditory-visual feedback in providing voice therapy
   E. Implement relevant therapy procedure to improve voice function, such as
      - Vocal function exercises
      - Accent method and abdominal breathing
      - Resonant voice therapy
      - Traditional voice therapy (e.g., chant talk, yawn-sigh, and inhalation phonation
   F. Provide rehabilitation for post-laryngectomized patients

G. Fit a speaking valve for patients with tracheostomies or ventilators
H. Determine the reciprocal effect of the voice disorder on other communication and swallowing functions

SLP/medical expert competencies—neurogenic speech and language disorders

1. Demonstrate the use of appropriate screening for neurogenic communicative disorders
2. Describe a complete protocol for bedside screening for neurogenic communicative disorders
3. Administer standardized assessment tools and/or non-standardized sampling or observational methods to assess and describe patients' knowledge and skills in the areas of language comprehension and language production
   A. Assess auditory comprehension
      - Single word identification
      - Responding to yes/no questions
      - Following commands (simple/complex)
      - Responding to "wh" questions
      - Discourse comprehension
   B. Assess speech production
      - Spontaneous speech
      - Naming
      - Sentence production
      - Discourse production
   C. Assess repetition abilities
      - Single words
      - Phrases/sentences
   D. Assess reading abilities
      - Grapheme identification
      - Words
      - Sentences
      - Paragraphs
   E. Assess writing abilities
      - Grapheme writing
      - Words
      - Sentences
      - Paragraphs
4. Analyze and interpret assessment findings:
   A. Demonstrate the use of the aphasia classification system
   B. Differentially diagnose between aphasia and dementia, and develop knowledge of possible communicative disorders following head trauma and right hemisphere damage
5. Identify contextual barriers and facilitators, and the potential for effective compensatory techniques including the use of augmentative alternative communication (AAC)
6. Provide intervention and follow-up services to monitor language comprehension and production status and ensure appropriate intervention and support in patients with aphasia:
   A. Provide intervention for auditory comprehension skills
      - Single word identification
      - Responding to yes/no questions
      - Following commands (simple/complex)
      - Responding to "wh" questions
      - Discourse comprehension

B. Provide interventions for speech production skills
   - Spontaneous speech
   - Naming
   - Sentence production
   - Discourse production

C. Provide interventions for repetition abilities
   - Single words
   - Phrases/sentences

D. Provide interventions for reading abilities
   - Grapheme identification
   - Words
   - Sentences
   - Paragraphs

E. Provide interventions for writing abilities
   - Grapheme writing
   - Words
   - Sentences
   - Paragraphs

7. Design and execute a treatment plan for at least two different types of neurogenic patients
8. Design and execute a cognitive rehabilitation plan for neurogenic patients
9. Counsel family members of the patients seen, provide written materials from appropriate community agencies, and inform families of community support groups

SLP/medical expert competencies—motor speech disorder

10. Select standardized measures for motor speech assessment considering ecological validity
11. Conduct a comprehensive assessment including the following:
    A. Examine the structure and function of the oral-motor mechanism in non-speech and speech activities including assessment of
       - Muscle tone and muscle strength
       - Motor steadiness
       - Speed, range, and accuracy of motor movements

    B. Perceptually assess speech characteristics including assessing the phonatory-respiratory system (i.e., pitch, loudness, and voice quality), resonance, articulation, and prosody
    C. Analyze natural speech samples in contexts indicated as areas of concern by patients and/or their families
    D. Conduct instrumental analyses, if indicated, to provide acoustic and physiologic measures of speech
12. Interpret information collected from assessment by the following:
    A. Provide an estimate of intelligibility in structured and unstructured contexts
    B. Identify contextual barriers and facilitators and the potential for effective compensatory techniques, including the use of AAC
13. Provide interventions for motor speech disorders by the following:
    A. Use materials and approaches appropriate to patients' chronological or developmental age; medical status; physical and sensory abilities; education, vocation, cognitive status; and cultural, socioeconomic, and linguistic backgrounds
    B. Provide follow-up services to monitor speech status and to ensure appropriate intervention and support in patients with motor speech disorders

C. Improve speech intelligibility by
   - Increasing respiratory support for speech
   - Improving laryngeal function and subsequent pitch, loudness, and voice quality
   - Managing velopharyngeal inadequacy
   - Normalizing muscle tone and increasing muscle strength of the oral-motor structures

D. Improve accuracy, precision, timing, and coordination of articulation
E. Modify speech rate
F. Improve prosody and naturalness of speech
G. Refer, as indicated, to other professionals (e.g., for the use of prosthetics and/or for medical-surgical or pharmacologic management)
H. Develop and train effective compensatory articulation strategies and/or communication strategies or referral for AAC assessment, as appropriate
I. Train others in patients' environment to use communication strategies and cuing techniques to support improved speech production

SLP/medical expert competencies—AAC

Adapted with permission from the American Speech-Language and Hearing Association's Guide to Verifying Competencies in SLP (2009)

1. Review of auditory, visual, neuromotor, speech-language, and cognitive status, including observation of posture, gross and fine motor coordination, and any existing adaptive and/or orthotic devices currently used by patients (e.g., wheelchair, neck braces, communication devices and/or techniques, and other specialized equipment)
2. Use standardized and/or non-standardized methods for assessing patients' use and acceptance of a range of AAC devices, aids, symbol systems, techniques, and strategies
3. Examine specific aspects of voice, speech, language (e.g., spoken and written language samples, reading level), cognition, and existing communication options and abilities that are relevant to AAC
4. Select measures for AAC assessment with consideration for ecological validity, environments in which AAC systems routinely will be used, technology and device features, and preferences of the patient and communication partners (e.g., family/caregivers, educators, service providers)
5. Assess a range of potential AAC systems in multiple controlled and natural contexts (sign language, communication board/book, and augmentative devices)
6. Conduct follow-up services to monitor individuals with identified communication disorders justifying the need for AAC systems based on their cognitive-communication and language status:
   A. Design a suitable AAC system:
      a. Design and develop a communication board/books as an alternate means of communication by doing the following:
         - Determine a symbol system
         - Select vocabulary
         - Collect display items
         - Choose the format
      b. Teach patients to use a pointing response required for the use of the communication board/books
      c. Train patients in the use of communication board/books by teaching the following tasks:
         - Find the proper vocabulary section
         - Learn the location of individual items
         - Use the system to communicate.

   d. Train clients in the operation of an augmentative device by teaching the following tasks:
      - Turn device on/off
      - Find the proper vocabulary/key
      - Learn locations
      - Use the system to communicate

