

Московский педагогический
государственный университет



И. В. Андерсен
АНГЛИЙСКИЙ ЯЗЫК ДЛЯ ЛОГОПЕДОВ

Irina Andersen
ENGLISH FOR SPEECH-LANGUAGE PATHOLOGISTS

Учебное пособие в 3 частях

Часть 3

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Учебное пособие по английскому языку предназначено для магистрантов, обучающихся по направлению подготовки 44.04.03 Специальное (дефектологическое) образование (направленность – логопедия), аспирантов, студентов, ведущих научно-исследовательскую работу на разных этапах обучения, профессиональных логопедов, а также для широкого круга лиц, интересующихся проблемами нарушений речи. Учебное пособие опирается на корпус исследований и публикаций по дисциплине, отвечающих актуальной повестке и соответствующих тематике, предусмотренной рабочей программой дисциплины «Иностранный язык для специальных целей». Методологической основой разработки пособия является синергетический подход, предполагающий интеграцию технологии тезаурусного моделирования профессиональных терминов логопедии и корпусные инструменты для организации проблемного подхода к формированию иноязычного научно-профессионального дискурса.

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ПРЕДИСЛОВИЕ ОТ РЕДАКТОРА

Предлагаемое вниманию студентов и преподавателей пособие выпускается на этапе перехода российского образования к суверенной национальной модели высшей школы. Важной и актуальной научно-методической задачей этого процесса является разработка современных концептуальных, содержательных и технологических компонентов иноязычной подготовки будущих специалистов.

Изучение иностранного языка является важнейшей составляющей высшего образования, обеспечивающей формирование коммуникативной, культурологической, исследовательской и других компетенций в их связи с компетенциями профессиональными. В системе подготовки логопедов это изучение имеет свою специфику. Она связана с необходимостью компаративного анализа терминологии в отечественной и зарубежных научных школах, сопряжения профессионального тезауруса, сопоставления схожих и уникальных примеров практической деятельности логопеда в России и других странах, а также широкого привлечения данных смежных наук (медицина, лингвистика, нейропсихология и др.).

Все это определило новый подход к преподаванию профессионального английского языка и созданию учебного пособия. Этот подход основан на синергии, сочетании различных аспектов: тезаурусного, позволяющего изучать профессиональную терминологию в системе, и корпусного, предлагающего инструменты для анализа типичных языковых явлений.

Пособие направлено на развитие навыков профессионального общения на иностранном языке в устной и письменной формах. Изучение языка происходит при погружении в профессиональный контекст, который связан с квалификацией, диагностикой и коррекцией речевых и языковых нарушений, доказательностью данных, междисциплинарным изучением и сопровождением людей с такими нарушениями в различных институциональных условиях,

этическими аспектами работы логопеда и возможностями непрерывного профессионального развития.

Реализованный в пособии подход способствует формированию профессиональной языковой личности будущего логопеда, позволяет студентам глубже понять специфику осваиваемой профессии, расширить свой кругозор, обогатить методический инструментарий. Разнообразные коммуникативные задания помогут студентам освоить англоязычный научно-профессиональный дискурс, приобрести навыки работы с научно-методической литературой. Все тексты и задания в пособии подобраны с опорой на современные исследования в области логопедии и смежных областей, представленные в научной и учебно-методической отечественной и зарубежной литературе.

Пособие разработано в соответствии с программой изучения английского языка для специальных целей, которая включена в образовательные программы магистратуры, а в 2024 г. существенно обновлена для программ специализированного высшего образования по направлению 44.04.03 Специальное (дефектологическое) образование (направленность – логопедия) в МПГУ.¹

Подход, предложенный в пособии, является продуктивным и перспективным для изучения профессионального английского языка не только в магистратуре. Пособие может быть полезным в рамках дисциплин по выбору, практикумов, факультативов, учебно-исследовательской работы студентов на уровне базового высшего образования, а также в аспирантуре.

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¹ Согласно Указу Президента РФ от 12.05.2023 N 343 «О некоторых вопросах совершенствования системы высшего образования» МПГУ в 2023–2025 гг. реализует пилотный проект, направленный на изменение уровней профессионального образования.

PREFACE

This is the third installment of “English for Speech-Language Pathologists,” a coursebook designed to enhance the English language proficiency of master's students undergoing professional training in the field of SLP. This volume is structured into four modules, each dedicated to exploring essential topics of the discipline: Support and Inclusion in SLP, Advancing SLP through Technology, Research and Experimental Design, and Ethics and Professional Development in SLP.

Each module offers 9 hours of guided auditory work, complemented by additional hours for independent study. The content spans theoretical foundations, practical applications, analysis of clinical cases, and critical discussions within professional settings. The integrated independent study component fosters self-directed learning and application of concepts.

This coursebook employs advanced pedagogical strategies to ensure a dynamic and engaging learning experience. Its methodological foundation is rooted in the synergy between thesaurus modelling and a corpus-based approach to developing professional language proficiency. The coursebook's design reflects a commitment to fostering a comprehensive understanding of SLP within an international context. A deliberate emphasis on comparative analysis of Russian and foreign traditions and approaches offers a cross-cultural perspective in global professional understanding of SLP.

Upon completion of this installment, students are expected to demonstrate enhanced proficiency in English communication within diverse professional contexts of speech and language therapy. They will develop critical analytical skills to compare international approaches in the field of SLP, design and interpret fundamental research studies, and navigate ethical dilemmas with cultural sensitivity. Furthermore, students will gain competence in integrating technological advancements into assessment and intervention strategies within the discipline.

We are confident that this coursebook will serve as a practical and beneficial tool in students' pursuit of excellence in the field of SLP, equipping them with the linguistic and professional competencies necessary for success in an increasingly interconnected world.

Author

MODULE 9

SUPPORT AND INCLUSION IN SPEECH-LANGUAGE PATHOLOGY

In this module, you will practise:

Skills focus

Reading	Delivering IDEA-Compliant SLP Services in School
Listening	Speech Therapy at Home: 15 Useful Tips for Parents
Writing	An IEP for a child with ASD and associated communication difficulties
Speaking	<p>Collaborative project: Designing a detailed care map for a child with complex needs requiring extensive rehabilitation and multiple specialist</p> <p>Role-play: A counselling session for the parents of a child with stuttering.</p>

Language focus

<p>Professional terminology</p> <p>Service delivery model, learning outcomes, flexible scheduling, academic year, curriculum, state standards, evidence-based practice, co-teaching, direct pull-out instruction, support program, individual student needs, effectiveness of intervention, supportive co-teaching, complementary co-teaching, pace of learning, classroom environment, least restrictive environment, most natural setting, creating an educational environment, hybrid learning mode, code of ethics, etc.</p>
<p>Functional language for academic and professional writing</p> <p>It is essential that SLPs configure school-wide programs that employ a continuum of service delivery models in the least restrictive environment for students with disabilities and that they provide services to other students as appropriate. It is important to advocate for appropriate services and ensure that service delivery is meeting the intent of IDEA. IEPs must include present level of academic achievement and functional performance, etc.</p>
<p>Functional language for academic and professional speaking</p> <p>Can you describe when you first noticed your child's stuttering and how it has progressed? It's important to know that stuttering can vary greatly, and we will adapt our approach to your child's needs. I understand your concerns about school. Let's talk about some strategies that can help, etc.</p>

Unit 33. School-Based SLP Delivery Models

Activity 1. Work in pairs. Discuss the questions.

1. Which speech and language challenges may students face in a school environment?
2. What is an IEP and how is it developed for students requiring speech-language services?

Activity 2. Use reliable sources to find accurate definitions for the following terms.

	Term	Definition	Source
1	Least restrictive environment		
2	Individualised education program		
3	Pull-out model		
4	Push-in model		
5	Co-teaching		
6	Evidence-based practice		
7	Telepractice		
8	Cyclical schedule		
9	Block schedule		
10	Service delivery model		

Activity 3. Categorise vocabulary terms based on their relevance to different aspects of school-based service delivery in SLP.

Terms: co-teaching, AAC, pull-out model, receding schedule, LRE, IEP, consultative services, systematic review, multidisciplinary team, push-in model, family-centred services, progress monitoring, in-class services, speech-language resource room, indirect service, evidence-based practice, cyclical schedule, direct services, therapeutic intervention, screening

Service delivery models	Formalised plans and approaches	Settings	Types of services	Techniques and principles	Collaborative efforts

Activity 4. Fill in the blanks with the appropriate vocabulary terms from a provided list.

Special education, one-on-one, curriculum, inclusive, pull-out, outside, general, instruction

Push-in services

Push-in services happen in the [1] education classroom. The general education teacher, [2] teacher, and others (like speech therapists or occupational therapists) work collaboratively. This is called [3] education.

The push-in provider brings the [4] and any necessary materials to the student. A reading specialist, for example, may come into the class to work with a student during language arts.

Pull-out services

Pull-out services typically happen in a setting [5] the general education classroom.

While the general education teacher is an important resource, she's rarely involved in [6] services. Instead, the specialist provides the instruction, and it doesn't have to be integrated with the general education [7]. It really depends on a student's needs.

The student goes to the pull-out provider's classroom to work [8] or in a small group setting.

Source: Morin A. The difference between push-in and pull-out services. Understood. URL: <https://www.understood.org/en/articles/the-difference-between-push-in-and-pull-out-services> (Accessed 20.05.2024, 09:00h).

Activity 5. Read the text. What are the key components and considerations for delivering speech-language pathology services in schools according to IDEA²?

Delivering IDEA-Compliant SLP Services in Schools

Selecting the most appropriate service delivery model is a fluid process. While no single model is appropriate for all students, one must understand the range of service delivery models and the advantages and limitations of each model (Nippold, 2012). Student outcomes may be improved if a flexible approach to scheduling and service delivery is adopted. The frequency, location, duration, and intensity of services should be reviewed and revised based on various factors, including:

- ✓ student progress and changing needs throughout the school year
- ✓ access to the general curriculum and state standards
- ✓ promotion of skills that allow the student to improve their academic, social, and emotional functioning
- ✓ demands of the classroom, community, and family
- ✓ cultural considerations
- ✓ team-based decision making

A number of evidence-based practice studies have been conducted using different service delivery models and approaches, including:

- ✓ A systematic review of research showed an advantage for classroom-based models in which the SLP and classroom teacher co-taught language lessons (McGinty & Justice, 2006).
- ✓ Teachers who participated in a collaborative speech-language pathology program were more aware of the impact of the communication disorder on their student's abilities and made more appropriate classroom adaptations (Ebert & Prelock, 1994).

² The Individuals with Disabilities Education Act. IDEA is the nation's special education law. It gives rights and protections to kids with disabilities. It covers them from birth through high school graduation or age 21. Parents and legal guardians also have rights under the law. Source: URL: <https://www.understood.org/en/articles/individuals-with-disabilities-education-act-idea-what-you-need-to-know> (Accessed 20.05.2024, 10:15h).

- ✓ Greater increases in the completeness and intelligibility of student utterances, measured via Systematic Analysis Language Transcripts or SALT (Miller & Chapman, 1986) transcription, were seen with classroom-based collaborative services versus direct pullout services (Bland & Prelock, 1995).
- ✓ Students who received a comprehensive classroom teacher and SLP collaborative intervention program achieved higher scores in listening and writing, and higher abilities in understanding vocabulary when compared with control peers (Farber & Klein, 1999).
- ✓ The collaborative model was more effective for teaching curricular vocabulary to students who qualified for speech-language services than (a) a classroom-based model (with the SLP and classroom teachers working independently) or (b) a traditional pull-out model (Throneburg, Calvert, Sturm, Paramboukas, & Paul, 2000).
- ✓ Classroom-based services may be more effective with regard to generalisation than pull-out therapy services for some areas of language intervention and may result in greater generalisation of new skills to other natural settings (Archibald, L.M. 2017, Cirrin et al., 2010; McGinty & Justice, 2006).
- ✓ Preschool children receiving classroom-based intervention demonstrated a greater ability to generalise the new words that they learned to their home setting (Wilcox, Kouri, & Caswell, 1991).
- ✓ Children with mild to moderate speech sound disorders can receive comparable cumulative intensity of therapy and make similar gains when receiving a short, frequent, individual service delivery model (e.g. 3 times per week for 5 minutes) than from a business as usual model. (Byers, et al. 2021)

Combining service delivery models allows the SLP to focus on the individual needs of students, ensure the educational relevance of speech-language services, and reflect on treatment effectiveness.

Services provided in a separate room - away from the general education classroom - have long been the traditional location for speech-language service delivery. This location allows for focused individual or small-group service delivery but removes students from their peers who are typically developing, and some classroom instructional time is missed.

By providing integrated/in-class services, SLPs work closely with teachers and classroom staff - along with other specialised instructional support personnel (SISP) - to collaboratively address students' goals. This increases team coordination and competency to provide assistance and support to students. Research shows that when SLPs model and instruct on how to implement recommended accommodations and modifications, results include improved communication interactions within the classroom setting (Blosser, 2011).

Determining which model to use within the general education classroom is based on student need and collaboration with the teacher. A variety of in-class models are in use (Cook & Friend, 1995):

- ✓ ***supportive co-teaching*** - the SLP and teacher partner together as co-teachers. One takes the lead in instructing the class while the other moves among students to provide prompts, redirection, or direct support and vice versa.
- ✓ ***Complementary co-teaching*** - the SLP and teacher partner together as co-teachers during whole-group instruction. One enhances the instruction provided by the other co-teacher by providing visuals, examples, paraphrasing, and modelling.
- ✓ ***Station teaching*** - instructional material is divided into parts, with the SLP and the classroom teacher(s) each taking a group of students. Students rotate to each station, or learning centre, for instruction.
- ✓ ***Parallel co-teaching*** - the students are divided, and the classroom teacher and the SLP each instruct a designated group of students simultaneously in different areas of the same classroom, with the SLP taking the group of students that needs more modification of content or slower pacing in order to master the educational content.
- ✓ ***Team co-teaching*** - the SLP and the classroom teacher plan, teach, and assess all of the students in the classroom. Capitalising on the strengths and skill sets of the SLP and the teacher, these teaching partners alternate between serving as the lead or providing support.
- ✓ ***Supplemental teaching*** - one person (usually the teacher) presents the lesson in a standard format while the other person (usually the SLP) adapts the lesson.

Speech-language services may be provided in a variety of educational settings, such as the playground, media centre, lunchroom, vocational

training site, music classroom, physical education room, and other classrooms. IDEA mandates that services be provided in the least restrictive environment and/or most natural setting.

Telepractice uses telecommunications technology to deliver speech-language services remotely. Technology allows the clinician to link to the student for assessment, intervention, and/or consultation. Studies have demonstrated that telepractice can be an effective service delivery model. Factors to consider in schools when using telepractice as a service delivery option include:

- ✓ compliance with licensure and teacher certification requirements
- ✓ appropriate client selection
- ✓ creating an environment conducive to learning
- ✓ providing suitable equipment and appropriate technology
- ✓ maintaining privacy and security
- ✓ meeting IDEA documentation and notification requirements
- ✓ adhering to ASHA's Code of Ethics
- ✓ ensuring that the quality of services is comparable to that of services provided via in-person intervention
- ✓ working simultaneously with groups of students in a hybrid model (e.g., in-person and via telepractice).

Compiled from: American Speech-Language-Hearing Association. School-based service delivery in speech-language pathology.

URL: <https://www.asha.org/slp/schools/school-based-service-delivery-in-speech-language-pathology/> (Accessed 20.05.2024, 10:00h).

Activity 6. Read the text and complete the table.

	Statements	True	False	Not stated
1	Flexible scheduling and service delivery models can enhance student outcomes in school-based SLP.			

	Statements	True	False	Not stated
2	Research shows that classroom-based SLP services are less effective in helping students generalise new skills compared to pull-out services.			
3	Providing SLP services in a separate room ensures that students remain fully integrated with their typically developing peers.			
4	Research shows that SLP and teacher co-taught language lessons can be advantageous for student learning.			
5	Selecting an SLP service delivery model should consider cultural factors.			
6	Telepractice has been found to be an ineffective model for delivering SLP services.			

Activity 7. Work in pairs. Discuss why the following things were mentioned in the text.

1. Flexible scheduling
2. Integrated/in-class services
3. Telepractice
4. Co-teaching
5. LRE
6. Cultural considerations
7. Station teaching
8. Collaborative teaching models
9. SALT
10. SISP

Activity 8. Choose the topics to talk about. Prepare your ideas, then work in pairs and share your perspectives.