B. Perform adjustments to the AAC system as necessary
C. Evaluate patients' ability to use the AAC system effectively in a variety of contexts, with adjustments made to the system as necessary
D. Gather information from and provide information and guidance to patients, families, caregivers, and significant others about AAC system use, the course of intervention, an estimate of intervention duration, and prognosis for improvement. Ensure the intervention extends long enough to accomplish the stated objectives and predicted outcomes
E. Identify and educate patients, families, caregivers, and relevant others in the operation of the AAC system
F. Plan for optimum patient use, including education in maintaining the AAC system and programming updates and modifications for conversational, academic, and other uses
G. Utilize the AAC system while targeting any other speech-language (spoken or written) and communication goals appropriate to activity/participation needs and patients' age and abilities
H. Recognize situations in which mentoring, consultation, and/or referral to other professionals are necessary to provide quality services to patients who may benefit from AAC
I. Collaborate with members of the multidisciplinary team (i.e., physical therapists, occupational therapists, educators, and other relevant professionals) in providing AAC systems
J. Assess the production of messages through vocalizations, natural speech, manual signs, graphic symbols, and other forms of communication
K. Assess patients' ability to comprehend messages conveyed by natural speech, gestures, graphic symbols, and other forms of communication
L. Assess patients' and communication partners' motivations to use and their attitudes toward AAC
M. Develop plans for dismissal or discharge with predetermined criteria
N. Determine and apply a variety of quantitative and qualitative methods for evaluating outcomes of an AAC intervention plan, such as
   - Interviews and questionnaires
   - Behavioral checklists
   - Observations
   - Rating scales
   - Language sampling
   - Patient performance profiles
O. Use effective reporting procedures to summarize and characterize functional outcomes of intervention

SLP/medical expert competencies—swallowing and feeding disorders

1. Identifies feeding and swallowing disorders:
   A. Recognize signs and symptoms of swallowing and feeding disorders

B. Train caregivers to identify the presence of dysphagia and refer for swallowing and/or feeding assessment
C. Identify significant signs, symptoms, medical conditions, and medications pertinent to dysphagia

2. Conducts swallowing and feeding assessment:
   A. Assesses functions in infants and children, including the following:
      a. Functionally assess muscles and structures used in swallowing, including symmetry, sensation, strength, tone, range, rate of motion, and coordination of movement
      b. Observation of head-neck control, posture, developmental reflexes, and involuntary movements noted per children's developmental level
   B. Demonstrate nutrition knowledge by incorporating information into the case history, communicating with team members, and making appropriate referrals
   C. Conduct an oral, pharyngeal, laryngeal, and respiratory function/expiration examination related to the functional assessment of swallowing and feeding. This includes performing a structural assessment of the face, jaw, lips, tongue, hard and soft palate, oral pharynx, and oral mucosa
   D. Functionally assess of swallowing ability, including suckling, sucking, mastication, oral containment, and manipulation of the bolus; impression of the briskness of swallow initiation; impression of extent of laryngeal elevation during the swallow, and signs of aspiration such as coughing or a wet, "gurgly" voice after swallowing
   E. Assess saliva management, including frequency and adequacy of spontaneous dry swallowing and ability to swallow voluntarily
   F. Assess behavioral factors, including acceptance of pacifier, nipple, spoon, cup, and range and texture of food/liquids as tolerated and developmentally appropriate
   G. Perform appropriate instrumental assessments according to protocols used by the training center. Regarding infants and children, procedures need to be age-appropriate concerning positioning, presentation (e.g., spoon, cup, or nipple; fed or self-feeding; etc.), and material viscosity
      a. Perform a videofluoroscopic swallow study (VFSS)
      b. Perform a fiberoptic endoscopic evaluation of swallowing (FEES)
   H. Assess saliva management, including frequency and adequacy of spontaneous dry swallowing and ability to swallow voluntarily
   I. Assess the effect of intubation on oropharyngeal swallowing (feeding tube, tracheostomy) and the effect of mechanical ventilation on swallowing
   J. Assess the effect of changes in bolus size, consistency, or rate or method of delivery on swallowing
   K. Assessment of the effect of use of therapeutic postures or maneuvers on swallowing
   L. Screening of esophageal motility and gastroesophageal reflux
3. Analyze and interpret assessment results:
   A. Identify abnormal structures that are within the scope of practice of an SLP through direct or instrumental examination (e.g., VFSS, FEES)
   B. Identify abnormal functions in infants and children
   C. Interpret swallowing and feeding examination findings such as clinical swallowing screening (CSS), VFSS, and FEES
   D. Judge airway adequacy and coordination of respiration and swallowing
   E. Determine current nutritional intake (e.g., positioning, feeding dependency, environment, diet modification, compensations)
   F. Identify effects of swallowing and feeding impairments on individuals' activities (capacity and performance in everyday contexts) and participation

   G. Determine contextual factors that serve as barriers to or facilitators of successful eating for individuals with impairment
   H. Document swallowing and feeding examination findings
   I. Identify and interpret cognitive and communication levels of function as a basis for management decisions in a holistic approach to children's environment
4. Develop intervention strategies appropriate to individuals' medical condition, swallowing and/or feeding disorder, cognitive status, and behavioral status
   A. Identify measurable short- and long-term treatment goals targeting functional outcomes
   B. Perform treatment for swallowing and feeding disorders appropriate for the specific age of the infant/child
   C. Provide follow-up services to monitor status and ensure appropriate intervention and support for individuals with identified swallowing and feeding disorders
   D. Identify potential risks of aspiration and appropriate precautions to minimize those risks
   E. Consult with clinical dietitian concerning oral intake
   F. Identify individuals' need for habilitative/rehabilitative techniques and compensatory strategies
   G. Instruct non-SLP staff and other caregivers in treatment techniques, problem-solving, and monitoring of the status of individuals with a swallowing and/or feeding disorder
   H. Determine criteria for discharge/dismissal from treatment
   I. Participate in team-oriented discharge planning

Counselor and communicator competencies

1. Deals with patients, colleagues and other healthcare workers using adequate communication skills
2. Provides educational and supportive counseling for patients and their families
3. Identifies barriers to effective communication and modify approach to minimize these barriers
4. Demonstrates effective verbal and written communication among other colleagues and healthcare workers
5. Assist individuals to develop appropriate goals related to a communication or swallowing disorder that capitalize on strengths and address weaknesses\related to underlying structures and functions that affect communication/swallowing
6. Facilitates individuals' activities and participation by assisting the person to increase autonomy, self-direction, and responsibility for acquiring and utilizing new skills and strategies that are related to their goals to communicate or swallow more effectively
7. Assists individuals in understanding how to modify contextual factors to reduce barriers and enhance facilitators of successful communication/swallowing and participation
8. Provides counseling services individually or as members of collaborative teams that may include individuals, family/caregivers, and other relevant persons (e.g., educators, psychologists, social workers, physicians)
9. Develops coping mechanisms and systems for emotional support
10. Develops and coordinate individual and family self-help and support groups
11. Ensure that individuals, families/caregivers, and other relevant persons receive counseling about communication and swallowing issues
12. Provides referral to and consultation with mental health professionals which may be an integral component of counseling
13. Extends counseling long enough to accomplish stated objectives/predicted outcomes and to assure that the counseling period does not continue past the point at which there is no longer any expectation for further benefit

Manager competencies

1. Gains experience, under supervision, in planning departmental policies and develops the leadership skills necessary to implement them
2. Evaluates information derived from the population served and from the technical procedures applied in communication and swallowing disorders. These skills include familiarity with IT and the use of spreadsheets, databases, and statistical packages, and the ability to apply it for the use and management of communication and swallowing disorders information in the hospital and in the community
3. Maintains accurate clinical records
4. Writes assessment and progress reports documenting all relevant information

Professional competencies

1. Develops appropriate attitudes required to deal with patients, colleagues, and other healthcare workers
2. Assumes ethical and legal responsibility for all patient care
3. Analyzes, evaluates, and modifies one's own behavior
4. Models ethical and legal conduct
5. Meets and respects deadlines
6. Respects/maintains confidentiality of patient information
7. Demonstrates integrity, honesty, and compassion in patient care
8. Is familiar with all aspects of health, ethics, and safety requirements for communication and swallowing disorders

Professional health advocate competencies

1. Advocates for SLP's professional roles and responsibilities and for the needs of the patients with communication disorders who they serve in different settings
2. Collaborates with health professionals, and/or teachers and other education professionals (depending on the setting), and assumes leadership in explaining and clarifying communication and swallowing issues
3. Ensures that "best practice" is always applied for individuals with communication disorders in different settings

Researcher and scholar competencies

1. Critically assesses and appraises published works
2. Designs and conducts research
3. Contributes in a team, and/or individually, to the development of communication and swallowing disorders service
4. Develop life-long habits of reading literature, consulting with colleagues, attending scientific meetings, and presenting scientific findings to develop as an individual and advance the field of communication and swallowing disorders

EDUCATIONAL TOPICS

Table 2: Educational Topics

The following topics should be delivered in seminar format including small group discussions and presentations.

Rotation number	Seminar topic	Objectives: Trainees will obtain sufficient knowledge in the following
1	**Professional aspects and ethics of SLP**	• Ethics and professionalism • Evidence-based ethics • Ethics and financial issues • The ethics of care • Rights of clients • Witnessing and reporting abuse • Confidentiality • Infection control • The ethics of disease prevention
	Psychology for SLPs	• Behavior modifications • Cognitive assessment • Hyperactivity and poor attention • Psychology of counseling • Family counseling
2	**Evidence-based research and practice**	• Research methodology • Research design used in clinical practice of communication disorders • Evidence-based research • Evidence-based practice
3	**Prevention: early intervention in communication disorders**	• Prevention of speech-language and swallowing disorders • Levels of prevention • Early intervention in speech disorders • Early intervention in language disorders • Early intervention in swallowing disorders
	Pediatric language disorders	• Assessment of receptive language • Assessment of expressive language • Language therapy
4	**Assessment of articulation and phonological Disorders**	• Screening of articulation and phonological disorders • Articulation assessment • Hearing screening and auditory discrimination • Assessment of phonological disorders

	Therapy for articulation and phonological disorders	• Introduction to therapy of phonological and articulation disorders • Treatment strategies • Development of a formal transition plan • Disability support services • Treatment of bilingual/multilingual populations • Children with persisting speech difficulties
5	**Aural rehabilitation**	• Speech acoustics • Technology and aural habilitation • Auditory skill development • Auditory management in schools • Parent intervention • Assessment and intervention—preschoolers with hearing loss • Speech intervention—older children with hearing loss • Speech reading, speech, voice, and resonance • Counseling and professional roles • Signing/deaf culture • Case studies and clinical implications

6	**Fluency disorders**	• Dysfluency definition
		• Types of dysfluency
		  ○ Stuttering disorders
		  ○ Cluttering disorders
		• Diagnostic approaches for stuttering and cluttering disorders
		• Intervention of developmental dysfluency
		• Intervention of fluency disorders with neurological origin

7	**Voice disorders**	• Assessment and diagnosis of voice disorders
		  ○ Perceptual evaluation
		  ○ Acoustic voice assessment
		  ○ Laryngeal imaging
		  ○ Video-kymography
		  ○ Aerodynamic assessment
		• Specific populations
		  ○ Alaryngeal voice
		  ○ Aging voice
		  ○ Pediatric voice
		  ○ Professional voice
		• Management of voice disorders
		  ○ Behavioral
		  ○ Medical and surgical
		  ○ Education and counseling

	Resonance disorders	• VPI • Types of VPI • Speech and feeding disorders associated with VPI • Surgical intervention for VPI • Cleft palate team
8	**Neurogenic-language disorders**	• Neuroanatomical perspectives • Neurological disorders that affect speech, language, swallowing, and communication • Progressive neurological disorders • Non-progressive neurological disorders • Neuropathology of the aphasias • Types of aphasias • Neurological disturbances associated with aphasia • Language processing models • Classification systems • Cognitive-communication disturbances secondary to right hemisphere damage • Subcortical aphasia syndromes • Assessment of aphasia and related disorders • Multicultural perspectives • Cognitive-communication disturbances associated with traumatic brain injury • Context for treatment • Cognitive-communication disturbances in dementia • General treatment/management issues
	Motor speech disorders	• Introduction to motor speech disorders • Dysarthria • Apraxia • Effect of motor speech disorders on respiration, phonation, articulation, resonance, and prosody • Assessment of motor speech disorder • Rehabilitation of motor speech disorders
9	**AAC systems**	• Introduction to AAC • Types of patients in need of AAC • Assessment of communication for AAC • Selection of AAC
10	**Anatomy for speech and swallowing**	• Anatomy of the structures required for swallowing • Neuroanatomy for swallowing
	Nutrition	• Introduction to food and nutrition • Measurement of caloric intake • Enteral feeding

	Pediatric swallowing disorders	• Development of feeding and swallowing in infancy and childhood
		• Pediatric feeding and swallowing disorders
		• Assessment of pediatric feeding and swallowing disorders
		  ○ CSS
		  ○ VFSS
		  ○ FEES
		• New technology in assessment
		• Rehabilitation of pediatric feeding and swallowing disorders
		• Enteral feeding
		• Feeding of infants and children with tracheostomies

	Adult swallowing disorders	• Etiologies of adult swallowing disorders
		• Assessment of adult swallowing disorders
		  ○ CSS
		  ○ VFSS
		  ○ FEES
		  ○ New technology in assessment
		• Rehabilitation of adult swallowing disorders
		• Enteral feeding
		• Feeding of adult with tracheostomies

AAC: alternative and augmentative communication systems; CSS: clinical swallowing screening; FEES: fiberoptic endoscopic evaluation of swallowing; SLP: speech-language pathologist; VFSS: videofluoroscopic swallow study; VPI: velopharyngeal port inadequacy and incompetency.

ASSESSMENT OF LEARNING

Purpose of assessment

Assessment plays a vital role in the success of postgraduate training. Assessment will guide trainees and trainers to achieve the targeted learning objectives. In contrast, reliable and valid assessment will provide excellent means for training improvement as it will inform the following aspects: curriculum development, teaching methods, and enhance the quality of the learning environment. Assessment can serve the following purposes:

1. **Assessment for learning**: Trainers will use information from trainees' performance to inform their learning for improvement
2. **Assessment as learning**: Assessment criteria will drive trainees' learning
3. **Assessment of learning**: Assessment outcomes will represent a quality metrics that can improve learning experience

For the sake of organization, assessment will be further classified into two main categories: formative and summative.