1. Emerging SLP service delivery models
2. Impact of technology on SLP service
3. The importance of cultural considerations in SLP service delivery
4. The benefits and challenges of collaborative teaching models
5. Effectiveness of different SLP service delivery models

Activity 9. Translate each Russian term into its English equivalent. Provide an explanation of the equivalence, similar to the example.

Russian term	English equivalent
телепрактика	telepractice

Equivalence explanation: both terms refer to delivering professional services remotely using telecommunications technology. Commonly used for services such as speech-language pathology, therapy, and consultations.

One-word terms:

частота (занятий), место (проведения), продолжительность, интенсивность, прогресс, учащиеся, потребности, навыки, цели, подсказывать, перефразировать, моделировать, наглядный, адаптировать, телепрактика, оценка, вмешательство, сопровождение, консультация, конфиденциальность.

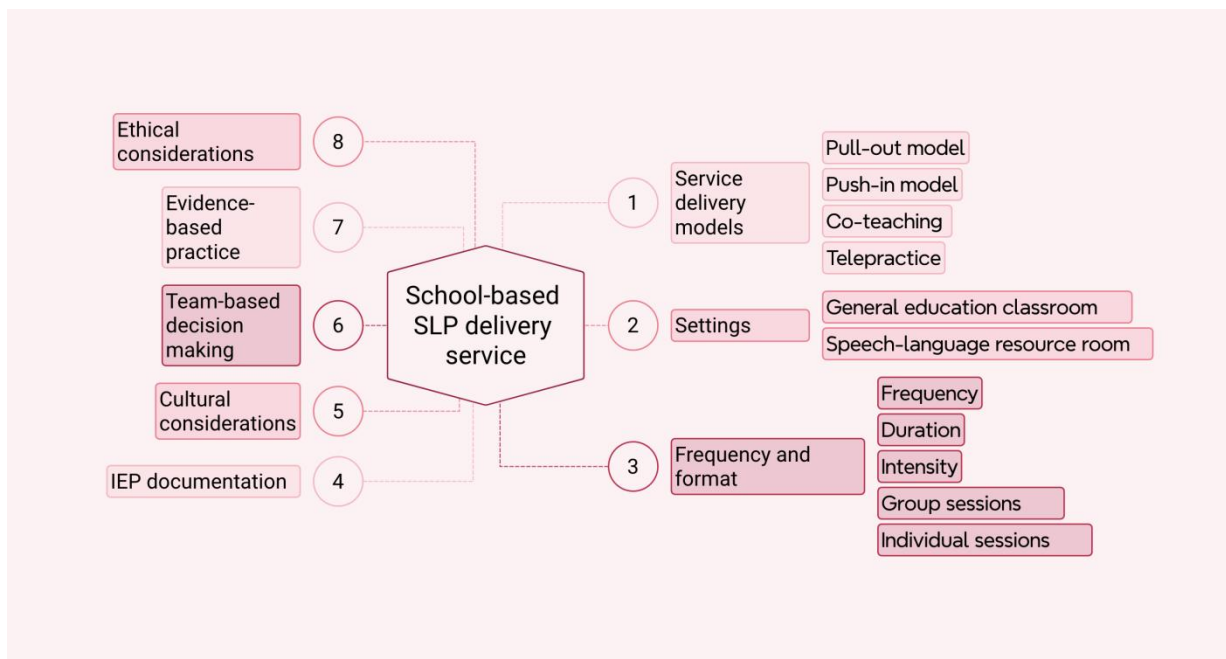
Terminological units:

специальные условия обучения, модель организации коррекционной работы, результаты обучения, оценивание результатов, гибкий подход к составлению расписания, учебный год, учебный план, государственный стандарт, доказательная практика, совместно вести урок, вносить изменения в учебный процесс, индивидуальное логопедическое занятие, групповое (подгрупповое) логопедическое занятие, речевой режим, программа сопровождения, индивидуальные образовательные потребности учащихся, эффективность коррекционной работы, поддерживающее совместное преподавание, дополняющее совместное преподавание, темп освоения учебного

материала, учебное помещение, наименее ограничивающая среда, наиболее естественная обстановка, создание образовательной среды, гибридный режим обучения, этический кодекс.

Activity 10. Analyse the fragment of the mind map for school-based SLP delivery methods. Answer the questions.

1. How do different service delivery models (e.g., pull-out, push-in, co-teaching, telepractice) impact student outcomes in speech-language pathology?
2. In what ways do general education classroom and speech-language resource rooms influence the effectiveness of SLP services?
3. What are the benefits and challenges of group versus individual SLP sessions?
4. Why is it important to incorporate cultural considerations and multilingual services in school-based SLP?
5. What role do evidence-based practices play in developing and implementing SLP services?



Activity 11. In groups choose two specific categories from the mind map above and do research. Compile your findings and integrate them into the existing map.

Activity 12. Use the Corpus of Contemporary American English (COCA) to analyse the lexico-grammatical profiles of the terms related to inclusive education. Complete the table.

Term	Collocations	POS	Syntactic patterns	Example sentences
LRE				
integrated/in-class service				
cultural considerations				
collaborative teaching models				
push-in model				
differentiated instruction				
universal design for learning				
assistive technology				
individualised education program				

Activity 13. Work in pairs. Which service delivery model do you find most effective for students with diverse needs? Why?

Unit 34. Family-Centred Approaches in SLP

Activity 1. Work in groups. Discuss the questions.

1. How can involving family members in speech therapy sessions enhance a child's speech and language development?
2. What daily activities can parents use to support their child's speech and language development at home?

Activity 2. Classify the following terms into the correct category based on their relation to family-centred care in SLP.

Clear and simple language, consistency, choices and decision making, having fun, visual aids, engaging activities, patience and support, everyday opportunities, repetition, storytelling, encouragement, modelling and imitation, listening exercises, speech therapy toolbox, professional guidance

Techniques for language development	Family involvement strategies	Tools and resources	Behavioural approaches

Activity 3. Work in pairs. Complete the K-W-L chart by listing what you already know about family-centred care in SLP. After completing the unit, fill in what you have learnt in the third column.

K-W-L chart on family-centred care in SLP

K - Know	W - Want to know	L- learnt

Activity 4. Watch the video “Speech Therapy at Home: 15 Useful Tips for Parents.”³ Why is it important to involve the entire family in speech therapy activities?



Activity 5. Work in pairs. Compare your ideas and discuss.

1. How can using clear and simple language at home benefit a child’s speech development?
2. How does providing choices to children enhance their communication skills?
3. What fun activities mentioned in the video can help engage children in speech therapy?

Activity 6. Watch the video about family-centred care in SLP again and choose two letters (A-E) that the speaker mentions about the importance of involving families in speech-language therapy and the benefits for the child’s development.

The importance of involving families in speech-language therapy includes:

- A. Families can provide consistent practice and reinforcement at home.
- B. It can replace the need for professional therapy sessions with a qualified SLP.
- C. Professional therapy sessions alone are sufficient for significant improvement.
- D. Family involvement enhances the child’s motivation and engagement in therapy.
- E. Parents often have a deep understanding of their child’s unique communication needs.

³ URL: <https://www.youtube.com/watch?v=a-EH9COKvIs> (Accessed 22.05.2024, 08:10h).

Children receiving family-centred SLP services often benefit by:

- A. Developing stronger communication skills through regular practice.
- B. Experiencing increased frustration due to conflicting methods.
- C. Feeling more supported and confident in their abilities.
- D. Struggling to generalise skills outside of therapy sessions.
- E. Building stronger bonds with their family members because of feeling inferior and pitied by everyone at home.

Identify which of the following are effective strategies for family-centred SLP care:

- A. Using clear and simple language
- B. Encouraging children to imitate adults
- C. Providing professional-only intervention
- D. Incorporating storytelling and games
- E. Maintaining a rigid, inflexible routine
- F. Avoiding visual aids and repetition

Activity 7. Complete the table, using one word in each gap.

Aspects of family-centred care	Description	Impact on child	Intervention focus
Consistency	Regular practice of speech therapy exercises at home.	Builds (1) _____ and structure.	Establish a consistent practice schedule.
Involvement	Active participation of family members in therapy.	Increases (2) _____ and support.	Encourage family engagement.
Communication	Using clear and (3) _____ language.	Improves understanding and expression.	Enhance (4) _____ skills.

Aspects of family-centred care	Description	Impact on child	Intervention focus
Encouragement	Providing positive (5) _____ and support.	Boosts (6) _____ and confidence.	Use positive feedback.
Flexibility	Adapting activities to the child's (7) _____ needs.	Meets individual requirements.	Customise therapy activities.
Routine	Integrating speech therapy into daily (8) _____.	Ensures regular practice.	Incorporate therapy into daily tasks.
Engagement	Making therapy fun and (9) _____.	Increases participation and interest.	Use (10) _____ and interactive activities.

Activity 8. Work in pairs. Discuss the questions.

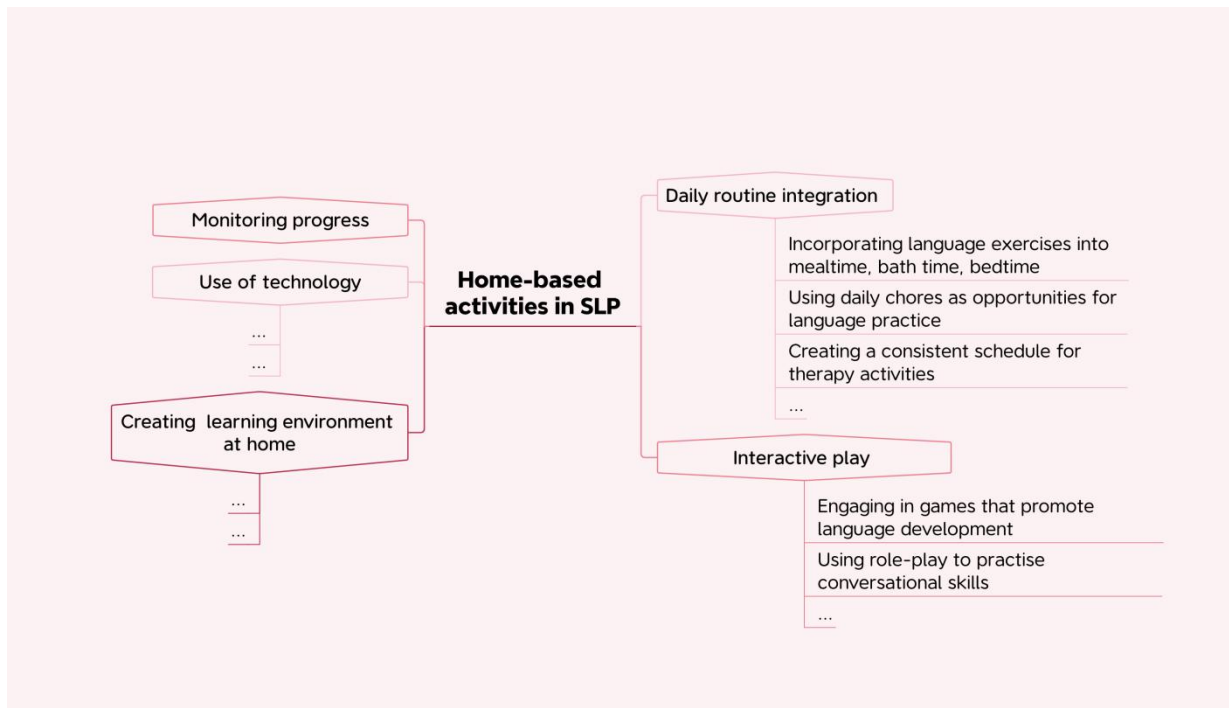
1. How can parents integrate speech therapy exercises into their daily routines to support their child's development?
2. What are the benefits of using visual aids and repetition in home-based speech therapy activities?
3. In what ways can storytelling and games be used to enhance a child's speech and language skills at home?
4. What role does patience play in the success of family-centred speech therapy? How can parents cultivate it?

Activity 9. Use reliable sources such as ASHA and scholarly articles to find definitions and explanations for each term related to family-centred care in SLP. Complete the table.

Term	Definition	Source
Simplifying language		
Positive reinforcement		

Term	Definition	Source
Routine		
Modelling		
Engagement		

Activity 10. Work in groups. Choose one aspect related to therapeutic home-based activities in SLP and research it in depth. Expand the mind map given below.



Activity 11. Prepare a presentation on your research. Include definitions, examples, and real-world applications of the therapeutic techniques.

Activity 12. Discuss in groups.

1. What are the potential advantages of integrating speech exercises into daily routine?
2. How can technology be used to support speech therapy at home?

Activity 13. Reflect on challenges that might arise when implementing family-centred care in SLP and possible solutions to overcome them.

Unit 35. Integration of UDL Principles into Designing IEPs

Activity 1. Discuss in groups.

1. How can UDL principles improve the effectiveness of IEPs for students with diverse learning needs?
2. What challenges might educators face when applying UDL principles to developing IEPs?

Activity 2. Read the text. How do tailored services benefit students with speech and language needs?

IEP Documentation

IEP documentation can influence the service delivery model that an SLP uses to provide services in schools. According to ASHA's Practice portal page on documentation in schools, services must be provided "according to what is agreed upon and documented in the IEP, including the frequency, type, duration, and location of services." Service considerations must be individualised according to IDEA. Caseloads that have a large percentage of students receiving the same amount and frequency of services (e.g., 2×/week for 30 minutes) may not be appropriately meeting the IDEA service provision requirements.

Some districts or states are more flexible in how services can be documented on the IEP. They allow "minutes per reporting period or semester" as acceptable means of recording frequency and duration of services. Documentation that allows for contact hours or services per month would allow SLPs to vary service provision while still providing appropriate services that meet the student's needs in accordance with IDEA. IEPs could also reflect changes in the frequency and location of services, depending on the individual student's needs and progress (e.g., start with more intensive services to teach a new skill and transition to less frequent or in-class services). Check with your state Department of Education or district regarding their policies for reporting services.

ASHA's 2010 professional issues statement titled Roles and Responsibilities of Speech-Language Pathologists in Schools suggests a framework for providing services in schools. Included in this professional issues statement is a list of the SLP's range of responsibilities; several of those responsibilities relate to service delivery:

1. **Program design** - it is essential that SLPs configure school-wide programs that employ a continuum of service delivery models in the least restrictive environment for students with disabilities and that they provide services to other students as appropriate.

2. **Collaboration** - it is important that collaboration occur with parents/guardians and other support personnel (currently referred to as SISP) to provide appropriate services.

3. **Leadership** - it is important to advocate for appropriate services and ensure that service delivery is meeting the intent of IDEA.

The Individuals with Disabilities Education Act (IDEA) Part B requires that an Individual Education Plan (IEP) be developed for every student who receives special education services. The IEP is a legal and binding document and must be followed as written. By law, IEPs must include:

- present level of academic achievement and functional performance
- statement of special education and related services as well as supplemental aids and services
- measurable annual goals
- how progress will be measured
- modifications and accommodations that will promote progress toward goals
- testing accommodations
- transition planning to prepare for life after high school graduation.

Compiled from: School-Based Service Delivery in Speech-Language Pathology. ASHA. URL: <https://www.asha.org/slp/schools/school-based-service-delivery-in-speech-language-pathology/#IEP>, Individualised Education Programs (IEPs). ASHA. URL: <https://www.asha.org/slp/schools/school-based-service-delivery-in-speech-language-pathology/#IEP> (Accessed 23.05.2024, 16:00h)

Activity 3. Work in pairs. Discuss why the following things were mentioned in the text. Support your ideas by referring back to the text.

1. IEP
2. Individualised service considerations
3. IDEA service provision requirements
4. Functional performance
5. Individual needs

Activity 4. Work in groups to answer the following questions. Refer to the text to guide your analysis.

1. What specific speech and language problems should be addressed in the IEP?
2. How to create SMART goals that target specific aspects of speech and language development.
3. What types of services and supports should be included in the IEP to meet the child's needs?
4. How can the IEP incorporate family-centred care principles to support the child at home?
5. What accommodations and modifications might be necessary to support the child in the classroom?
6. How will progress be monitored and communicated to ensure the IEP goals are being met?

Activity 5. Read the student profile. Identify the elements to include in his IEP based on the following categories.

1. Specific communication challenges
2. Social interaction goals
3. Academic support needs
4. Classroom and non-academic accommodation
5. Collaboration between parents and teachers
6. SLP therapy goals

Student Profile

Name: Nick Anderson

Age: 10 years old

Grade: 5th grade

Disability: developmental language disorder

Primary Concerns

Communication: difficulty articulating complex sounds, limited vocabulary, frequent grammatical errors, and challenges with sentence structure, especially in academic discussions.

Social interaction: hesitant to participate in group activities and discussions due to fear of being misunderstood, trouble understanding social cues, and non-verbal communication.

Academic progress: struggles with reading fluency and comprehension, affecting overall academic performance, and has difficulty following multi-step instructions.

Strengths and Interests

Strengths: strong understanding of maths concepts, enjoys hands-on science experiments, and follows classroom routines with minimal prompts.

Interests: loves reading about space, enjoys playing soccer, and is interested in computer games and coding.

Present Levels of Performance

Academics: can perform grade-level maths problems but needs assistance with reading and writing tasks.

Social/emotional: participates in group activities when encouraged but is often quiet. Needs support in expressing feelings and managing frustration.

Communication: able to form sentences but struggles with pronunciation and clarity, particularly with sounds like “sh,” “ch,” and “th.”

Designed based on: Sample IEP from Massachusetts Department of Elementary and Secondary Education.

URL: <https://www.doe.mass.edu/sped/improveiep/sample-iep.pdf> (Accessed 25.05.2024, 08:15h).

Activity 6. Examine the following phrases from the texts and explain their meanings and implications.

1. It is essential that SLPs configure school-wide programs that employ a continuum of service delivery models in the least restrictive environment for students with disabilities and that they provide services to other students as appropriate.

2. It is important to advocate for appropriate services and ensure that service delivery is meeting the intent of IDEA.

3. IEPs must include the present level of academic achievement and functional performance.

4. Nick is hesitant to participate in group activities and discussions due to fear of being misunderstood.

5. He struggles with reading fluency and comprehension, affecting overall academic performance.

6. The child can perform grade-level maths problems but needs assistance with reading and writing tasks.

7. Nick is able to form sentences but struggles with pronunciation and clarity, particularly with sounds like “sh,” “ch,” and “th.”

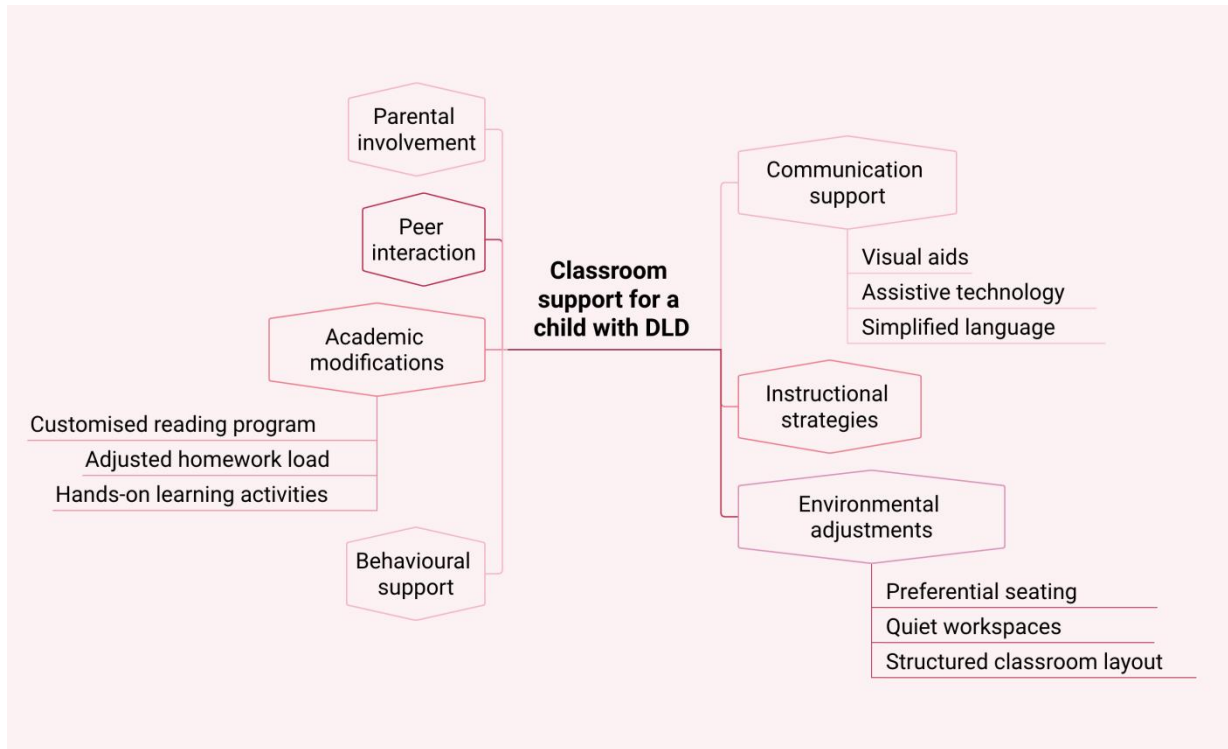
Activity 7. Using the Corpus of Contemporary American English (COCA), explore the frequency, collocations and contextual usage of the following phrases from the text. Complete the table with your findings.

Phrase	Frequency	Context	Co-occurring terms
Communication challenges			
Social interaction goals			
Academic support needs			
Classroom accommodation			
Non-academic accommodation			
Present level of performance			
Measurable annual goals			
Parental involvement strategies			
Supplementary aids			

Activity 8. Work in groups. Brainstorm terms related to classroom accommodations for a child with DLD. Discuss how terms relate to each other. Use arrows or lines to show connections:

e.g., peer support -> facilitates -> social interaction

Activity 9. Work in groups. Organise your ideas and expand the mind map below.



Activity 10. Study the information about the child's primary and comorbid conditions. Prepare notes for creating IEP.

Name: Sam Johnson

Age: 10 years old

Grade: 5th grade

Disability: ASD and associated communication difficulties

Primary Concerns

Communication: difficulty initiating and maintaining conversations, limited vocabulary, frequent echolalia, challenges with both expressive and receptive language.

Social interaction: avoids eye contact, trouble understanding social cues, difficulty forming and maintaining peer relationships, prefers solitary activities.

Academic progress: struggles with reading comprehension, especially inferencing and abstract concepts, difficulty with written expression, needs clear and concise instructions.

Behavioural concerns: sensory sensitivities, anxiety in new or unstructured environments, occasional meltdowns when routines are disrupted.

Present Levels of Performance

Academics: can perform grade-level maths with visual supports, struggles with reading comprehension and written tasks, benefits from structured and predictable learning environments.

Social/emotional: engages in parallel play but struggles with cooperative play, benefits from social stories and role-playing to understand social situations, needs support to manage anxiety.

Communication: uses short phrases and echolalia, benefits from visual supports and AAC devices, needs prompts to use functional language.

Activity 11. Based on your notes from Activity 10, write an IEP for Sam. Use the plan. Ensure that the IEP aligns with the student’s needs and includes input from teachers, parents and SLP.

IEP structure:

1. Student information
2. Present levels of performance
3. Annual goals
4. Special education and related services
5. Participation with non-disabled children
6. Accommodations and modifications

Activity 12. Work in pairs. Exchange your IEPs and review them. Use the template for writing feedback.

Clarity of goals	
Relevance of accommodations	
Alignment with student’s needs	
Measurability of the plan	

Unit 36. Counselling Techniques in SLP

Activity 1. Discuss in pairs.

1. How can counselling support the emotional well-being of clients with speech and language challenges?
2. Do you think building trust and rapport with clients can substantially improve the effectiveness of speech-language therapy sessions? Why?

Activity 2. Read information on care mapping resources provided by Alberta Health Services. How can creating a care map help families and healthcare providers better manage a child's care?

Care Mapping - a Tool for Families

A care map is a visual representation of a family's network for a child's care. Everyone can create their own care map. A care map can include people, professionals, places, and relationships involved in a child's care.

A care map can give families new insights about their own personal situation and their relationships. It supports communication with others about care and developing new skills.

Suggested items will not apply to everyone. It is recommended that each care map reflect the specific child and family.

Would creating a Care Map be helpful for you? If you answer "yes" to any of the following questions, you may find that creating a care map could be a useful tool.

For Families

Are you having difficulty navigating and understanding who does what within the health, community, and social care systems?

Are you overwhelmed by multiple appointments and care teams?

Are you feeling that you have multiple and/or competing priorities and not enough help?

Are you having trouble coordinating your child's care?

Are you and your child experiencing transitions from one service to another? (e.g. hospital to home, home to daycare, new to school, child to adult)

For Healthcare Providers

Do you understand the families and child's care situation and who is all involved in care?

Are there multiple clinics and care teams involved in the child's care?

Are there multiple systems involved in the child's care? (e.g. health, community, education, social)

Is the family experiencing challenges with navigating and coordinating their child's care?

Does the family need to make decisions about prioritising care?

Is the family or will the family experience various/multiple transitions?

*Source: Alberta Health Services. Care Mapping. URL:
<http://frcr.albertahealthservices.ca/family/pfcc/resources/care-mapping/>
(Accessed 26.05.2024, 10:00h).*

Activity 3. Discuss in groups.

1. How do care maps enhance the understanding of a child's care network for families and healthcare providers?

2. In what ways can care maps improve communication among different care team members and family members?

3. What challenges might families face when creating and maintaining a care map? Can these challenges be addressed in counselling sessions?

4. How can care maps assist in managing transitions between different services or care settings for a child with speech and language problems?

5. Why is it important to individualise care maps for each child and family?

6. What key elements should be included to reflect their unique needs?

Activity 4. Collaborative project. Design a detailed care map for a child with complex needs requiring extensive rehabilitation and multiple specialists.

Your group has been assigned to create a care map for a 10-year-old child named Danny, who has severe cerebral palsy and complex communication needs. Danny's care involves multiple specialists, including

physical therapists, occupational therapists, speech-language pathologists, and medical professionals. Your task is to create a detailed care map that includes all relevant people, professionals, places, and relationships involved in Danny's care.

Guidelines:

1. List family members, caregivers and any other people involved in the child's care.
2. Identify all medical and therapeutic professionals.
3. Map all relevant educational resources.
4. Include community and support services.
5. Add recreational activities suitable for the child.
6. Plan for managing care transitions and regular coordination between services.
7. Visualise the care map. Use a format like a booklet, poster, digital map or website.

Activity 5. Present the care plans in class.

Activity 6. Work in groups. Discuss how doing collaborative project helped in understanding the complexities of care coordination for children with speech and language challenges.

Activity 7. Arrange the following phrases for conducting a counselling session for parents of a child with a fluency disorder according to their function. Add more examples to the table.

1. Can you describe when you first noticed your child's stuttering and how it has progressed?
2. It's important to know that stuttering can vary greatly, and we will adapt our approach to your child's needs.
3. I understand your concerns about school. Let's talk about some strategies that can help.
4. How does your child react to their stuttering in different situations?
5. Let's start by setting some goals for our session. What would you like to focus on?

6. Stuttering is a common issue, and there are many effective strategies we can use to help.

7. Let's set some specific, achievable goals for therapy. What do you think would be a good starting point?

8. It's important to remember that progress can be gradual.

9. Our next session will focus on practical techniques you can use at home. Is there anything else you'd like to discuss before we finish?

10. Your involvement is crucial. We will provide you with strategies to use at home to support your child's progress.

Functions	Phrases
Beginning the counselling session	
Gathering information	
Providing information	
Addressing concerns	
Setting goals	
Explaining the importance of parental involvement	
Closing the counselling session	

Activity 8. Prepare for the role-play according to the guidelines in your role-play card.

Scenario

You are a speech-language pathologist conducting a counselling session for the parents of a child with stuttering. The goal is to address the parents' concerns, explain the therapy process, and set realistic goals for their child's progress.

Role card 1	Role card 2	Role card 3
Role: SLP Goal: greet parents, establish a comfortable environment. Describe the structure of the therapy sessions, techniques. Explain what to expect. Address parents' concerns and answer their questions. Show empathy. Explain the importance of parents' involvement. Together with parents set achievable goals for the child's therapy.	Role: mother Goal: share your concerns about your child's stuttering and how it influences his daily life. Ask questions about therapy and how you can support your child at home. Discuss your expectations.	Role: father Goal: back up your wife's concerns and ask more questions about the therapy and its possible impact on your son's daily life. Speak about your willingness to participate in the therapy process and ask for advice on how to best support your child. Express any doubts about the therapy outcomes.

Activity 9. Role-play the counselling session for parents. Use the phrases.

Activity 10. Discuss in groups.

1. How did creating a care map enhance your understanding of the importance of coordinated care?
2. Which counselling techniques did you find most effective in addressing parents' concerns during the role-play session?
3. How can the knowledge of care mapping and counselling strategies be applied in real-life scenarios?

Activity 11. Reflect on how counselling techniques can impact the emotional well-being of both the child with communication challenges and their family.

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MODULE 10
ADVANCING SPEECH-LANGUAGE PATHOLOGY
THROUGH TECHNOLOGY

In this module, you will practise:

Skills focus

Reading	Speech-Language Therapy Through Telepractice During COVID-19
Listening	Top Five Apps for Speech Therapy
Writing	A grant proposal cover letter
Speaking	Collaborative project: Developing a proposal for an AI-based tool for SLP practice Role-play: A school board meeting on the ethical and privacy concerns associated with AI in SLP

Language focus

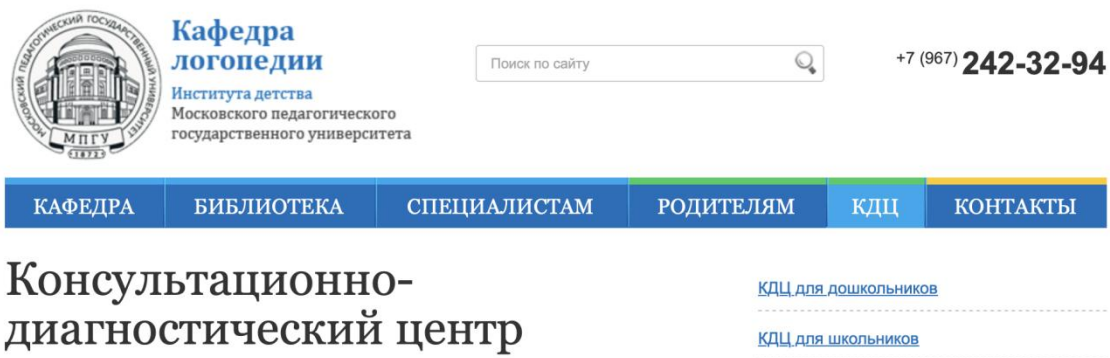
Professional terminology
Online session with a speech-language pathologist, face-to-face sessions, provision of medical and rehabilitation services using information and communication technologies, platforms for organising continuous education for healthcare workers, disruptions in the provision of medical services, checking internet connectivity before starting the session, choosing a quiet room with sufficient lighting, high-speed broadband connection, digital technologies, telepractice, telemedicine, teletherapy, pandemic, isolation, videoconferencing, confidentiality, etc.
Functional language for academic and professional writing
The Health City Speech and Language Center respectfully requests a grant of \$75,000 for our Virtual reality (VR) enhanced stuttering therapy pilot project. The VR enhanced stuttering therapy pilot project will enable us to pilot a one-year effort to determine if integrating VR technology can effectively provide immersive and innovative therapeutic interventions for individuals with stuttering disorders, etc.
Functional language for academic and professional speaking
In my opinion, the primary concern is..., according to recent studies..., contrary to what has been said..., a good example of this is..., we need to consider the potential risks of..., the ethical implications of this are..., etc.

Unit 37. Telepractice and Remote Intervention

Activity 1. Work in pairs. Discuss the questions.

1. How has the advancement of technology transformed the delivery of speech-language pathology services?
2. What are the potential benefits and challenges of conducting speech and language therapy remotely for both therapists and clients?.

Activity 2. Discuss the role and operations of the Consultation Diagnostic Centre within the Moscow State Pedagogical University's Department of Speech-Language Pathology.



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Source: <http://www.logo-mpgu.ru/kdc/> (Accessed 04.06.2024, 16:00h).

Activity 3. Fill in the blanks with the appropriate vocabulary terms from a provided list.

Remotely, hybrid service delivery, telemedicine, supervision, telecommunication, screening, distance education, telepractice

Telepractice is the delivery of services using [1] and Internet technology to [2] connect clinicians to clients, other health care providers, and/or educational professionals for [3], assessment, intervention, consultation, and/or education. Telepractice is an appropriate model of service delivery for audiologists and speech-language pathologists and may be the primary mode of service delivery or may supplement in-person services (known as [4]).