Formative assessment

General principles

Trainees, as adult learners, should strive for feedback throughout their journey of competency from "novice" to "mastery" levels. *Formative assessment* (also referred to as continuous assessment) is the component of assessment that is distributed throughout the academic year aiming primarily to provide trainees with effective feedback. Input from the overall formative assessment tools will be utilized at the end of the year to make the decision of promoting each individual trainee from current-to-subsequent training level. Formative assessment will be defined based on the scientific (council/committee) recommendations (usually updated and announced for each individual program at the start of the academic year). According to the executive policy on continuous assessment (available online: www.scfhs.org), formative assessment will have the following features:

1. **Multisource**: minimum four tools
2. **Comprehensive**: covering all learning domains (knowledge, skills, and attitude)
3. **Relevant**: focusing on workplace-based observations
4. **Competency-milestone oriented**: reflecting trainee's expected competencies that match trainee's developmental level

Trainees should actively seek feedback during their training. In contrast, trainers are expected to provide timely and formative assessment. SCFHS will provide an e-portfolio system to enhance communication and analysis of data arising from formative assessment.

Formative assessment tools

1. Continuous assessment (formative assessment)

The trainee must meet the requirements of the clinical program by demonstrating satisfactory performance through continuous formative assessment of knowledge and skills (ASHA, 2005).

A. ***WHY*** implement this assessment? The purpose is to provide regular feedback to trainees about their performance in all clinical/CanMEDS competencies to improve learning
B. ***WHAT*** is assessed? All clinical/CanMEDS competencies within each rotation are assessed
C. ***WHEN*** is this assessment performed? Within the training period of each rotation
D. ***HOW*** is this type of assessment performed? The program implements various assessment methods by different faculty members and supervisors to evaluate a trainee's performance (ASHA, 2005). Assessment methods include the following:
    - ITER: In-Training Evaluation Report
    - Mini-CEX: Mini-Clinical Evaluation Exercise (Frequency 6/year): Assessment Of Clinical Skills With Direct Observation
    i. Each trainee is required to complete a minimum number of Mini-CEX per clinical rotation (see Appendix 2)
    ii. A checklist will be used to document trainees' performance in each clinical interaction
    iii. Upon successful completion of 80% of Mini-CEX within each rotation, the trainee will be eligible to advance to the next rotation
    iv. If a trainee fails to achieve a score of 80%, he/she will be allowed one additional opportunity to achieve this score before being required to repeat the rotation
    - Direct Observation of Procedural Skills (DOPS) (frequency 6/year): assessment of procedural skills through direct observation
    i. Each trainee is required to complete two DOPS per clinical rotation (see Appendix 1)
    ii. A form will be used to document trainees' performance in each trial/attempt of each procedure
    iii. Upon successful completion of 80% of DOPS within each rotation, the trainee will be assessed using Mini-CEX
    iv. If a trainee fails to achieve a score of 80%, he/she will be allowed one additional opportunity to achieve this score before being required to repeat the rotation
    - Multiple source feedback (360-degree evaluation)—assessment of professionalism by colleagues
    - Portfolios—reflective learning tool
    - Logbooks—evidence of cases managed and experienced
    i. Each trainee is required to maintain a logbook documenting the cases they have served
    ii. Failure to maintain a logbook or an incomplete logbook will prevent a trainee from progressing to the following rotation
D. ***WHERE*** is the assessment performed? At the training site for each clinical rotation

Summative assessment

General principles

Summative assessment is the component of assessment that aims primarily to make informed decisions on trainees' competency. In comparison to formative assessment, summative assessment does not aim to provide constructive feedback. For further details on this section, please refer to general bylaws and executive policy of assessment (available online: www.scfhs.org). to be eligible to set for the final exams, a trainee should be granted "*certification of training-completion*."

Certification of training-completion

To be eligible to set for final specialty examinations, each trainee is required to obtain c*ertification of training-completion.* Based on the training bylaws and executive policy (please refer to www.scfhs.org) trainees will be granted this once the following criteria are fulfilled:

1. Successful completion of all training rotations
2. Completion of training requirements as outlined by scientific council/committee of specialty (e.g., logbook, research, and others)
3. Clearance from SCFHS training affairs, that ensures compliance with tuitions payment and completion of universal topics

Certification of training-completion will be issued and approved by the local supervisory committee or its equivalent according to SCFHS policies.

Final specialty examinations

Final specialty examination is the summative assessment component that grant trainees the specialty's certification. It has two elements:

1. Final written exam: to be eligible for this exam, trainees are required to have certification of training-completion
2. Final clinical/practical exam: Trainees will be required to pass the final written exam to be eligible to set for the final clinical/practical exam

To be eligible for the final specialty examination, the trainee should

1. Achieve a minimum passing score of 60% on each assessment tool and 70% of the sum of all tools used
2. Obtain certification of training-completion

"Summative assessment entails pass/fail decisions to determine whether a minimum criterion has been achieved and the individual is ready for a next step." (Hamstra, 2014)

A. ***WHY*** implement this assessment? The purpose is to ensure that the trainee performs at least at a minimum competence level on all clinical/ CanMEDS competencies at the end of each clinical rotation, and determine trainees' eligibility to pass a rotation and advance from one rotation to the next
B. ***WHAT*** is assessed? All clinical/CanMEDS competencies addressed within each rotation
C. ***WHEN*** is this assessment performed? At the end of each rotation (ASHA, 2005)
D. ***HOW*** is this type of assessment performed? The program implements various assessment methods by different faculty members and supervisors to evaluate a trainee's performance (ASHA, 2005) and readiness to proceed to the next rotation. Assessment methods include:
    - Final in-training evaluation report (FITER)
    - Structured oral exam (SOE)
    - i Each trainee will undergo a structured oral examination, one per rotation, to assess a set number of standardized cases
    - ii A form will be used to document trainees' performance in responding to the examination questions
    - iii Upon successfully responding to 80% of the questions for each standardized case in each rotation, the trainee will advance to the next rotation
    - iv If a trainee fails to achieve a score of 80%, he/she will be allowed one additional opportunity to achieve this score before being required to repeat the rotation

E. ***HOW*** are the results of the assessment documented? Specific forms are used to make a judgment about the learning that has occurred within the clinical rotation (e.g., a grade or a test score; ASHA, 2005 http://www.asha.org/about/membershipcertification/handbooks/slp/slp_standards_new.htm
F. ***WHERE*** is the assessment performed? At the training site for each clinical rotation

Certification assessment/exam
Summative Final Assessment
The trainee must pass the certification exam developed and overseen by SCFHS.