Technology may also be used for [5], mentoring, preservice, and continuing education. However, these activities are not included in ASHA's

definition of telepractice and are best referred to as telesupervision/distance supervision and [6].

ASHA adopted the term telepractice rather than the frequently used terms [7] or telehealth to avoid the misperception that these services are used only in health care settings. Other terms such as teleaudiology, telespeech, and speech teletherapy are also used by practitioners in addition to [8]. Services delivered by audiologists and speech-language pathologists are included in the broader generic term telerehabilitation (American Telemedicine Association, 2010).

*Source: American Speech-Language-Hearing Association. Telepractice.
URL: <https://www.asha.org/practice-portal/professional-issues/telepractice/> (Accessed 26.05.2024, 19:00h).*

Activity 4. Read the text. How has telepractice changed the accessibility and delivery of speech-language therapy services during the COVID-19 pandemic?

Speech-Language Therapy Through Telepractice During COVID-19

According to the American Speech and Language Association (ASHA), speech-language therapy refers to the therapy that is provided by speech-language pathologists (SLPs) or speech-language therapists (SLTs). The role of an SLP as a healthcare professional is to prevent, assess, diagnose, and treat speech-language disorders, communication disorders, and swallowing disorders and deliver aural rehabilitation to people who are deaf and hard of hearing. Individuals who suffer from severe disorders of expressive or language comprehension, such as autism spectrum disorder, may benefit from SLPs who are trained to provide Augmentative and Alternative Communication systems. The kinds of therapies that are carried out change depending on the age of the individuals being treated; for children, there are language intervention activities and articulation therapies, among others. Adults who develop speech and language disorders due to a stroke, injury, or other causes are treated with a variety of approaches, such as the modification of their accents and the performance of exercises for different tongue movements. Therefore, SLPs utilise a wide variety of speech-language therapy procedures and techniques in accordance with the

requirements of their patients. These procedures and techniques include aerosol-generating procedures (AGPs), of which the most widely used is “semi-occluded voice therapy exercises” (SOVTEs), which are designed to improve the patient’s voice resonance. A wide variety of speech therapy materials are utilised in the treatment of speech and language disorders. For instance, in the case of children, there are a variety of speech-language screeners, bell curve charts, and fun decks, among others. Adults practise things like flashcards, tongue twisters, mirror exercises, licking ice cream, and other similar activities.

After the WHO declared that COVID-19 had reached pandemic proportions, governments of different countries took a variety of preventative measures, including a complete lockdown. Because of this, speech therapy programs, which typically require face-to-face sessions, including touching the patient for some specific procedures or communicating with the help of some unique toys in the case of children, were severely disrupted. This was a problem because speech therapy programs typically require face-to-face sessions. The interruption of speech and language therapies had a negative impact not only on the patients but also on the patient’s families (especially in the case of children), as the parents of these children suffer physically, socially, psychologically, and most importantly economically due to the interruption. In the end, this resulted in inadequate parental care. In addition, children who have speech and language pathology should start the necessary therapy as soon as possible because as the child gets older, the neural plasticity decreases, which makes it even more challenging to treat the child. For this reason, the earlier the child starts therapy, the better the outcome. Moreover, persistent stuttered speech has been shown to have a significant impact on the physical, mental, social, and emotional well-being of both adolescents and adults. For these reasons, it has become absolutely essential for the current healthcare system to rapidly transform into a new model for the delivery of healthcare services so that patients can benefit from the change.

Before the pandemic, telepractice was not as commonly used as it is today. However, it is now the only solution for ensuring that continued and uninterrupted healthcare services are provided, which has ultimately led to the rapid adoption and expansion of telepractice. The process of providing clinical and rehabilitation services through the use of information and communication technology is referred to as telepractice. The term “telehealth” is frequently used as a synonym for telepractice. Telepractice is utilised not only for the purpose of diagnosing and treating a variety of

conditions, but it also has the potential to be used as a platform for the delivery of continued education to healthcare professionals working in a variety of settings. The synchronous, asynchronous, and hybrid types of telepractice are shown in Table 2.

Type of telepractice	Description
Synchronous	These are interactive services that occur in real time between the patient and clinician
Asynchronous	It includes the storing of materials that the patient or clinician can access at a later time, such as voice recordings and video recordings
Hybrid	It is the combination of both synchronous and asynchronous methods

TABLE 2: Types of telepractice

During the pandemic, many medical professionals started turning to telepractice services as a means of overcoming, in some way, the disruption that the pandemic caused in the delivery of healthcare services. Telepractice, which is easy to access and was given the name “attend anywhere web-based service” due to the fact that it allows patients to receive treatments regardless of their location, has thankfully proven to be the only method by which SLPs have been able to continue their sessions in order to limit the spread of infection and continue to provide ongoing care. Other benefits included limiting the geographical barriers, reducing the cost of travel, saving time, and thus serving a great purpose in situations where time was a significant issue. It has been found that conducting speech-language therapy sessions via telepractice is on par with running those sessions in person when it comes to the prevention, assessment, diagnosis, and management of various disorders. Patients who had participated in telepractice sessions reported feeling more satisfied with their care overall, and they noted that the sessions had a sedating and relaxing impact on their minds. Patients were given the same sense of comfort that they would receive from in-person visits, and they anticipated receiving more of these types of consultations in the future, even after the pandemic has been contained.

The telepractice sessions for the provision of speech-language therapy has shown to have greater overall satisfaction, which was rated using a five-point Likert scale in a study done in 2020. The response options ranged from excellent to poor, which included the options excellent, very good,

good, fair, and poor, with the majority of the responses falling under the excellent and very good categories. The satisfaction is particularly more among women as compared to men; studies suggest that since women have to take care of their children and have to perform other tasks, such as managing the house, so they found these telepractice services to be more beneficial as compared to the traditional healthcare service delivery model as they can easily show their child to an SLP without even going out of their home. It has been seen that two-thirds of women use this web-based health model on weekends and holidays when the hospitals are said to be closed, as stated in one of the reports. Meanwhile, telepractice sessions are being accepted by more number of people some of the important steps while setting up the session includes checking the Internet connectivity before starting the session, selecting a room that is quiet and has adequate lighting, using an external microphone for proper communication, speaking clearly during the session, using simple sentences that are brief and easy to understand by the patient, maintaining an appropriate posture in front of the camera so that the face is clearly visible, using subtitles so that the patient can understand when the Internet is slow.

In addition, there are many variations of the Health Insurance Portability and Accountability Act (HIPAA) or the Family Educational and Privacy Act (FERPA) - video conferencing programs that are easy to use and have been made available. Moreover, there have been many improvements in the provision of high-speed broadband connections, which have allowed everyone to use telepractice sessions efficiently and effectively. As a result, the benefits of telepractice can be summed up as: ease of access to medical care, increased levels of comfort and convenience, increased levels of confidentiality for patients and their families, and, last but not the least, a decreased likelihood of spreading infections. Although there are many benefits associated with telepractice, there are also some drawbacks that cannot be ignored. These drawbacks include lack of equipments, lack of proper skills among the SLPs, lack of adequate access to the Internet in some areas, and lack of access to hands-on skills (which means that it does not have the humaneness that builds a bond between the patient and clinician), and other barriers include reimbursement policies.

It has also been discovered that a lack of familiarity with digital technology is one of the primary reasons for the decline in the utilisation of

telepractice. It was found that the overall efficacy of providing telepractice decreases as a person's age increases. In addition, it was discovered that people over the age of 65 have a digital literacy rate that is 10 percentage points lower than that of younger people. Certain patients, particularly in Croatia, found that face-to-face therapy sessions were more effective than telepractice in achieving their treatment goals. There have been a few steps taken to reduce these limitations; for instance, in one of the studies, distributions of lesson kits, namely, "MED-EL KITS," were done. These kits can be easily downloaded by the practitioner in a PDF format directly from MED-EL Professionals Blog. The major problems reported by clients receiving telepractice were a lack of proper educational skills, reimbursement, and no proper access to the Internet. After going through these kits, the SLPs felt more confident while providing the telepractice session, and also, the patient's level of satisfaction increased to a significantly higher level. With regard to reimbursement, numerous organisations, such as the American Occupational Therapy Association (AOTA), American Physical Therapy Association (APTA), ASHA, and American Telemedicine Association (ATA) are working tirelessly to urge the government to pay an equivalent sum to all telepractice service providers.

To ensure the sustainability of speech-language therapy via telepractice, several organisations, namely, the AOTA, APTA, ASHA, and ATA, have joined hands with one another during the Telemedicine Awareness Week (TAW) to ensure that telepractice services sustain even after the COVID-19 pandemic. They focused on certain specific priorities, such as not placing any limitations on the provision of telepractice services based on the type of provider and also encouraging the independence of providers, supporting the bipartisan Telepractice Access Act, which would allow us to expand the type of practitioners that would be eligible to provide a telerehabilitation service and also allowing the providers to become permanently authorised persons to provide telepractice services under the Medicare program. Some other priorities included insisting the government not to impose any location restrictions on patients, allowing them to have convenient access to the service wherever they are, including at home, ensuring that all providers of telepractice services receive the same amount of money for their services.

It is imperative that these steps should be taken in order to avoid the “telepractice cliff” for speech therapy services. If these steps are not taken within the appropriate time, then telepractice would surely come to an end, which is something that should be avoided at all costs as telepractice has become a lifeline for a great number of people.

Source: Guglani I., Sanskriti S., Joshi S.H., Anjankar A. Speech-Language Therapy Through Telepractice During COVID-19 and Its Way Forward: A Scoping Review. Cureus. 2023. № 15 (9). P.8.

Activity 5. Read the text and complete the table.

	Statements	True	False
1	The widespread adoption of telepractice during the COVID-19 pandemic was crucial for maintaining uninterrupted speech-language therapy.		
2	Telepractice was the predominant method for delivering speech-language therapy services prior to the COVID-19 pandemic.		
3	A notable benefit of telepractice highlighted in the text is the reduction of logistical barriers and travel expenses for patients.		
4	Patient satisfaction with telepractice sessions was generally lower than with in-person visits, primarily due to technical issues.		
5	The text indicates that telepractice is particularly advantageous for older adults due to their high digital literacy and comfort with technology.		

Activity 6. Work in pairs. Discuss why the following things were mentioned in the text.

1. Telepractice
2. Synchronous telepractice
3. Asynchronous telepractice

4. Hybrid telepractice
5. Semi-occluded voice therapy exercises (SOVTEs)
6. HIPAA
7. FERPA
8. Patient satisfaction

Activity 7. Choose the topics to talk about. Prepare your ideas, then work in pairs and share your perspectives.

1. Compare the benefits and drawbacks of telepractice and in-person speech therapy sessions.
2. Identify and discuss the main challenges faced by both therapists and patients when using telepractice for speech therapy.
3. Share your thoughts on how telepractice might develop and its potential long-term impacts on healthcare delivery.
4. Discuss the importance of patient confidentiality and data security in telepractice sessions.
5. Discuss methods to ensure compliance with regulations like HIPAA.

Activity 8. Translate each Russian term into its English equivalent. Provide an explanation of the equivalence, similar to the example.

Russian term	English term
телепрактика	telepractice

Equivalence explanation: both terms refer to the delivery of healthcare services using telecommunications technology.

One-word terms:

телепрактика, телемедицина, телетерапия, профилактика, диагностика, оценка, лечение, пандемия, изоляция, нейропластичность, консультация, видеоконференция, конфиденциальность, синхронная (модель), асинхронная (модель), гибридная (модель).

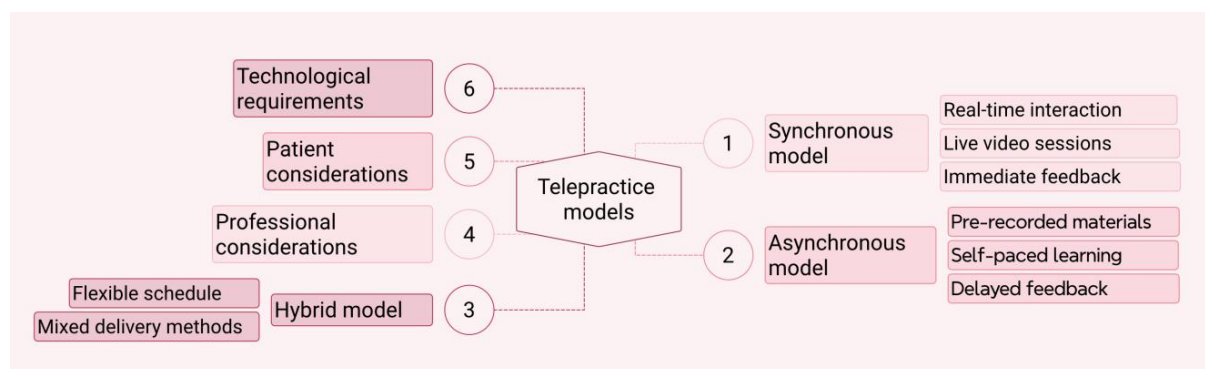
Terminological units:

онлайн-занятие с логопедом, реабилитация глухих и слабослышащих людей, упражнение с зеркалом, ряд превентивных

мер, очные занятия, предоставление медицинских и реабилитационных услуг с использованием информационно-коммуникационных технологий, платформы для организации непрерывного образования работников сферы здравоохранения, перебои в оказании медицинских услуг, успокаивающее и расслабляющее воздействие на психику пациентов, проверка подключения к Интернету перед началом сеанса, выбор тихой комнаты с достаточным освещением, высокоскоростное широкополосное соединение, цифровые технологии.

Activity 9. Analyse the fragment of the mind map for telepractice. Answer the questions.

1. How does the synchronous model ensure immediate feedback during speech-language therapy?
2. What are the advantages of the asynchronous model for patients with busy schedules?
3. How does the hybrid model combine the benefits of synchronous and asynchronous methods?
4. What strategies can SLPs use to ensure patients are comfortable and familiar with telepractice technology?



Activity 10. In groups choose two categories from the mind map above and do research. Compile your findings and integrate them into the existing map.

Activity 11. Use the Corpus of Contemporary American English (COCA) to analyse the lexico-grammatical profiles of the terms. Complete the table.

Term	POS	Collocations	Context
Telepractice			
Telehealth			
Teletherapy			
Telemedicine			
Telecommunication			

Activity 12. Consult the following sources to analyse the increase in the usage frequency of terms *telemedicine*, *telehealth* and *telepractice* during the COVID-19 pandemic. Complete the table.

Source	Term	Pre-pandemic frequency	Frequency during pandemic	Notable trends
COCA				
Google trends				
PubMed				
Web of Science				
Scopus				

Unit 38. Enhancing Therapy Results with Child-Friendly Apps

Activity 1. Work in groups. Discuss the questions.

1. How can digital tools complement traditional speech-language therapy techniques?
2. What features should an app have to be effective in supporting speech-language therapy for children?

Activity 2. Use reliable sources to find definitions for the following terms related to speech-language therapy apps for children.

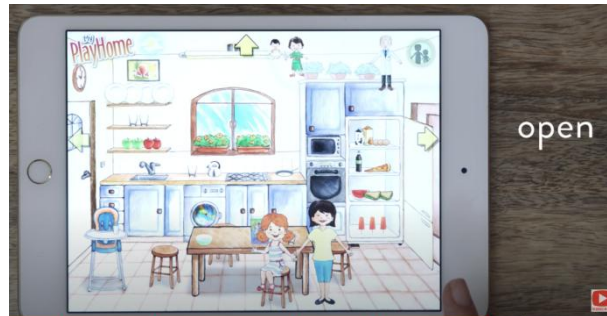
Term	Definition	Source
Augmentative communication		
Articulation therapy		
Language intervention		
Interactive apps		
Core vocabulary		
Modelling		
Social pragmatic skills		
Inferencing		
Action verbs		
Speech-language screeners		

Activity 3. Work in pairs. Complete the K-W-L chart by listing what you already know about the use of apps in SLP and noting your questions on the topic. After completing the unit, fill in what you have learnt in the third column.

K-W-L chart on language disorders

K - Know	W - Want to know	L- learnt

Activity 4. Watch the video “Top Five Apps for Speech Therapy.”⁴ How do the apps mentioned in the video enhance communication and language development for children during interactive play?



Activity 5. Work in pairs. Compare your ideas and discuss.