A. ***WHY*** implement this assessment? The purpose is to ensure that the trainee performs at least at a minimum competence level on all clinical/ CanMEDS competencies at the end of the program (having completed all rotations); to determine if the trainee has successfully passed the Saudi Diploma program; and to attest that the trainee is qualified to receive the certification
B. Competencies/***WHAT***? All clinical/CanMEDS competencies within each rotation
C. Timing/***WHEN***? End of training/end-of-program
D. Tools/***HOW***? List appropriate tools from above
    - End-of-program final examination
      i. At the end of the program, the trainee will undergo an objective structured clinical examination (OSCE) and a final written examination
      ii. Upon successfully responding to 80% of the questions on the final exam, the trainee will be deemed to have passed the clinical written exam
    - OSCE
      i. OSCE tests actual clinical skills in a structured, multi-station examination format. There will be minimum of 10–12 OSCE stations. The duration of each station is 10–15 minutes. Please see the Guideline for Examination published by the SCFHS for further information
    - Multiple-choice questions (MCQs) based on clinical scenarios
      i. There will be 120–150 MCQs, which is expected to take 2.5–3 hours to complete. Each MCQ will have a structured scenario or problem statement followed by four suggested responses. Please see the Guideline for Examination published by the SCFHS for further information
    - SOE
      i. Each trainee will undergo a structured oral examination at the end of the Clinical Diploma program to assess a set number of standardized cases
      ii. A form will be used to document trainees' performance in responding to the examination questions
      iii. Upon successfully responding to 80% of the questions for each standardized case in each rotation, the trainee will be eligible for certification
      iv. If a trainee fails to achieve a score of 80%, he/she will be allowed two additional opportunities to achieve this score before being required to repeat the program.
E. Site/***WHERE***? SCFHS Headquarters (and/or training site for each rotation?)

Table 3: Assessment Methods

Assessment type	Assessment method	%	Evaluator	Timing and frequency	Skills assessed	Passing score
Formative assessment: In-training evaluation report	Mini-CEX	20%	Director of SLP services or Consultant SLP or Clinical supervisor	Minimum # = 3 Mini-CEX per clinical rotation See Appendix 2 6 sets/year	Assessment of clinical skills with direct observation clinical skills include 1. Taking case history 2. Selecting diagnosis procedures 3. Administering diagnosis procedures 4. Interpreting diagnosis findings 5. Designing treatment plan 6. Implementing treatment plan 7. Collecting clinical data 8. Interpreting clinical data 9. Writing clinical reports 10. Communicating findings 11. Problem-solving skills	80% using the Mini-CEX checklist
	DOPS	10%		Minimum # = 2 DOPS per clinical rotation See Appendix 1 At end of each clinical rotation—6/year	Assessment of procedural skills through direct observation Procedural skills may include: 1. Audiometer (hearing screening)	80% using the DOPS form

					2. Modified barium swallow 3. Visi-pitch 4. Nasometer 5. Endoscopy-related skills	
	MSF (360-degree evaluation)	5%	Director of SLP services or Consultant SLP or Clinical supervisor and Patients and other professionals (e.g., SLPs, nurses, physicians, social workers, PTs, OTs, psychologists, etc.)	Minimum # = 3 MSF per clinical rotation	Assessment of professionalism by colleagues	

	Portfolio	5%	Trainee and Director of SLP services or Consultant SLP or Clinical supervisor	Minimum # = 1 review per clinical rotation Monthly review (once per month)	Reflections about performance (e.g., knowledge, skills, and attitudes)	
	Logbook	5%		Minimum # = 5 cases per clinical rotation Minimum # = 2 of each clinical skill/procedure per clinical rotation	Evidence of cases managed and experienced	100% using Logbook
Total = 45%						
Summative assessment **Final in-training evaluation report**	**SOE**	20%	Examination committee of three or more members (e.g., director of SLP services and/or consultant SLPs and/or clinical supervisors)	1 SOE per clinical rotation Minimum # of standardized cases = 3 cases		80% for each standardized case using the SOE form
Research		5%	Scientific committee	Oral and/or poster presentation at Annual meeting	1. Literature review 2. Research question 3. Research hypothesis 4. Method	

					5. Data collection 6. Data analysis 7. Interpretation of findings 8. Discussion 9. Conclusion	
Total = 25%						
Summative final assessment **End-of-program final examination**	**OSCE**	10%	SCFHS examination committee	# of OSCE stations = 10–12 stations Duration of each station = 10–15 minutes See Guideline for Examination published by the SCFHS	Assessment of clinical skills in a structured, multi-station examination format	80% of each station
	MCQs (clinical scenarios)	10%		# of MCQs = 120–150 questions Duration of exam = 2.5–3 hours See Guideline for Examination published by the SCFHS	Assessment of clinical knowledge and skills using structured scenarios or problem statement, followed by four responses	80% of exam

	SOE	10%		Once at the end of the Clinical Diploma program Minimum # of standardized cases = 4 cases	Assessment of clinical knowledge and skills using an SOE of standardized cases	80% for each standardized case using the SOE form
Total = 30%						
Total = 100% (ITER = 45%, FITER = 25%, Final = 30%)						

DOPS: direct observation of procedural skills; FITER: final in-training evaluation report; ITER: in-training evaluation report; Mini-CEX: Mini-Clinical Evaluation Exercise; MCQs: multiple-choice questions; MSF: multiple source feedback; OSCE: objective structured clinical examination; SCFHS: Saudi Commission for Health Specialties; SLP: speech-language pathologist; SOE: Structured Oral Exam.

Blueprint of the final written exam are shown in the following tables:

Table 4: Blueprint of Questions for Swallowing and Communication Disorders for each Clinical Rotation

	Topic area	Rotation number	Rotation duration	# of MCQs	Percentage
1st year				60	60%
1	General clinical management skills for communication and swallowing disorders	1	4 weeks 14 weeks	6 20	
2	Pediatric language disorders		12 weeks		
3	Articulation and phonological disorders		Total = 6 months	8	
4	Aural rehabilitation	2	3 months	6	
5	Fluency disorders	3	3 months	10	
6	Voice disorders			10	
2nd year				40	40%
7	Swallowing disorders in children and adults	4	9 months	13	
8	Neurological speech and language disorders			15	
9	Alternative and augmentative communication disorders			5	
10	Evidence-based practice in communication disorders	5	3 months	7	
	Total			100	

MCQs: multiple-choice questions.

Table 5: Blueprint for Questions in Swallowing and Communication Disorders

	Subspecialty	Average %	Out of 120 questions
1	Clinical procedures	5.8	7
2	Pediatric language disorders	20.8	25
3	Articulation and phonological disorders	8.3	10
4	Aural rehabilitation (including rehabilitation of children with cochlear implant)	5.8	7
5	Fluency disorders	10	12
6	Voice disorders	10	12
7	Swallowing disorders (pediatrics and adults)	13.3	16
8	Neurogenic speech and language disorders	14.2	17
9	Alternative and augmentative communication systems	5	6
10	Evidence-based research and evidence-based practice in communication disorders	6.7	8
Total		100	120

Table 6: Example of Final Clinical Exam Blueprint

		Dimensions of care				
		Health promotion and illness prevention 1 ± 1 station(s)	**Acute** 5 ± 1 station(s)	**Chronic** 3 ± 1 station(s)	**Psychological aspects** 1 ± 1 station(s)	**# station(s)**
Domains for integrated clinical encounters	**Patient care** 7±1 station(s)	**1**	**4**	**2**		**7**
	Patient safety and procedural skills 1 ± 1 station(s)		**1**			**1**
	Communication and interpersonal skills 2 ± 1 station(s)			**1**	**1**	**2**

	Professional behaviors 0 ± 1 station(s)					**0**
	Total stations	**1**	**5**	**3**	**1**	**10**

*Main blueprint framework adapted from Medical Council of Canada Blueprint Project. For further details on final exams, please refer to general bylaws and executive policy of assessment (available online: www.scfhs.org).