1. How do the apps mentioned in the video help improve specific speech-language goals for children?
2. What techniques can be used to keep children engaged and focused while using these apps for speech therapy?
3. What are the benefits of using technology in speech therapy sessions?
4. How can parents effectively use these apps at home to support their child’s speech therapy goals?

⁴ URL: <https://youtu.be/accTgqJ9jTo?si=0GO0Tt9ApY7K4T6e> (Accessed 26.05.2024, 10:00h).

Activity 6. Watch the video again and choose two letters A-E that the speaker mentions about the practical applications and user experiences of speech therapy apps.

The benefits of using apps in speech-language therapy include ...

A. Apps provide an engaging and motivating way for children to practise communication skills.

B. Most children can learn to communicate effectively using apps without additional guidance.

C. Apps are cost-effective and eliminate the need for professional intervention.

D. Interactive apps can help target specific speech-language goals through fun activities.

E. Apps enable consistent practice, which is crucial for progress in speech therapy.

Children benefit from interactive speech therapy apps because ...

A. These apps often include real-time feedback, helping children improve their skills.

B. The apps can replace traditional therapy sessions entirely.

C. Visual and interactive elements keep children more engaged in the therapy process.

D. Apps reduce the need for parental involvement in speech therapy.

E. Apps provide a structured environment that helps children practise regularly.

The practical applications of speech therapy apps include ...

A. Enhancing vocabulary and language development through interactive games.

B. Providing an alternative to face-to-face therapy sessions for all therapy needs.

C. Facilitate social skills by using characters and scenarios in the apps.

D. Reducing the need for any parental guidance during the therapy sessions.

E. Offering a structured environment for consistent practice and progress tracking.

Activity 7. Work in pairs. Discuss why the following things were mentioned in the video. Watch again and check your answers.

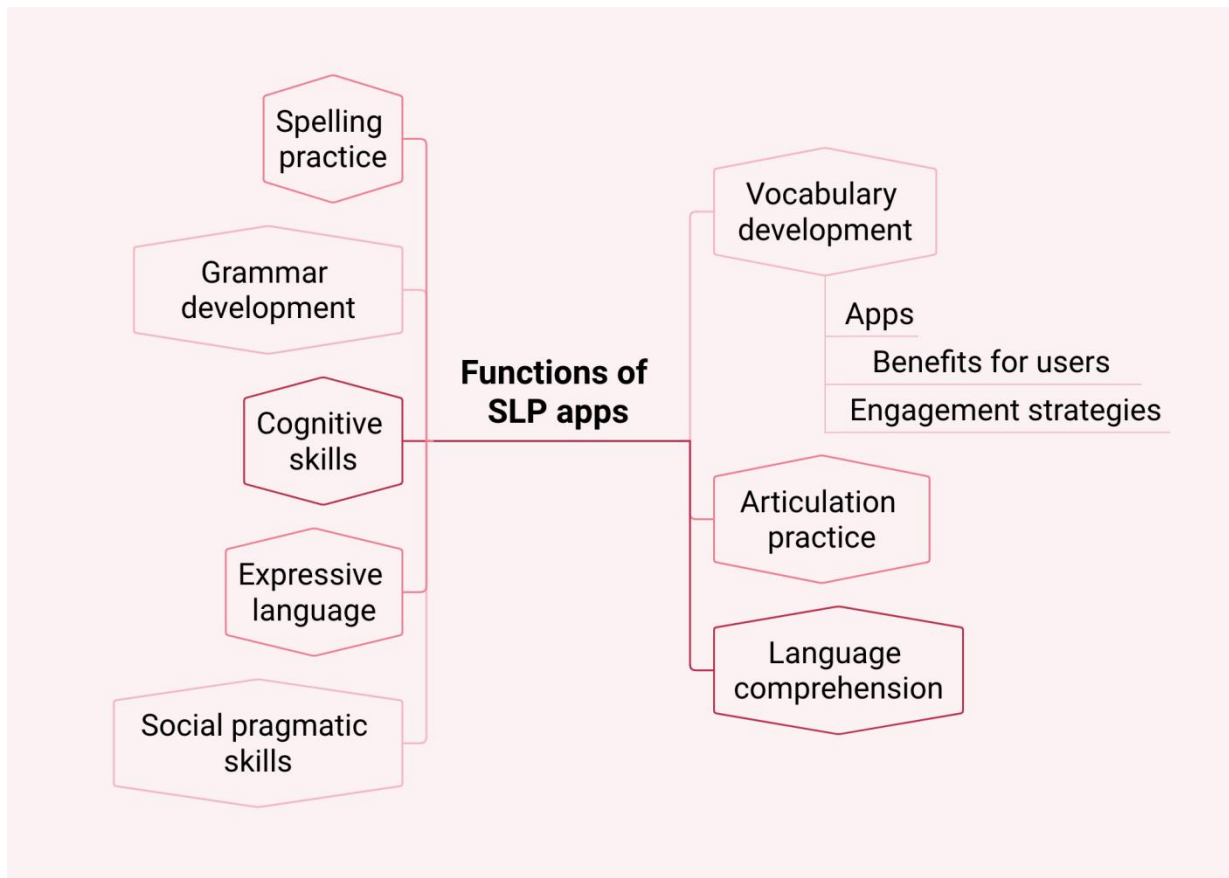
1. Interactive experience
2. Core words
3. Social pragmatic skills
4. Impulse control
5. Non-verbal body language
6. WH-questions
7. Action words
8. Core word vocabulary

Activity 8. Complete the table with the information about functions and benefits of the apps presented in the video.

App	Function	Benefits for users
Road trip	Target core vocabulary	Engages in interactive learning, helps with vocabulary expansion
Toca kitchen		
Peekaboo barn		
POG		
Play home		

Activity 9. Work in pairs. Analyse the fragment of the mind map. Answer the questions.

1. What aspects of speech and language development are currently missing from the mind map?
2. Which existing categories on the map seem most critical for enhancing speech-language therapy through apps?
3. What sources will you use for researching the apps that support different aspects of speech and language development?



Activity 10. Use reliable sources to identify apps that support different aspects of speech and language development. Integrate your findings into the mind map.

Activity 11. Discuss in groups.

1. Which app from the list do you believe has the most significant potential impact on a child's communication skills? Why?
2. How do the functions of different apps compare in terms of usability and effectiveness for speech-language pathology?

Activity 12. Reflect on how the knowledge acquired in this unit can be practically applied in your professional career in speech-language pathology.

Unit 39. SLP 2.0: The Power of VR Integration



Source: URL: <https://pragmatica.ca/>

Activity 1. Discuss in pairs.

1. How can VR be used to enhance traditional speech-language therapy techniques?
2. What VR applications are currently used in speech-language pathology?

Activity 2. Read the excerpt from the article. How is VR used to enhance speech therapy for individuals who stutter?

Virtual Reality Technology and Speech Analysis for People Who stutter

Virtual reality (VR) is a form of human-computer interaction where users engage in a computer-generated three-dimensional world. VR systems include hardware (e.g., computer workstations, sensory displays, tracking systems) and software (e.g., 3D modelling, VR simulation). Identified as an emerging technology, VR has gained attention in medical and non-medical fields, such as rehabilitative therapy, psychology, and education.

Several studies have shown positive results from using VR for rehabilitation. VR helps individuals regain physical or cognitive abilities and reduces fear-related negative feelings without relying on internal imagery. For example, VR can help individuals overcome a fear of public speaking by creating realistic and controllable environments.

Stuttering, defined by Guitar, is a complex communication disorder with affective, cognitive, and behavioural components, including sound repetitions and avoidance behaviours. It is characterised by interruptions in

the flow of speech, such as whole-word repetitions, part-word repetitions, and audible prolongations. Stuttering also involves avoidance, fear, and anticipation, making it a multifactorial disorder.

Stuttering has various causes, including developmental, psychological (e.g., anxiety, fear of public speaking), and physical or brain injuries. It negatively affects quality of life, self-respect, and induces anxiety, making communicative situations difficult. A strong relationship exists between anxiety and stuttering, with many individuals also having social phobia. Proper assessment and treatment can improve their quality of life.

The treatment and assessment of stuttering are challenging for speech-language pathologists (SLPs). Manual assessment is laborious and subjective. VR technology addresses these challenges by providing accurate, simultaneous, and objective speech assessment. VR can assist SLPs in better management sessions and help individuals desensitise their stuttering and associated anxiety. Various communicative situations are used in therapy to help individuals overcome their fear and anxiety.

This study investigates the benefits of innovative VR and automatic speech recognition techniques in speech therapy. VR combined with speech analysis serves as an advanced tool for assessing and treating stuttering, particularly in the transfer and maintenance phases. The findings support evidence-based practice for VR technology, helping individuals confront communicative situations more confidently.

Compiled from: Alnafjan A., Alghamdi N., Almudhi A. Virtual Reality Technology and Speech Analysis for People Who Stutter. EMITTER International Journal of Engineering Technology. 2021. № 9. Pp. 326-338.

Activity 3. Discuss in pairs.

1. How does VR technology help in desensitising individuals who stutter to their fear of specific communication situations?
2. What are the key challenges in manually assessing stuttering? How can VR technology address these challenges?
3. In what ways can automatic speech recognition techniques, when combined with VR, enhance the treatment and assessment of stuttering?

4. How does anxiety interplay with stuttering? How can VR interventions potentially address this relationship?

5. What specific benefits does VR offer in the transfer and maintenance phases of stuttering therapy compared to traditional methods?

Activity 4. Read the grant proposal cover letter. What is the main objective of this letter?

John Doe, PhD
Program Officer
Health Innovation Foundation
1234 Medical Plaza
Health City, AB 67890

Dear Dr Doe,

The Health City Speech and Language Center respectfully requests a grant of \$75,000 for our Virtual reality (VR) enhanced stuttering therapy pilot project.

As the leading speech and language centre in the region, serving over 500 individuals annually, we are committed to pioneering advanced therapeutic methods to meet the diverse needs of our clients. The VR enhanced stuttering therapy pilot project will enable us to pilot a one-year effort to determine if integrating VR technology can effectively:

1. provide immersive and innovative therapeutic interventions for individuals with stuttering disorders;
2. enhance the diagnostic and treatment capabilities of our speech-language pathologists, allowing for more accurate and personalised care.

Our board of directors is highly enthusiastic about this program and eager to initiate it, aiming to establish our centre as a leader in cutting-edge speech and language therapies. Should the program prove successful at the end of the pilot year, our board has committed to incorporating a portion of the project's annual expenses into our regular operating budget, ensuring the program becomes a staple of our core services.

Through this project, the Center will become a primary referral source for speech and language therapy among local healthcare providers, educational institutions, and community organisations. We will also accept

referrals from any agency within our service area, broadening access to innovative therapy for individuals with stuttering disorders.

Thank you for considering our request. I will follow up with you next week to address any questions you might have and to explore the possibility of discussing our proposal further. Meanwhile, should you have any immediate questions, please feel free to contact Sarah White, our Director of Development, at (555) 123-4567, x123, or swhite@hcslc.org.

Sincerely,

Emily Johnson

Executive Director

*Designed based on: LiveAbout. How to Write a Cover Letter for Your Grant Proposal. URL: <https://www.liveabout.com/how-to-write-a-cover-letter-for-your-grant-proposal-2501949>
(Accessed 28.05.2024, 12:00h).*

Activity 5. Work in pairs. Discuss why the following things were mentioned in the cover letter.

1. Stuttering therapy
2. Immersive therapeutic interventions
3. Diagnostic and treatment capabilities
4. Cutting-edge therapies
5. Innovative therapy
6. Personalised care
7. Primary referral source
8. Community organisations

Activity 6. Work in groups. Analyse the structure and key components of the grant proposal cover letter. Answer the questions.

1. How does the writer establish the credibility of the Health City Speech and Language Center?
2. Why is it important to clearly state the amount and purpose of the funding request early in the letter?
3. How does the writer justify the need for the VR enhanced stuttering therapy pilot project?
4. What specific goals does the project aim to achieve?

5. How does the letter convey the board's enthusiasm and commitment to the project?

6. What steps does the writer propose for following up on the grant request?

Activity 7. Examine the following phrases from the article and explain their meanings and implications.

1. The Health City Speech and Language Center respectfully requests a grant of \$75,000 for our Virtual reality (VR) enhanced stuttering therapy pilot project.

2. The VR enhanced stuttering therapy pilot project will enable us to pilot a one-year effort to determine if integrating VR technology can effectively provide immersive and innovative therapeutic interventions for individuals with stuttering disorders

3. Our board of directors is highly enthusiastic about this program and eager to initiate it, aiming to establish our centre as a leader in cutting-edge speech and language therapies.

4. Should the program prove successful at the end of the pilot year, our board has committed to incorporating a portion of the project's annual expenses into our regular operating budget, ensuring the program becomes a staple of our core services.

5. Through this project, the centre will become a primary referral source for speech and language therapy among local healthcare providers, educational institutions, and community organisations.

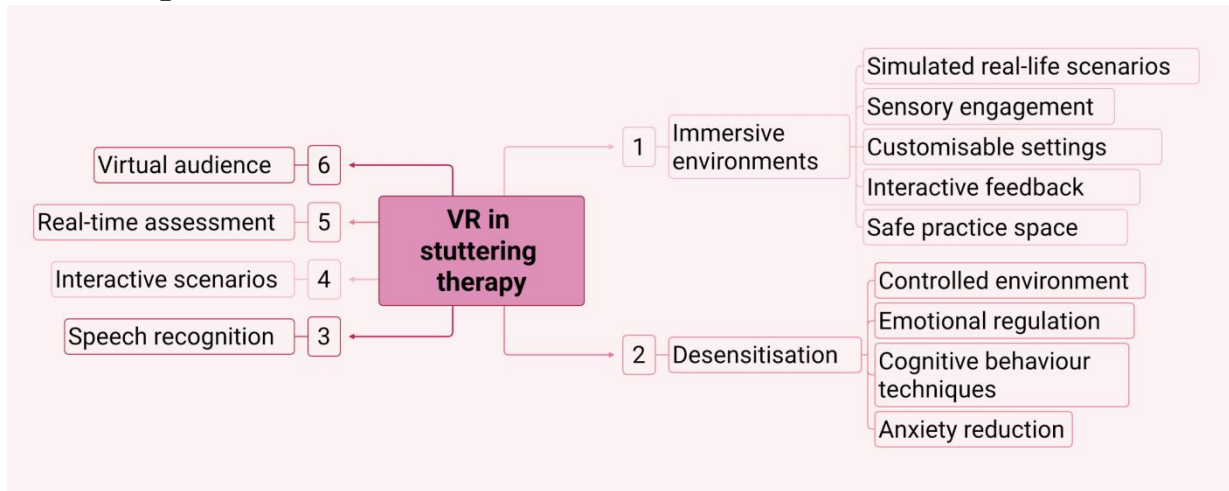
6. I will follow up with you next week to address any questions you might have and to explore the possibility of discussing our proposal further.

7. Meanwhile, should you have any immediate questions, please feel free to contact Sarah White, our Director of Development, at (555) 123-4567, x123, or swhite@hcslc.org.

Activity 8. Work in groups. Brainstorm terms related to using VR in treating stuttering. Discuss how terms relate to each other:

e.g., desensitisation → decreases → fear of public speaking

Activity 9. Work in groups. Organise your ideas and expand the mind map below.



Activity 10. Write a grant proposal cover letter for a project integrating VR into a chosen therapy area, using the provided plan.

1. Introduction
2. Project description
3. Funding request
4. Goals and objectives of the project
5. Justification of need in the project
6. Board's commitment
7. Follow-up steps

Activity 11. Review 1-2 grant proposal cover letters of other students. Use the following template to provide your feedback.

Clarity and organisation	
Justification of need	
Goals and objectives	
Linguistic accuracy	
Overall impression	

Unit 40. AI-Based Tools in Speech-Language Pathology

Activity 1. Discuss in pairs.

1. How can AI enhance the effectiveness and efficiency of speech-language pathology practices?
2. Is there a potential risk that AI might replace speech-language pathologists in the future?

Activity 2. Use reliable sources to find definitions for the following terms related to speech-language therapy apps for children.

Term	Definition	Source
Speech recognition		
Voice analysis software		
Natural language processing		
Real-time feedback systems		
Automated progress tracking		
Automated screening tools		
Digital therapeutics		
Virtual assistant		
Machine learning		
Generative models		
Neurotechnology		
Neurofeedback		

Activity 3. Read the text. What are the benefits and limitations of integrating AI into speech-language pathology practices?