RULES AND REGULATIONS

General rules

The program is subject to the general regulations approved by SCFHS. These regulations must be applied to all trainees for:

1. Rules of training
2. Rules of examinations
3. Rules of accredited training centers

Approved training centers

The CSSC, in cooperation with the accreditation department in the SCFHS, accredits training centers for the provision of the training to the candidates; thus, only trainees who rotate in those approved centers are entitled to accumulate the period of training necessary prior to the promotion exam. The CSSC will annually evaluate the applications or requests for accreditation.

The main requirements for accrediting training centers are as follows:

1. The center should have at least two full-time SLPs who are classified by the SCFHS as first-specialist or higher
2. The center should provide services to children and adults suffering from communication and swallowing disorders; this includes, but is not limited to, the following:
    - Articulation and phonological disorders
    - Pediatric language disorders
    - Fluency disorders
    - Voice disorders
    - Adult language disorders
    - Neurogenic speech and language disorders
    - Swallowing disorders

Program admission and requirements

For acceptance into the Saudi Higher CDCSD program, the candidate must fulfill all the following requirements:

- Hold a bachelor's degree in SLP or communication disorders from a recognized institution
- Certified as a speech-language pathologist from the SCFHS.
- Have a government scholarship or sponsored by a private sector to support the financial fees required for the enrollment in this program; self-sponsorship is also acceptable
- Provide three letters of recommendations from professional tutors, lecturers, supervisors, instructors, or senior/consultant SLP that worked closely with the applicant
- Successfully pass the selection examination and interview, and comply with the administrative or specific regulations of the SCFHS
- Complete the application form in a timely manner during the application period (online application, if applicable)

- Provide complete original copies of all required certificates and letters, upon application
- Provide an obligation to contract signature to abide by all the rules and regulations of the SCFHS upon acceptance

Selection of candidates

Competition for the available posts will be conducted annually to select the candidates according to the following criteria:

- Grade point average
- Clinical experience
- English-language proficiency
- Interviews
- Written examination
- Letters of recommendation

The CSSC, in cooperation with the admission department at the SCFHS, will assign a committee to evaluate, interview, and select candidates.

Program duration, terms, and duty hours

Training duration

The whole duration for the diploma program is two calendar years (96 weeks, excluding annual leave), divided into five rotations—each will cover a designated topic(s) in the diploma. The trainee should perform the needed rotations in at least three different accredited clinical-training centers. Trainees must attend full-time in the clinical facility.

Terms and duties

During the clinical rotations, trainees are required to do the following:

1. Perform all assigned clinical by their direct supervisors.
2. Attend all program's educational activities, which include scientific lectures, conferences, workshops, and subspecialty seminars.
3. Provide didactic presentations on selected topics, case studies, and reviews of journal articles.

Vacation and holidays

1. Trainees are entitled to four weeks of vacation and holidays annually, in addition to Eid-holidays and the national day
2. Emergency sick and maternity leaves: the rules and regulations of the SCFHS are followed
3. Various layers of authorities such as program director and supervisor will provide supervision to the trainees to help them with both professional and personal soft skills development during the program

The Residency Training Committee (RTC).

The committee consists of program directors from each accredited training center. The committee members will select a chairperson for the RTC. This committee should meet regularly, with a minimum of once each rotation to review the performance of the residents. The program directors will report to the committee on the performance of all residents. The functions of this committee are

1. To enforce the general policy for training (selection, admission, evaluation, withdrawal, etc.) in accordance with the Rules and Regulations of Saudi Council for Health Specialties.
2. To review and suggest program changes (if necessary).
3. To supervise the implementation of all program regulations.

Program director

This full-time SLP consultant/or first-specialist will be assigned by the SCFHS Diploma board to supervise and mentor a group of trainees until they complete all SLP diploma training requirements. Program directors are responsible for supporting the trainees in the following:

1. Preform initial interview assessment toward acceptance in the SLP diploma program
2. Guide the trainees in choosing the appropriate clinical setting to perform needed clinical rotations
3. Review and coordinate with the direct clinical supervisors in the assigned clinical setting in the evaluation process and receive copy of all evaluation reports
4. Provide professional development to achieve the needed skills and proper exposures of all clinical experiences needed to finish the diploma
5. Help in proper management of their work and organize their needed assignments, as they need to rotate through multiple sites and subspecialties
6. Help in developing their full potential as future consultants and independent specialists
7. Facilitate any challenges facing the trainees during their clinical rotations in the facilities and identifying any early signs of struggling
8. Provide career guidance

Direct clinical supervisor

Direct clinical supervisors are SLP consultants/first specialists that are assigned to trainees as direct clinical supervisors in each clinical setting. Direct supervisors should have a valid SLP license accredited and classified by the SCFHS and attend the assigned clinical center. They are responsible for the following:

1. Enhance SLP trainees' clinical skills, knowledge, and current understanding of commonly encountered clinical cases and related disorders according to each rotational module
2. Assist SLP trainees in completing an in-depth and thorough patient evaluation, management, and treatment plans by helping provide all the various sources of information needed for clinical management of cases
3. Help SLP trainees establish an evidence-based approach to the provision of SLP clinical management to patients on the assigned rotation
4. Provide daily mentoring and feedback to the trainees and ensure trainees' adequate knowledge and feedback about cases related to the rotation topic
5. Ensure trainees' awareness of the assessment system and its passing requirements
6. Provide regular reports and assessment on the trainees at the end of the rotation
7. Report all evaluation and assessment results to the program director

Elective training

The candidate is eligible for a maximum of three months elective training leave during his/her final year. The candidate is responsible to find a place for training and submit acceptance to the RTC for approval.

Responsibilities of trainees

1. Exhibit commitment to general regulations of training issued by the SCFHS
2. Exhibit commitment to all components and rotations/courses of the training program
3. Demonstrate commitment to the rules and regulations of health facilities/training center in which he/she functions

4. Attend all clinics assigned by the direct supervisor in the clinical setting, inpatient and outpatient duties, and follow-up duties
5. Perform a comprehensive history and complete all SLP evaluations of patients, applying the proper management approach, record patients' assessment clearly, initiate a management plan, and ensure all reports are submitted to the direct supervisor
6. Discuss the management plan, including further testing with trainees' direct supervisor.
7. Perform the basic procedures necessary for determination and management according to level of training and competency
8. Perform all jobs required from trainees of other specialties during hospital rotations according to level of training and competency
9. Complete and submit all components of a training portfolio and the in-training evaluation report—on time and precisely—using the approved forms
10. Attend and actively participate in all academic activities of the training program
11. Attend all scheduled meetings with his/her supervisor/mentor and discuss with him/her learning progress by using the portfolio to discuss educational activities, projects, research, etc.
12. Attend all follow-up meetings scheduled by the program coordinator
13. Be punctual, attending all clinical and academic duties on time
14. Exhibit professional conduct; respect patients, families, and colleagues; pay attention to patient safety and confidentiality; and apply high-quality standards
15. Maintain perfect attendance except for emergency reasons acceptable to the trainer and program director. Absenteeism should be reported to the program director
16. Always be accessible during working hours and respond promptly

Disciplinary measures

Breaches in the program requirements, such as absenteeism and poor performance, will be dealt with by the program coordinator providing the training, and disciplinary actions including dismissal from the program will be performed according to the Rules and Regulations of the SCHS and the participating training centers.

RESOURCES FOR A DIPLOMA IN COMMUNICATION AND SWALLOWING DISORDERS

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Resources for articulation and phonological disorders

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- Competency in swallowing and/or feeding disorders (adapted from “knowledge and skills Needed by SLPs providing services to individuals with swallowing and/or feeding disorders,” 2002)
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Resources for evidence-based research and evidence-based practice in communication disorders

- Haynes, W.O. & Johnson, C.E. (2009). Understanding research and evidence –based practice in communication disorders: a primer for students and practitioners. Pearson: Boston
- Hegde, M.N. (2003) Clinical research in communications disorders: principles and strategies (3rd edition). Pro-ed: Austin, Texas
- Lingui Systems Guide to Evidence Based Practice. Available from Linguisystems.com

APPENDICES

(Appendices 1–4 have been modified from the clinical audiology diploma)

Appendix 1. Direct Observation of Procedural Skills

Direct observation of procedural skills assessment form			
Trainee's name:			
Registration no:			
Observation		Registration #:	
Observed by		Date	
Signature of supervisor			

Description	Satisfactory	Unsatisfactory	Comment
Understand the indications for the procedure and clinical alternatives			
Clearly explain plans and potential risks in a manner that the patient understands			
Good understanding of theoretical background of procedure including anatomy, physiology, and imaging			
Good advance preparation for the procedure			
Communicated plan for procedure to relevant staff			
Demonstrate awareness of risks of cross-infection and effective aseptic technique during procedure			
Procedure success or failure understood in the current setting			
Cope well with unexpected problems			
Handle patient gently and skillfully			
Maintain accurate and legible records including descriptions of problems or difficulties			
Issued clear, post-procedure instructions to patient and/or staff			
Always sought to work at the highest professional standards			

Assessment	
Practice was satisfactory	
Practice was unsatisfactory	

Examples of good practice:

_____

_____

Areas of practice requiring improvement:

_____

_____

Focus areas for further learning and experience:

_____

_____

Appendix 2. Mini-Clinical Evaluation Exercise (Mini-CEX)

Definition

The Mini-CEX is a 10–20-minute direct observation assessment or "snapshot" of a trainee–patient interaction. To be most useful, the evaluator should provide timely and specific feedback to the trainee after each assessment of a trainee–patient encounter.

Purpose

A Mini-CEX is designed to:
- Guide trainees' learning through structured feedback
- Help improve communication, history taking, physical examination, and professional practice
- Provide the trainee with an opportunity to be observed during interactions with patients and identify strategies to improve their practice
- Be a teaching opportunity enabling the evaluator to share their professional knowledge and experience

Trainee responsibilities
- Arrange a Mini-CEX encounter with an evaluator
- Provide the evaluator with a copy of the Mini-CEX rating form

Evaluator responsibilities
- Choose an appropriate consultation for the encounter
- Use the Mini-CEX rating form to rate the trainee
- Provide constructive feedback and discuss improvement strategies. if a trainee received a rating which is unsatisfactory, the assessor must complete the "suggestions for development" section.

Mini-Clinical Evaluation Exercise (Mini-CEX) Rating Form

Trainee name: SCFHS Registration no: Fellowship level:

Date:

Mini-CEX time: min

Observing: min

Providing feedback: min

Summary of case:

☐ New example ☐ Follow-up case

☐ Inpatient ☐ Ambulatory ☐ Emergency ☐ Department ☐ Other

Complexity:

☐ Low ☐ Moderate ☐ High

Focus

☐ Data ☐ Gathering ☐ Diagnosis ☐ Therapy ☐ Counseling ☐ Other

Assessment

Score for stage of training									
Questions	Unsatisfactory			Satisfactory			Superior		
	1	2	3	4	5	6	7	8	9
History taking									
Physical examination skills									
Communications skills									
Critical judgment									
Humanistic quality/ professionalism									
Organization and efficiency									
Overall clinical care									

Suggestions for development:

1-

2-

3-

Evaluator name: Evaluator signature:

Question	Description
History taking	Facilitates patients' narrative; uses appropriate questions to obtain accurate, adequate information effectively; and responds to verbal and nonverbal cues appropriately
Physical examination skills	Follows an efficient, logical sequence; examinations are appropriate for clinical problems; provides patients with explanations; and is sensitive to patients' comfort and modesty
Communication skills	Explores patients' perspectives, jargon free speech, open and honest, empathetic, and agrees with management plans and patient therapies
Critical judgment	Forms appropriate diagnoses and suitable management plans, orders selectively and performs appropriate diagnostic studies, and considers risks and benefits
Humanistic quality/professionalism	Shows respect, compassion, and empathy; establishes trust; attends to patients' comfort needs; respects confidentiality; behaves in an ethical manner; and is aware of legal frameworks and his or her own limitations
Organization and efficiency	Prioritizes, is timely and succinct, and summarizes
Overall clinical care	Demonstrates global judgment based on the above topics

Appendix 3. Final In-Training Evaluation Report/Comprehensive Competency Report

Trainee name:

Trainee SCFHS number:

Evaluation covering the last year as a Fellow:

	Yes	No
In the view of the fellow program committee, the trainee mentioned above has acquired the competencies of the higher diploma in clinical audiology as prescribed in the objectives of training and is competent to practice as a specialist	☐	☐

The following sources of information were used for this evaluation:

	Yes	No
Written exams		
Oral exams		
Clinical observations (by Faculty)		
Objective structured clinical examinations		
Feedback from healthcare professionals		
Completion of a scholarly project		
Other evaluations		

Comments:

Name of program director:
Date:
Signature:

This is to attest that I have read this document.

Name of trainee
SCFHS number:
Date:
Signature:

Trainees' comments:

Note: If, during the period from the date of signature of this document to the completion of training, the Residency Program Committee judges that the candidate's demonstration of competence is inconsistent with the present evaluation, it may declare the document null and void and replace it with an updated FITER. Eligibility for the examination would be dependent on the updated FITER

Appendix 4. Final Clinical Exam Blueprint

		Care dimensions				
		Health promotion & illness prevention 2 ± 1 Station(s)	**Acute** 3 ± 1 Station(s)	**Chronic** 2 ± 1 Station(s)	**Psychological aspects** 1 ± 1 Station(s)	**# station(s)**
Domains for integrated clinical encounter	**Patient care** 4 ± 1 station(s)	**1**	**1**	**2**		**4**
	Patient safety & procedural skills 1 ± 1 station(s)		**1**			**1**
	Communication & interpersonal skills 2 ± 1 station(s)		**1**		**1**	**2**
	Professional behaviors 1 ± 1 station(s)	**1**				**1**
	Total stations	**2**	**3**	**2**	**1**	**8**

*Main blueprint framework adapted from Medical Council of Canada Blueprint Project
(Adapted from SCFHS policy and procedure for examination)