The Role of AI in Speech-Language Pathology

As technology continues to evolve, the use of artificial intelligence (AI) in a professional capacity within the healthcare system is on the rise. As such, it is warranted to consider how artificial intelligence could be integrated into a speech therapist's practice.

AI has historically been around since 1950, accompanying it are various definitions of what it actually is. According to McKinsey and Company (2023), "Artificial intelligence (AI) is a machine's ability to perform the cognitive functions we associate with human minds, such as perceiving, reasoning, learning, interacting with an environment, problem solving, and even exercising creativity." Alternatively defined with a healthcare perspective; AI can be defined as "... a statistical approach that harnesses the power of data to create tools that can enhance our clinical practice and promote the health and success of our clients" (Liss and Berisha, 2020).

You may interact with AI more frequently than you think. Using Siri, Google Maps, Alexa and ChatGPT for example, use machine learning algorithms to answer questions and provide information in a moment's notice... or within one or two repetitions.

AI has been present in the speech and language field in some capacity for many years. For example, automatic speech recognition (ASR) is an AI tool that allows us to dictate session notes and book sessions into a calendar. Reducing administrative task time leads to more time available for direct client care.

Intelligent assistive technologies and Augmentative and Alternative Communication (AAC) are algorithms and devices that compensate for communicative and cognitive impairments. Automatic Speech Recognition (ASR) systems can be trained to recognise a specific set of words that may be challenging for the average person to decipher. The system can then display what has been said visually (text) or verbally (synthesised speech). Most basic AI systems require the user to know how to spell or know the phrase they want to say.

Advancements are focused on providing a bank of common phrases and words to provide a better ‘starting point’.

Voice banking is another way AI can support communication. This technology is often used with populations who may eventually lose their ability to verbally communicate, such as with some stages of ALS or Parkinson’s Disease. The person will periodically record their speech using a web-based platform. These voice samples will be used to generate synthesised speech which more closely resembles the person’s voice, compared to a regular text-to-speech software. Our vocal qualities are part of our identity, thus this system allows the person to maintain congruence between themselves and how they are perceived by others.

Better Speech has developed a generative AI-powered Speech Therapist (“Jessica”) that has continuously advancing, “...speech-recognition and language-processing abilities that can assess speech patterns, identify areas for improvement, and deliver targeted interventions,” (Ortiz, 2023). The company also notes, “our software is designed to augment our service and serve as a practising tool, not to replace our speech therapists”.

The use of AI may support more efficient, accurate and reliable assessment administration or interpretation and be able to suggest personalised treatment plans (Liss and Berisha, 2023). This support may lead to less human error and more accurate analysis of communication abilities and progress, which reduces the current problem of test reliability. AI can also detect changes in speech and communication and can provide real-time feedback within your home, which will support generalisation of skills and continuity of care (Jaime Van Echo, Matt Zbrog, 2023).

Other AI systems such as Cognixion One, can detect signals from users’ brain waves associated with language and turn these thoughts into speech via a wearable device (Miller, 2023).

The AI Institute for Exceptional Education recently received a 5-year grant to generate an AI Screener that will, “... listen to and observe children in the classroom, collecting samples of children’s speech, facial expressions, gestures and other data. It will create weekly summaries of these interactions that catalogue each child’s

vocabulary, pronunciation, video snippets and more” (Penn State, 2023). Generated summaries may help teachers monitor speech and language abilities or if warranted, suggest a formal assessment be conducted by a registered Speech-Language Pathologist. A significant challenge currently facing is that there is more need than can be supported, leading to lengthy waitlists. Early intervention is a key principle in promoting faster progress and more dramatic results (Kay-Raining Bird, Cleave, Trudeau, Thordardottir, Sutton, and Thorpe 2012).

Limitations of AI in speech therapy:

1. It is crucial that personal health information is stored in a manner consistent with regulatory standards.
2. As great as AI is, it’s not 100% accurate. For example, summaries it provides may not accurately reflect what had been discussed in a session.
3. Feedback provided by AI may not be considerate of diverse dialects, accents and speech styles.
4. AI can only be as smart or effective as the quality of data you provide it.
5. AI has a limited ability to express and feel empathy or compassion, two necessary qualities that support a holistic and person-centred approach.

AI systems often improve the more we use them, in both accuracy and ease of use. As noted by Liss and Berisha (2020), “SLPs will need to understand AI clinical tools, know their limitations, and employ them judiciously as they become available.” The speech therapist must always inform the client that AI may be used and allow them to agree or disagree to the use of AI at any point in time. Although the future of AI is exhilarating and appealing, it is important to remember that AI tools are meant to complement human therapists rather than replace them.

Source: Toronto Speech Therapy. (2023). The Role of Artificial Intelligence in Speech Therapy.

URL: <https://www.torontospeechtherapy.com/blog/2023/the-role-of-artificial-intelligence-in-speech-therapy> (Accessed 29.05.2024, 12:05h).

Activity 4. Discuss in groups.

1. How can ASR systems enhance the effectiveness of speech-language therapy sessions?
2. What are the potential benefits of voice banking for individuals who may lose their ability to verbally communicate?
3. How might AI-powered speech therapists, like “Jessica” from Better Speech, complement human therapists in providing targeted interventions?
4. What ethical considerations should be considered when incorporating AI into speech-language therapy?
5. How can AI tools help address the current challenges in speech-language pathology?
6. In what ways can AI technologies, like Cognixion One and the AI Screener transform the assessment and treatment of speech and language disorders in educational settings?

Activity 5. Collaborative project. Develop a proposal for an AI-based tool for SLP practice.

You are part of a team of speech-language pathologists and technology developers engaged in a project aiming to create an innovative AI-based tool to enhance speech-language therapy services. Your goal is to design a proposal for this tool, detailing its features, benefits, and implementation plan.

Guidelines:

1. Identify the current challenges in speech-language therapy that could be addressed by AI.
2. Brainstorm ideas for an AI-based tool, considering different aspects of speech and language disorders.
3. Define the tool’s purpose and features. Outline the benefits of the tool for both therapists and clients. Provide rationale for why this tool is necessary and how it will enhance current therapy practices.
4. Develop a plan for implementing the tool in an SLP practice.
5. Create a detailed budget for developing and implementing the tool.
6. Create a presentation summarising your proposal, including visuals and key points.

Activity 6. Present your proposal to the class. The presentation should last 10 minutes, followed by a Q&A session.

Activity 7. Arrange the following phrases according to their function. Add more examples to the table.

1. In my opinion, the primary concern is...
2. According to recent studies...
3. Contrary to what has been said...
4. A good example of this is...
5. We must consider the potential risks of...
6. The ethical implications of this are...
7. Privacy is a major concern because...
8. It's crucial to remember that...
9. In the end, what matters most is...
10. One potential solution is...
11. While that may be true, we also need to consider...
12. That's a good point, and I would add..

Functions	Phrases
Introducing an argument	
Supporting an argument	
Disproving an argument	
Providing examples	
Expressing concerns	
Addressing ethical issues	
Emphasising a key point	
Proposing a solution	

Activity 8. Prepare for the role-play according to the guidelines in your role-play card.

Scenario

The school board is considering integrating AI-based tools into the speech-language pathology practice. The decision has provoked a debate among staff and parents. Take part in a school board meeting and present your perspectives (according to your role) on the ethical and privacy concerns associated with AI in SLP and discuss potential solutions.

Role card 1	Role card 2	Role card 3
<p>Role: SLP Goal: highlight how AI can help in accurate assessments and developing personalised treatment plans. Emphasise the complementary role of AI in SLP practice.</p>	<p>Role: parent of a child with communication problems Goal: express concerns about how AI will handle sensitive information about their child. Ask specific examples of how AI has improved therapy outcomes. Request information on how the school plans to protect student data.</p>	<p>Role: principal Goal: discuss AI's potential to reduce workload and enhance therapy. Address the importance of maintaining student privacy and data security. Propose a pilot program to evaluate AI tools before full implementation.</p>

Role card 4	Role card 5	Role card 6
<p>Role: AI expert Goal: describe how AI can improve therapy. Offer technical solutions for privacy protection. Reassure stakeholders that AI tools are designed to support, not replace,</p>	<p>Role: student receiving SLP services Goal: describe how current therapy sessions are helping you and what improvements are needed. Discuss any concerns about using AI in therapy. Provide</p>	<p>Role: school methodologist Goal: discuss how AI tools can be integrated into the existing curriculum and therapy programs. Address any potential disruptions to teaching methods and</p>

therapists.	feedback on how AI could potentially hinder you.	propose solutions. Highlight the importance of training staff to effectively use AI tools.
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Activity 9. Role-play the school board meeting on the ethical and privacy concerns associated with AI in SLP. Use the phrases.

Activity 10. Discuss in groups.

1. Can AI tools complement the work of speech-language pathologists without replacing their essential human touch? How?
2. What ethical and privacy concerns arise with using AI in SLP? How can these concerns be effectively addressed?
3. How can AI-based tools be designed to be more inclusive and sensitive to diverse dialects, accents and speech styles?
4. What future developments in AI technology can you predict?

Activity 11. Reflect on how AI can enhance your diagnostic and therapeutic capabilities.

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MODULE 11
**RESEARCH AND EXPERIMENTAL DESIGN IN SPEECH-
 LANGUAGE PATHOLOGY**

In this module, you will practise:

Skills focus

Reading	Clinical Quality Improvement and Quality Improvement Research
Listening	Evidence-Based Practices for Treating Specific Speech and Language Disorders
Writing	Methodology section of master's thesis
Speaking	Collaborative project: A detailed application proposal for a mentoring program to support master's thesis research Role-play: A conflict resolution mediation session between the mentor and mentee

Language focus

Professional terminology
Clinical research design, evidence-based practice, quality improvement, systematic approach, data analysis, clinical assessment, interdisciplinary collaboration, research methodology, quality standards, project management, intervention planning, training and development, professional development, patient safety, quality of care, process management, outcome evaluation, clinical research, healthcare communication, quality monitoring, scientific method, non-experimental design, quasi-experimental design, randomised controlled trial, etc.
Functional language for academic and professional writing
Statistical techniques are not magical or mysterious; rather, they are tools designed to quantify scientific evidence in various ways. Our focus however, is primarily on frequentist hypothesis testing using maximum likelihood, which is at the core of most applied science, as well as introductory statistics curricula. Effect sizes quantify the magnitude of a treatment effect, offering insight into its practical significance, etc.
Functional language for academic and professional speaking
Can you help me understand what specific expectations you feel were not met? I felt that the feedback on my thesis draft was not detailed enough, etc.

Unit 41. Relevance and Quality of Research in SLP

Activity 1. Work in pairs. Answer the questions.

1. What challenges have you faced or anticipate facing when designing your own research for your master's thesis in speech-language pathology?
2. How do you plan to ensure the quality and relevance of your research design in your master's thesis?

Activity 2. Categorise terms related to research design in SLP. Some terms may fit into more than one category.

Terms: cross-sectional study, hypothesis, random sampling, survey, longitudinal study, qualitative data, experiment, quantitative data, control group, triangulation, independent variable, informed consent, case study, dependent variable, confidentiality, experimental group, peer review, data coding, literature review, statistical significance, pilot study, cultural sensitivity.

Types of research	Research methodology	Data collection techniques	Data analysis	Validity of research	Ethical considerations

Activity 3. Use reliable sources to find accurate definitions for the following terms.

	Terms	Definitions
1	Research paradigm	
2	Cross-sectional study	
3	Mixed-methods research	
4	Single-subject design	
5	Randomised controlled trials	
6	Meta-analysis	
7	Risk-benefit analysis	
8	Factor analysis	

Activity 4. Read the text. How do QI practices enhance the quality and relevance of research in speech-language pathology?

Clinical Quality Improvement and Quality Improvement Research

In today's healthcare environment, there is an ever-increasing focus on the quality of care delivered by providers of all clinical services. Insurers, accreditors (e.g., the Joint Commission, formerly referred to as the Joint Commission on Accreditation of Healthcare Organisations), and the Centers for Medicare & Medicaid Services (CMS) are all requiring objective proof of the quality of services. Recently, the CMS Quality Payment Program transitioned to no longer requiring participation from speech language pathologists (SLPs) and audiologists. However, CMS has announced that possible expansion to include our professions may occur in the future (Physicians Advocacy Institute, 2018). In anticipation of such requirements, SLPs and audiologists should be prepared to design and implement quality improvement (QI) measures. The American Speech Language-Hearing Association (ASHA) has recognised the importance of providing members with information regarding QI practices. The ASHA website contains useful QI resources and information for SLPs and audiologists. Noting the importance of measuring quality of service, the ASHA information highlights that "providing quality care is critical to both receiving reimbursement for that care and positive outcomes of services" (ASHA, n.d.). The importance of QI activities is not relevant only in the health care setting. Clinicians in school settings need to continually demonstrate the added value of their services in the larger context of academic outcomes. QI approaches offer appropriate mechanisms for school-based services to address government mandates such as Individuals with Disabilities Education Act and Common Core State Standards (Moore & Montgomery, 2018). QI is now recognised as a direct route to improving outcomes and delivery of services and a legitimate source of new knowledge across clinical settings.

Given this reality, there is an acute need for clinicians to incorporate QI practices as a routine component of their clinical operations. Clinical QI practices are defined as "any systematic, data-guided activity that is designed to bring about the immediate improvement of care in a local

setting” (Baily, Bottrell, Lynn, & Jennings, 2006, p. S5). By definition, QI practices seek to bring about immediate changes in the local setting; therefore, much of the literature describing QI practices comes from single-site studies using less robust methodological (i.e., pre/post) designs than those seen in traditional research (Eccles, Grimshaw, Campbell, & Ramsay, 2003). These designs are appropriate for clinicians in the field when the goal is to create immediate, local change. However, their usefulness is limited when trying to draw more global conclusions about cause and effect or the generalisability of individual QI practices to different patient populations or settings. As a result, there is also an urgent need to undertake QI research to build an evidence base that can guide clinicians to the most effective approaches to bring about change in their local environment. Although QI practice includes use of the scientific method, it is generally not considered “research” per se. The generally accepted definition of QI research includes the pursuit of generalisable new knowledge relevant to creating and sustaining improvement in health care delivery across real-world settings (Margolis, Provost, Schoettker, & Britto, 2009). In contrast to QI practice, QI research aims to assess the effectiveness of QI practices using robust and traditional research methodologies.

Understanding and evaluating interventions that can effectively and efficiently improve health care delivery, whether it is in the context of QI practice or QI research, is of significant interest to clinicians, administrators, patients, and policy makers. Importantly, the effectiveness of QI interventions can be highly dependent on the context within which they are delivered. This can include the multitude of factors associated with the design and implementation of the intervention and the perspectives and behaviours of patients and health care professionals and organisational and environmental factors that can influence care delivery. Unfortunately, the quality of descriptions of interventions and the context surrounding them are notoriously poor (Hoffmann et al., 2014).

Mixed-Method Approaches

Mixed-method approaches, combining qualitative and quantitative data, enhance the reporting and conduct of QI practices and research. Qualitative methods include observations and interviews, while quantitative data provide statistical validation. Describing a QI intervention should cover duration, delivery mode, and context. Mixed-method approaches help

understand what drives improvement and identify barriers. Evaluation designs fall into non-experimental, quasi-experimental, and experimental categories, each with varying rigour and suitability for local versus generalisable findings.

Before-and-After Design

This non-experimental study design compares changes in the targeted outcome of a QI intervention in the same site(s) before and after the intervention. It is the simplest and one of the most common designs used to evaluate QI interventions (Eccles et al., 2003). The assumption of this design is that any observed changes in the targeted outcome are due to the intervention. However, a limitation of this design is that it does not control for general environment or organisational trends (i.e., secular), which may also influence the outcomes independent of the intervention (Eccles et al., 2003; Itri et al., 2017; Portela, Pronovost, Woodcock, Carter, & Dixon-Woods, 2015). Therefore, this design makes it difficult to ascertain whether the intervention or other unknown factors produced the observed change. Nevertheless, this may be a necessary design choice for single-site organisations participating in QI practices.

Before and After with Non-Equivalent Control Group

This quasi-experimental study design compares changes in the targeted outcome of a QI intervention before and after the intervention, both in a group that receives the intervention and in a nonequivalent control group not receiving the intervention. The term nonequivalent control group is used to specify that there may be differences between the control and intervention groups because they were not randomly assigned (Handley et al., 2018). To mitigate potential confounding due to non-equivalence, the control sites should be chosen to match the intervention sites on patient and organisational factors that are theoretically linked to the targeted outcome, including the baseline (i.e., before period) rates of the variable of interest. This is a straightforward and low-cost study design. In addition, it can control for confounding and general trends that may influence the targeted outcome, thereby increasing the ability to detect changes associated with the QI intervention (Coly & Parry, 2017; Handley et al., 2018; Itri et al., 2017; Portela et al., 2015).

Interrupted Time Series

This quasi-experimental study design uses observations of the targeted outcome at multiple time points (e.g., monthly, quarterly) before and after a QI intervention. Multiple points before the intervention (i.e., interruption) are measured to assess any underlying trends, which is assumed to continue unchanged in the absence of the intervention (Handley et al., 2018; Itri et al., 2017). Multiple points are also measured after the intervention to evaluate the effect of the intervention accounting for secular trends (Handley et al., 2018; Itri et al., 2017). This design is often used when the intervention is expected to have a relatively quick effect and can be used with a single site or group of sites (Coly & Parry, 2017; Handley et al., 2018). It is also the preferred method for evaluation of interventions using PDSA cycles because trends in the data can be examined before, during, and after repeated intervention cycles (Speroff & O'Connor, 2004). However, this design should not be used if there is no clearly defined point in time when the intervention occurred and at least three data points before and three data points after the intervention (Cochrane Effective Practice and Organisation of Care, 2017).

Interrupted time series designs are one of the strongest evaluative designs when randomization is impossible (Bernal, Cummins, & Gasparrini, 2017). The primary advantage of this design is that it determines the intervention effect while controlling for preintervention trends (Handley et al., 2018). In addition, this design can improve the likelihood of detecting a change due to the intervention because it makes use of the full range of longitudinal data instead of collapsing all data to single before-and-after intervention time points. The primary limitation is the possibility that factors other than the intervention have affected the targeted outcome, not fully accounted for by the preintervention trend. This limitation can be minimised by including a non-equivalent control group (Bernal et al., 2017; Coly & Parry, 2017). Another challenge with interrupted time series designs is that the statistical complexity of the analysis is increased.

Stepped Wedge

This quasi-experimental study design consists of a sequential roll-out of an intervention until all individuals (e.g., patients, providers) or clusters (e.g., units, clinics) receive the QI intervention. This is done in multiple phases where no one receives the QI intervention and then one or more

individuals/clusters are exposed to the QI intervention at regular prespecified intervals. By the end of the study, all clusters will have transferred to the intervention group (Coly & Parry, 2017; Handley et al., 2018). All participants eventually receive the intervention by the last time interval. Data are collected on all clusters such that each cluster contributes data during both control and intervention time periods, reducing the risk of bias due to time and time-dependent factors (Handley et al., 2018). To increase the strength of the conclusion drawn, the order in which clusters receive the intervention may be randomised (Itri et al., 2017).

This design is appropriate when benefits of the intervention exceed the potential harm; it is unethical to have a group that does not receive the intervention; or there are logistical, practical, or financial factors that prevent the intervention from being implemented simultaneously (Coly & Parry, 2017; Itri et al., 2017). The strength of this design is that everyone will eventually receive the intervention, reducing resistance to being randomly assigned to an intervention or control group (Itri et al., 2017). However, this means that it often takes longer than other designs to implement, which can lead to higher dropout rates among those receiving the intervention later, a loss of fidelity of key intervention components over time, and the potential contamination of later participants. Also, because before-and-after intervention data are collected for all participants at multiple time points, complexity of the analysis is increased (Handley et al., 2018; Itri et al., 2017).

Individual and Cluster Randomised Trials

Randomised controlled trials (RCTs) are considered the gold standard for determining the relationship between cause and effect. In this study design, participants are randomly assigned to either an intervention group or a control group, which receives no intervention or an alternative intervention (Eccles et al., 2003; Handley et al., 2018). Random assignment balances the baseline characteristics between the groups, thereby controlling for both known and unknown factors that may independently affect the targeted outcome. This allows greater confidence that any observed differences in outcomes between the two groups can be attributed to the intervention (Eccles et al., 2003; Handley et al., 2018; Itri et al., 2017).

Randomisation may occur at the level of the individual patient or of the clinician or at “clusters” such as a unit, clinic, or hospital (Eccles et al.,

2003; Handley et al., 2018; Itri et al., 2017). Cluster randomization should be considered when there is the possibility of treatment contamination. Contamination occurs when intervention for control patients may be influenced by a clinician's experience using the intervention for patients in the treatment group. When this is the case, randomization should be at the clinician or organisational level, so as a group, they are either in the intervention group or the control group. All things being equal, a large number of small clusters are better than a small number of large clusters, but increasing the number of clusters may be very expensive (Itri et al., 2017; Portela et al., 2015).

The use of RCTs for QI research is not without controversy (Baily et al., 2006; Eccles et al., 2003). RCTs typically employ strict inclusion and exclusion criteria, which increases a study's internal validity. However, some believe that the focus on internal validity and tight eligibility criteria strips the contextual factors (i.e., organisational culture, personnel, resources) that are important to QI efforts. By doing so, there is a risk that this greatly reduces a study's generalisability to other settings, potentially diminishing the study's usefulness (Baily et al., 2006; Eccles et al., 2003; Handley et al., 2018). This limitation can be mitigated by using a pragmatic RCT design in which the study is conducted in routine practice settings. Other potential limitations to individual and cluster RCTs include the costs and time to conduct the study, desire for rapid change, and lack of research expertise (Itri et al., 2017). However, the methodology and efficiency of RCTs have improved over the last decade, which has resulted in greater use of this design for QI research (Raine et al., 2016)

Why Is QI So Important?

Clinicians must respond to demands from insurers, accreditors, and government mandates to monitor service quality. Quality improvement (QI) practices should be routine for SLPs and audiologists since data collection is a standard part of care. These data can track patient outcomes, highlight service gaps, and improve service delivery. The U.S. Department of Health and Human Services' National Strategy for Quality Improvement in Healthcare outlines three QI aims: better care, healthy people/healthy communities, and affordable care. SLPs and audiologists can support these aims through QI projects, addressing various aspects of care and communication.

School-based SLPs can use QI to align services with academic outcomes and improve service delivery practices. Ethically, health care professionals are obliged to continually improve clinical care safety and effectiveness, necessitating QI activities. QI projects enhance interprofessional collaboration, awareness of communication's role in health, and overall service quality.

QI projects offer opportunities for interprofessional collaboration and increased awareness of the role of communication in health and education. However, challenges include potential anxiety and resistance from staff, particularly if QI efforts highlight system weaknesses. Effective communication about QI goals is crucial to avoid misconceptions and ensure staff engagement.

QI skills are often not included in health professions curricula, leading to on-the-job learning for many clinicians. There are numerous online resources available for QI training, such as those provided by the Public Health Foundation and ASHA.

QI activities are essential for improving service delivery in speech-language pathology and audiology. They provide opportunities for professional development, interprofessional collaboration, and the advancement of clinical practice. The distinction between QI practice and QI research is often blurred, but both are vital for enhancing the quality and impact of services across various contexts.

Compiled from: Mormer E., Stevans J. Clinical Quality Improvement and Quality Improvement Research. Perspectives of the ASHA Special Interest Groups. 2019. № 4. Pp. 1-11.

Activity 5. Work in pairs. Discuss why the following things were mentioned in the text.

1. QI measures
2. Clinical QI practices
3. Data-guided activity
4. Patient outcomes tracking
5. Systematic data collection
6. Randomised controlled trials
7. Generalisability
8. Qualitative and quantitative methods

9. Pre/post study design
10. Evaluation design

Activity 6. Read the text and complete the table.

	Statements	True	False	Not stated
1	QI practices are only relevant in healthcare settings and not applicable in educational environments.			
2	Implementing QI practices can help speech-language pathologists and audiologists meet federal mandates and improve service delivery.			
3	Mixed-method approaches in QI research involve only qualitative data collection methods such as interviews and observations.			
4	RCTs are considered the most reliable design for establishing causal relationships in QI research.			
5	There is strong evidence that all healthcare professionals are adequately trained in QI skills during their initial education and training.			
6	Effective communication of QI goals to staff is crucial for minimising resistance.			

Activity 7. Choose the topics to talk about. Prepare your ideas, then work in pairs and share your perspectives.

1. Discuss how QI practices contribute to better patient care and clinical outcomes.

2. Explore the distinctions and overlaps between routine QI activities and formal QI research.
3. Analyse how combining qualitative and quantitative methods can provide a comprehensive understanding of QI interventions.
4. Debate the ethical responsibilities of healthcare providers to engage in QI activities and continually improve the quality of care.
5. Predict how QI practices might evolve in the field of speech-language pathology.

Activity 8. Translate each Russian term into its English equivalent. Provide an explanation of the equivalence, similar to the example.

Russian term	English equivalent
рандомизированное контролируемое испытание	randomised controlled trial

Equivalence explanation: both terms refer to a scientific study design that aims to reduce bias when testing the effectiveness of new treatments.

One-word terms:

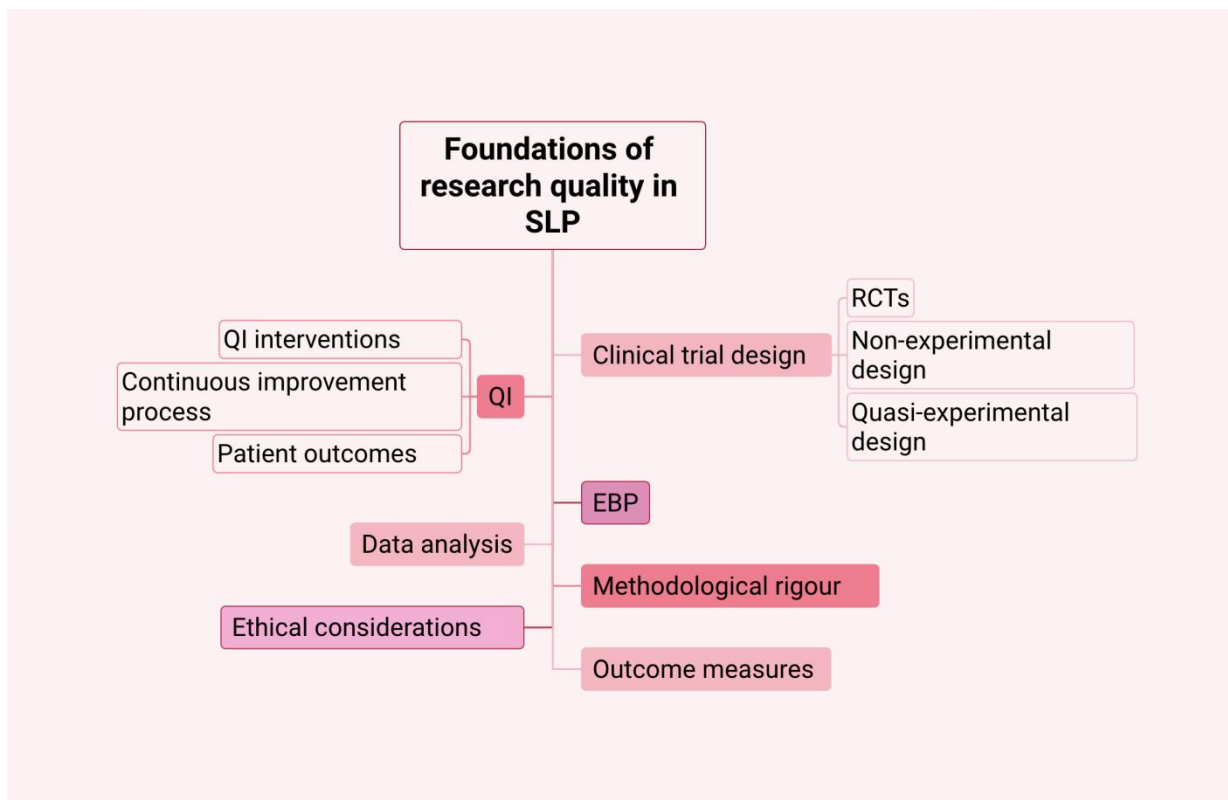
данные, качество, улучшение, методы, вмешательство, оценка, исследования, качественный, количественный, анализ, стратегии, реализация, наблюдение, обучение, организация, интеграция, стандарты, эффекты, пациенты, сотрудничество, результаты, процесс, безопасность.

Terminological units:

дизайн клинических исследований, доказательная практика, улучшение качества, системный подход, медицинское обслуживание, анализ данных, клиническая оценка, междисциплинарное сотрудничество, контекст реализации, методология исследований, стандарты качества, проектное управление, планирование вмешательства, обучение и развитие, профессиональное развитие, безопасность пациентов, качество обслуживания, управление процессами, оценка результатов, клинические исследования, коммуникация в здравоохранении, мониторинг качества, научный метод, квазиэкспериментальный дизайн, рандомизированное контролируемое испытание.

Activity 9. Analyse the fragment of the mind map for the components of high-quality research in SLP. Answer the questions.

1. What are the differences between RCTs, non-experimental designs, and quasi-experimental designs in clinical trial design?
2. How does evidence-based practice contribute to enhancing research quality in SLP?
3. How can QI interventions lead to better patient outcomes?
4. What are some examples of continuous improvement processes?
5. What statistical methods and software tools are commonly used in data analysis for SLP research?
6. What are the ways to ensure methodological rigour in SLP research?



Activity 10. In groups choose two categories from the mind map above and do research. Compile your findings and integrate them into the existing map.

Activity 11. Use the Corpus of Contemporary American English (COCA) to analyse the lexico-grammatical profiles of the terms. Complete the table.

Term	POS	Inflections	Collocations	Inflections
QI				
EBP				
Clinical trial				
Experimental design				
Interdisciplinary research				
Research ethics				
Statistical significance				
Publication bias				

Activity 12. Use various databases to identify emerging trends in speech-language pathology research. Complete the table.

Trend	Database	Years	Number of publications	Key findings
	SSRN			
	Scopus			
	Web of science			
	PubMed			
	JSTOR			

Unit 42. Evidence-Based Practice and Clinical Trials

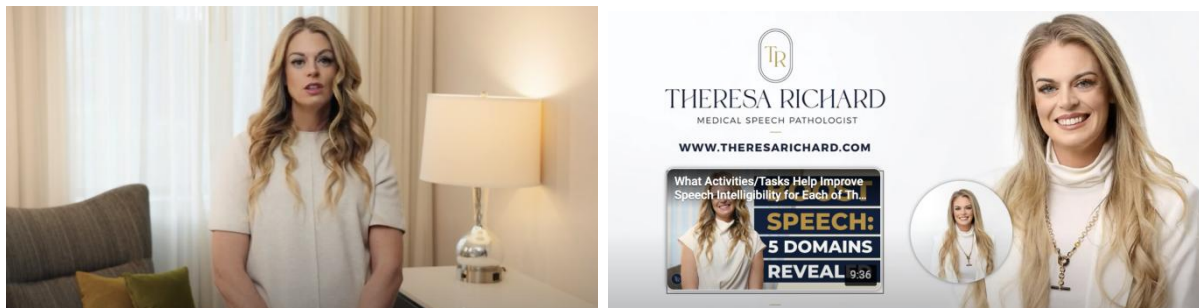
Activity 1. Work in groups. Discuss the questions.

1. What challenges do speech-language pathologists face when integrating evidence-based practice into their daily routines?
2. How can the results of clinical trials impact policy and funding for speech-language pathology services?

Activity 2. Use reliable sources to find definitions for the following terms related to speech-language therapy apps for children.

Term	Definition	Source
Motor speech impairment		
Atypical prosody		
Imprecise articulation		
Diaphragmatic breathing		
Articulatory kinematic approaches		
Patient-centred goals		
Communication-based treatment		
Impairment-based therapies		
Semantic feature analysis		
Melodic intonation therapy		
Verb network strengthening treatment (VNEST)		

Activity 3. Watch the video “Evidence-Based Practices for Treating Specific Speech and Language Disorders.”⁵ How do evidence-based practices improve treatment for dysarthria, aphasia, and apraxia?



Activity 4. Work in pairs. Compare your ideas and discuss.

1. How do impairment-based therapies differ from communication-based therapies in treating aphasia?
2. Can you explain the significance of the example given about the young girl with spastic dysarthria and how it illustrates the impact of personalised therapy goals?
3. Why is it crucial to differentiate between apraxia of speech and other speech and language disorders like dysarthria and aphasia?

Activity 5. Watch the video again and complete the table.