Appendix 5: Suggested Guide for Evaluating Clinical Skills in Mini-CEX

General clinical skills	– Perform oral-motor mechanism examination
Pediatric language disorders	– Take case history for a child with a developmental language disorder – Assess language comprehension of negated adjectives using objects – Assess language comprehension of dual nouns using pictures – Assess expressive language of verbs inflected for gender using objects – Assess narrative discourse
Articulation and phonological disorders	– Assess auditory discrimination of the sounds /s/ and /z/ – Assess auditory discrimination of the sound /k/ and /t/ – Perform deep testing of the sound /k/ – Elicit the sound /g/ in isolation – Elicit the sound /ʧ/ in isolation – Assess phonological processes for a 4-year-old child – Provide therapy for cluster reduction – Provide therapy for initial syllable omission – Provide therapy for a 5-year-old child who has the sound /d/ preference – Maintain progress of therapy for stopping
Dysfluency (stuttering and cluttering)	– Assess rate of speech in an adult with dysfluency – Determine whether the dysfluency in a 4-year-old child is normal dysfluency or stuttering – Obtain information about avoidance behaviors that a young adult with stuttering is adopting – Provide counseling for parents of a child diagnosed with normal dysfluency – Provide counseling for a teacher who has a student with stuttering in his class – Reduce rate of speech of an adult with cluttering who is denying that his rate of speech is fast – Provide therapy for a client with stuttering who is having difficulty initiating the first syllable of the utterance
Voice disorders	– Obtain information about vocal abuse behaviors a female teacher is adopting – Provide therapy for an 8-year-old child with bilateral nodules (singer's nodules) – Provide therapy for an adult male with Muscle Tension Dysphonia – Incorporate results of a perceptual voice assessment for a patient with Puberphonia with results of an acoustic voice assessment – Perform subjective perceptual assessment of hypernasality

Swallowing disorders	– Describe a therapy technique for a 2-month-old infant with poor coordination between sucking, swallowing, and breathing – Provide counseling for the parent of a 2-month-old child who has food aversion and accepts bottle feeding only – Perform clinical swallowing screening for a 70-year-old patient with tracheostomy – Provide therapy for a 75-year-old patient with delayed initiation of swallow trigger with thin fluids that result in penetration but no aspiration
Adult language disorders	– Informally assess the naming abilities of a 60-year-old patient with Broca's aphasia – Assess the repetition abilities of a patient with Wernicke's aphasia – Assess picture identification abilities of a patient who sustained a traumatic brain injury – Assess the pragmatic skills of a 30-year-old patient who sustained a traumatic brain injury – Provide therapy for a 55-year-old female patient with naming deficits – Provide therapy for a 45-year old patient with impaired reading comprehension associated with Wernicke's aphasia – Provide therapy for an 80-year-old patient with Alzheimer's dementia who does not recognize her children
Neurogenic speech disorders	– Assess patients' oral-motor mechanism – Provide therapy for a 60-year-old patient with verbal apraxia associated with left-hemisphere stroke – Provide therapy for a child with flaccid dysarthria – Provide therapy for a patient with right hemisphere damage who presents with apraxia of speech – Assess a 5-year-old child with developmental apraxia of speech – Provide therapy for a 7-year-old child with developmental apraxia of speech
Augmentative and alternative communication systems	– Assess vocabulary selection for a 7-year-old child with severe developmental language delay – Assess symbol comprehension for a 21-year-old patient with traumatic brain injury – Provide therapy for symbol recognition for a 57-year-old patient with global aphasia – Provide therapy for symbol selection for a 6-year-old child with autism

Appendix 6. Suggested Guide for Evaluating Clinical Skills in Direct Observation of Procedural Skills

General instructions	– Show me how to
General clinical skills	– Perform an oral-motor mechanism examination
Pediatric language disorders	– Assess the comprehension of plural nouns using pictures – Assess children's ability to express action verbs – Assess adjectives inflected for number – Provide therapy for a child with limited expressive vocabulary – Provide therapy for a child with narrative discourse problems – Provide therapy for a turn-taking problem – Take case history from parents of a child with a developmental-learning disability – Analyze the following expressive language sample for morphological problems – Analyze the following expressive language sample for semantic problems – Analyze the following expressive language sample for word order problems
Articulation and phonological disorders	– Perform deep testing of the sound /r/ – Analyze the following speech sample for phonological processes – Analyze the following speech sample for misarticulations – Provide therapy for nasal emission of the sound /s/
Dysfluency (stuttering and cluttering)	– List the secondary behaviors in the speech of the client in the following a video-clip – Determine the type and severity of stuttering in the following a video-clip – Perform the Stuttering Severity Instrument for the following a speech sample
Voice disorders	– Provide perceptual voice assessment for the following voice sample – Determine the best therapeutic approach(es) for the following patient (voice sample) with dysphonia – Describe laryngeal structures and voice functions impaired in the following video-clip of a patient with a voice disorder – Describe laryngeal function of a patient with a voice disorder in the following video-clip and design a therapy plan for him

Swallowing disorders	– Describe swallowing function in the following videofluoroscopic swallow study for a patient with a swallowing disorder and suggest a therapy plan – Describe swallowing function in the following fiberoptic endoscopic evaluation of swallowing for a patient with a swallowing disorder and suggest a therapy plan
Adult language disorders	– Demonstrate the implementation of Melodic Intonation Therapy for a patient with aphasia – Demonstrate a method of therapy for following simple commands for a patient with global aphasia – Demonstrate the assessment of auditory comprehension of single word pictures for a patient with Wernicke's aphasia – Analyze the following language sample for word retrieval deficits – Analyze the morpho-syntactic structure of the following language sample from an individual with Broca's aphasia
Neurogenic speech disorders	– Train a patient with left-sided facial weakness effective oral-motor exercises – Demonstrate a method of therapy for a 60-year-old patient with verbal apraxia associated with traumatic brain injury – Demonstrate a method of therapy for a child with flaccid dysarthria – Demonstrate administering a portion of an assessment tool for developmental apraxia of speech for a 7-year-old child – Demonstrate a therapy method for a 9-year-old child with developmental apraxia of speech
Augmentative and alternative communication systems	– Demonstrate training a 5-year-old child with a severe developmental-learning disability to select vocabulary on a picture communication board – Demonstrate involving family members in the selection of an appropriate augmentative alternative communication device for a 21-year-old patient with traumatic brain injury – Demonstrate a method of therapy for symbol recognition for a 57-year-old patient with global aphasia – Demonstrate a method of therapy for symbol selection for a 6-year-old child who is visually impaired

Appendix 7. Trainee Clinical Logbook

Trainee name: _____ **Trainee ID #: _____**

Date	Time started/finished e.g., 8:30–9:00 am	Duration in minutes 15/30/45/60	Age category child/adult	Category (see key on back)	Specific disorder (see key on back)	Session type diagnosis/ treatment

Supervisor name: _____ Signature: _____ SCFHS Number: _____

Rotation #: _____ Rotation type: _____ Site: _____ Date: _____

Disorder key
Category/specific disorder

Speech	Language	Hearing	Swallowing
Articulation Fluency Voice Apraxia Dysarthria	Receptive language delay Expressive language delay Pragmatic deficit Cognitive-communication deficit Aphasia	Aural rehabilitation	