	Statements	True	False	Not stated
1	Dysarthria is exclusively characterised by difficulties in phonation and articulation.			
2	In evidence-based therapy for speech and language disorders, it is important to include patient-controlled self-evaluation.			

⁵ URL: <https://youtu.be/A9t0JgrmUM8?si=3gFKdC2CqFSica78> (Accessed 30.05.2024, 10:00h).

	Statements	True	False	Not stated
3	The use of electric shock therapy is a current, evidence-based practice for treating speech and language disorders.			
4	Aphasia typically occurs in isolation without co-occurring communication impairments.			
5	The effectiveness of diaphragmatic breathing techniques for improving respiratory support in dysarthria has been extensively studied and universally accepted.			
6	Script training is used in communication-based treatments to improve everyday communication for individuals with aphasia.			

Activity 6. Complete the table, using one word in each gap.

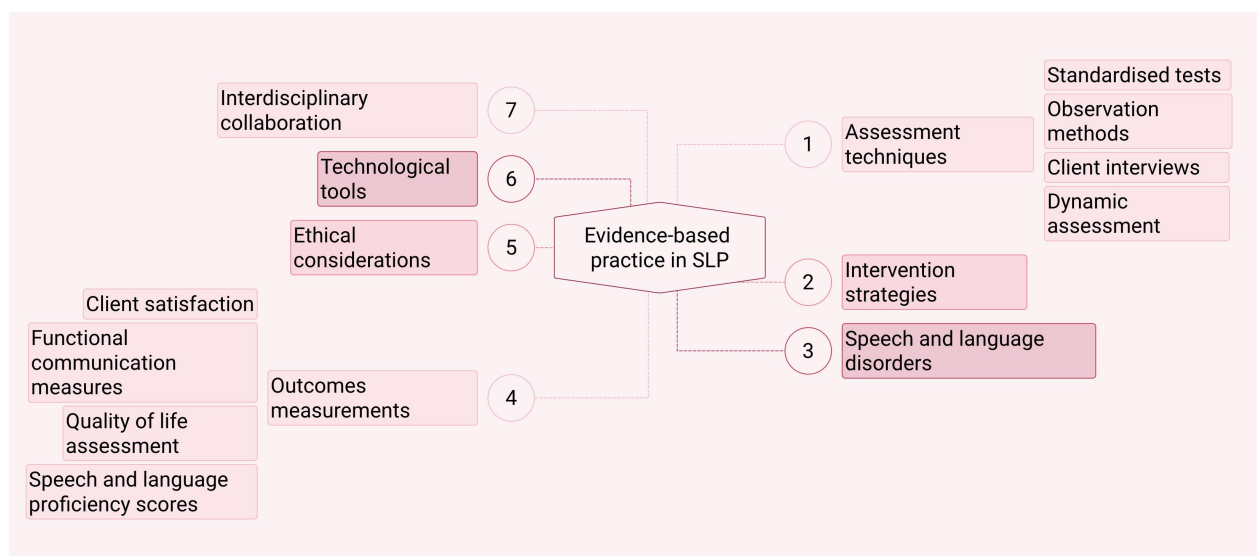
Disorder	Description	Impact on child	Intervention focus
Dysarthria	Motor speech impairment affecting (1) ____ movements.	Reduces (2) _____ of speech.	Improve (3) _____ production.
Aphasia	Language disorder impacting the ability to (4) _____.	Causes difficulty in (5) _____.	Use (6) _____-based treatments.
Apraxia	Disorder in (7) _____ planning of speech.	Leads to (8) _____ articulation.	Enhance (9) _____ accuracy.

Activity 7. Work in groups. Categorise terms related to evidence-based therapy for speech and language disorders. Specify the goals for the therapy. Complete the table.

Terms: diaphragmatic breathing, CART, postural adjustments, visual feedback, self-evaluation, script training, problem-solving, overarticulation, integral stimulation, melodic intonation therapy, ORLA, vocal function exercises, rate and rhythm approaches, self-correction, pacing strategies, articulatory kinematic approaches.

Disorder	EBT	Goals of therapy
Dysarthria		
Aphasia		
Apraxia		

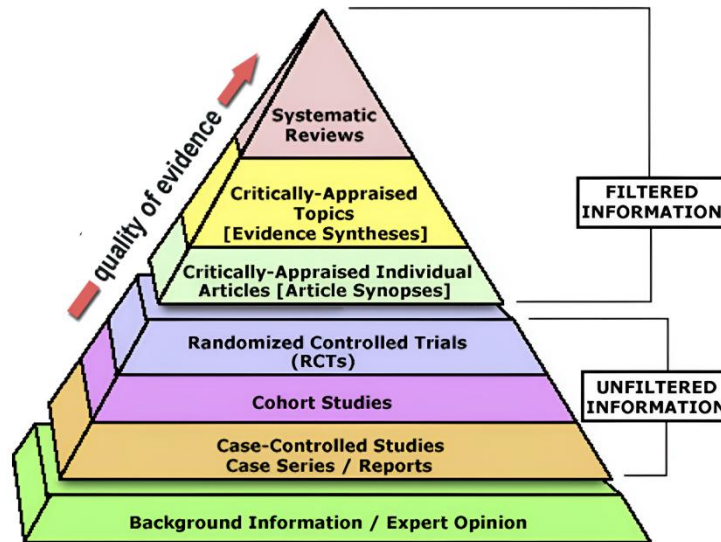
Activity 8. Choose one aspect related to EBP in SLP and research it in depth. Expand the mind map given below.



Activity 9. Present your findings to the class. Include definitions, examples, and real-world applications of the chosen category.

Activity 10. Work in groups. Search for publications related to speech-language pathology using online databases. Categorise the evidence found in these publications according to the levels of evidence in the pyramid below.

EBP Pyramid



Source: URL: <https://isu.libguides.com/c.php?g=349507&p=9023239>
(Accessed 30.05.2024, 19:00h).

Publication	Authors	Year	Type of study	Level of evidence	Justification

Activity 11. Discuss in groups.

1. How frequently do you implement evidence-based methods in your professional activities?
2. What challenges do you face when applying evidence-based practices in your work?
3. How has the incorporation of evidence-based practices influenced your approach to treating speech and language disorders?
4. Can you provide an example of a successful outcome from using evidence-based practices in your therapy sessions?

Activity 12. Reflect on how you currently use EBP in developing your master's thesis.

Unit 43. Experimental Design and Data Analysis

Activity 1. Discuss in pairs.

1. How do you plan to ensure the validity and reliability of your experimental design in your master's research?
2. What data analysis techniques are you considering for your master's thesis?

Activity 2. Read the text. What are the essential statistical techniques for research in speech, language, and hearing sciences?

Essential Statistical Concepts for Research in Speech, Language, and Hearing Sciences

Statistical techniques are not magical or mysterious; rather, they are tools designed to quantify scientific evidence in various ways. Each method is built upon a mathematical foundation and has well defined appropriate uses and requirements. Understanding more about these foundations, as well as the assumptions made by statistical procedures, can help investigators to adopt the most appropriate statistical method for the problem at hand, leading to more reliable and replicable results. Most traditional statistical methods follow the frequentist philosophy, in which models are fit via maximum likelihood or ordinary least squares. There are, of course, alternate perspectives on statistical inference, including Bayesian statistics and algorithmic modelling/machine learning. In addition, there are many techniques in nonparametric inference and variations on likelihoods (e.g., partial likelihood, semipartial likelihood, quasilielihood, pseudolikelihood). Our focus in this article, however, is primarily on frequentist hypothesis testing using maximum likelihood, which is at the core of most applied science, as well as introductory statistics curricula. Researchers in speech, language, and hearing sciences are used to designing studies to learn about specific topics of interest, and many do perform their own statistical analyses to answer their hypothesis questions. Therefore, our goal is not to review all of the basics of statistics; rather, our goal is to highlight common errors and misconceptions in statistical approaches that can help scientists to avoid common statistical pitfalls in their research.

The use of statistical methods with underlying assumptions that do not match the data can have potentially serious consequences for the accuracy and reproducibility of scientific results. A recent analysis in major behavioural psychology journals indicated that approximately half of articles published between 1985 and 2013 contained at least one statistical error, and around 12% of published articles contained a statistical error that would have altered key findings of the study (Nuijten, Hartgerink, van Assen, Epskamp, & Wicherts, 2016). Widespread findings of errors in statistical reporting and interpretation are believed to have contributed to an inability to replicate key scientific findings from the literature in psychology (Pashler & Wagenmakers, 2012) and medicine (J. P. Ioannidis, 2005). Problems with replication of statistical results erode public trust in science and can reduce the impact of scientific findings. Fortunately, many current problems related to the lack of transparency and reproducibility in scientific research can be resolved through increasing statistical proficiency of scientists and promoting open and transparent practices in the sharing of the code used for statistical analyses and data (Peng, 2015). To be clear, clinical and scientific experts do not need to become statistical experts, but they should recognize the statistical principles involved in their study design and their statistical analysis plan. Moreover, they should seek out collaborations with statistical experts to be involved with the study design and the statistical analyses. Study teams should include statistical expertise early in the development process to help design the study, to set up a clear and appropriate analysis plan, and to ensure appropriately analysed and presented results.

Statistical significance refers to the likelihood that a research finding is not due to chance, typically evaluated using *p* values. Clinical significance, on the other hand, measures the practical importance of a treatment effect. Both are important for interpreting research results, with clinical significance providing context for the real-world impact of findings.

p Values

A *p* value indicates the probability that the observed data would occur by chance if there were no real effect. Commonly, a *p* value less than 0.05 is considered statistically significant. However, *p* values alone do not measure the size or importance of an effect, leading to potential misinterpretation if not used alongside other metrics.

Effect Sizes

Effect sizes quantify the magnitude of a treatment effect, offering insight into its practical significance. Absolute effect sizes provide a straightforward measure of impact, while relative effect sizes compare the effect to a baseline or control group. Reporting effect sizes helps to contextualise the statistical significance of findings.

Regression Analysis

Regression analysis is used to examine relationships between variables, allowing researchers to predict outcomes based on one or more predictors. In speech, language, and hearing research, regression can identify factors influencing treatment outcomes and measure the strength of these relationships.

Analysis of Variance (ANOVA)

ANOVA tests for differences between group means and is particularly useful when comparing multiple groups or conditions. It helps determine whether observed differences are statistically significant, guiding researchers in evaluating the efficacy of different treatments.

Model Selection

Choosing the appropriate statistical model is critical for accurately analysing data. Model selection involves considering the research question, data characteristics, and the assumptions of different statistical methods. Proper model selection enhances the reliability of research findings.

Multiple Comparisons

When conducting multiple statistical tests, the risk of Type I errors (false positives) increases. Techniques such as the Bonferroni correction or False Discovery Rate (FDR) adjustments help control for this risk, ensuring that the reported findings are more likely to be true.

Understanding and applying these statistical techniques is essential for conducting rigorous research in speech, language, and hearing sciences. By ensuring both statistical and clinical significance, choosing appropriate models, and controlling for errors, researchers can produce reliable and impactful findings that advance the field and improve clinical practices.

Compiled from: Oleson J.J., Brown G.D., McCreery R. Essential Statistical Concepts for Research in Speech, Language, and Hearing Sciences. J Speech Lang Hear Res. 2019. № 62 (3). Pp. 489-497.

Activity 3. Discuss in pairs.

1. How do statistical techniques help ensure the validity and reliability of research findings in speech, language, and hearing sciences?
2. Why is it important for researchers to understand the assumptions underlying the statistical methods they use?
3. What are the differences between statistical significance and clinical significance?
4. How can effect sizes complement p values in interpreting the results of a study?
5. Why is it essential to involve statistical experts early in the study design process?
6. What strategies can researchers use to control the risk of Type I errors when conducting multiple comparisons?

Activity 4. Read the text. What components should be included in the methodology section of a master's thesis?

How to Write Your Master's Thesis?

The methodology section of the thesis should include a sufficient description of the methods of study design, data collection, and analysis to provide someone reading your thesis who is unfamiliar with your study enough information to run the same exact study on their own. You should provide a detailed description in the text, and you may want to include additional details, such as a stimulus list, in the appendix. Information included in the appendix should be referenced in the text.

The methods section of the thesis will differ depending on the type of study you conduct. Empirical studies typically include a section on study design, stimuli, participants, procedure, and data analysis. Meta-analyses and systematic reviews typically include a description of the selection criteria and details about the studies included in the review.

Study Design and Stimuli

This information included in the study design and stimuli section will vary depending on the type of study that was conducted. For example, for within-group or between-group comparison studies, you would include information such as the number of stimuli, number of trials, and a description of the selection criteria for stimuli or the process of stimulus

creation. If there are multiple conditions, include a description of each condition and how many stimuli were included in each. If a pilot study was conducted during stimulus creation, describe how this pilot was conducted and how the results contributed to stimulus creation. A full stimulus list is often included in a Master's thesis and is most likely to be included in the Appendix unless the list is quite short. The description of the study design and stimuli may be included in a single section or in separate sections depending on the amount of information included on each topic. Different descriptives would be included for single subject case studies, intervention designs, and meta-analyses, for example. Refer to prior research on your topic to see what goes into a robust study.

Participants

Describe the participant characteristics in detail. Most studies minimally include information about participants' age and sex/gender, but other demographic information might include their highest level of education obtained, their native and second languages or other information about their language learning and language use background, or other variables that have the potential to affect the results or to provide clues about patterns of findings. Studies with clinical populations will need to include a sufficient description about participants' diagnoses, and other characteristics such as severity, length of time with diagnosis, treatment histories (if known), etc. In all cases, you should include any inclusionary and exclusionary criteria that you Version 10-28-19 applied during recruitment. It is also common to describe how and where participants were recruited in order to account for potential selection bias.

Procedure

For empirical studies, this section describes how the study was conducted. Include information about which tasks were given and in what order, what the conditions of the testing environment were like, how the experiment was displayed (e.g., on a computer monitor, on paper), whether the tasks were timed or not, and other details that would allow a different researcher to run the exact study based on the information you provide. Also describe whether the study was approved by the Institutional Review Board and whether participants provided informed consent before participating.

For meta-analyses and systematic review papers, this section will describe the procedure of study selection based on a set of criteria and whether any studies that were removed for each criterion.

Data Analysis

Give an overview of the analyses you ran, including clear identification of the dependent and independent variables. If there were multiple steps to the analysis, describe each step. This is not where the results will be described. Instead, you want to describe the analysis you chose and what variables were included in the analysis. If data cleaning techniques were employed (such as an outlier analysis), describe those as well. If any data was removed before the analysis, describe why the data was removed.

Source: California State University, East Bay. Master's thesis handbook.

URL: <https://www.csueastbay.edu/slhs/files/docs>

(Accessed 01.06.2024, 08:00h).

Activity 5. Discuss in groups. Complete the table.

1. Why is it important to provide a detailed description of the study design and stimuli?
2. What participant information should be included and why?
3. How does a clear description of the procedure benefit future researchers?
4. Why is it necessary to explain the data analysis methods in detail?

Component of methodology section	Description
Study design and stimuli	
Participants	
Procedure	
Data analysis	

Activity 6. Examine the following phrases for writing about methodology and data analysis and explain their meanings and implications.

1. Statistical techniques are not magical or mysterious; rather, they are tools designed to quantify scientific evidence in various ways.

2. Our focus however, is primarily on frequentist hypothesis testing using maximum likelihood, which is at the core of most applied science, as well as introductory statistics curricula.

3. Effect sizes quantify the magnitude of a treatment effect, offering insight into its practical significance.

4. Regression analysis is used to examine relationships between variables, allowing researchers to predict outcomes based on one or more predictors.

5. ANOVA tests for differences between group means and is particularly useful when comparing multiple groups or conditions.

6. Choosing the appropriate statistical model is critical for accurately analysing data.

7. Describe the participant characteristics in detail. Most studies minimally include information about participants' age and sex/gender, but other demographic information might include their highest level of education obtained, their native and second languages or other information about their language learning and language use background, or other variables that have the potential to affect the results or to provide clues about patterns of findings.

8. If data cleaning techniques were employed (such as an outlier analysis), describe those as well.

9. For meta-analyses and systematic review papers, this section will describe the procedure of study selection based on a set of criteria and whether any studies that were removed for each criterion.

10. Give an overview of the analyses you ran, including clear identification of the dependent and independent variables. If there were multiple steps to the analysis, describe each step.

11. Clinical significance, on the other hand, measures the practical importance of a treatment effect.

12. It is also common to describe how and where participants were recruited in order to account for potential selection bias.

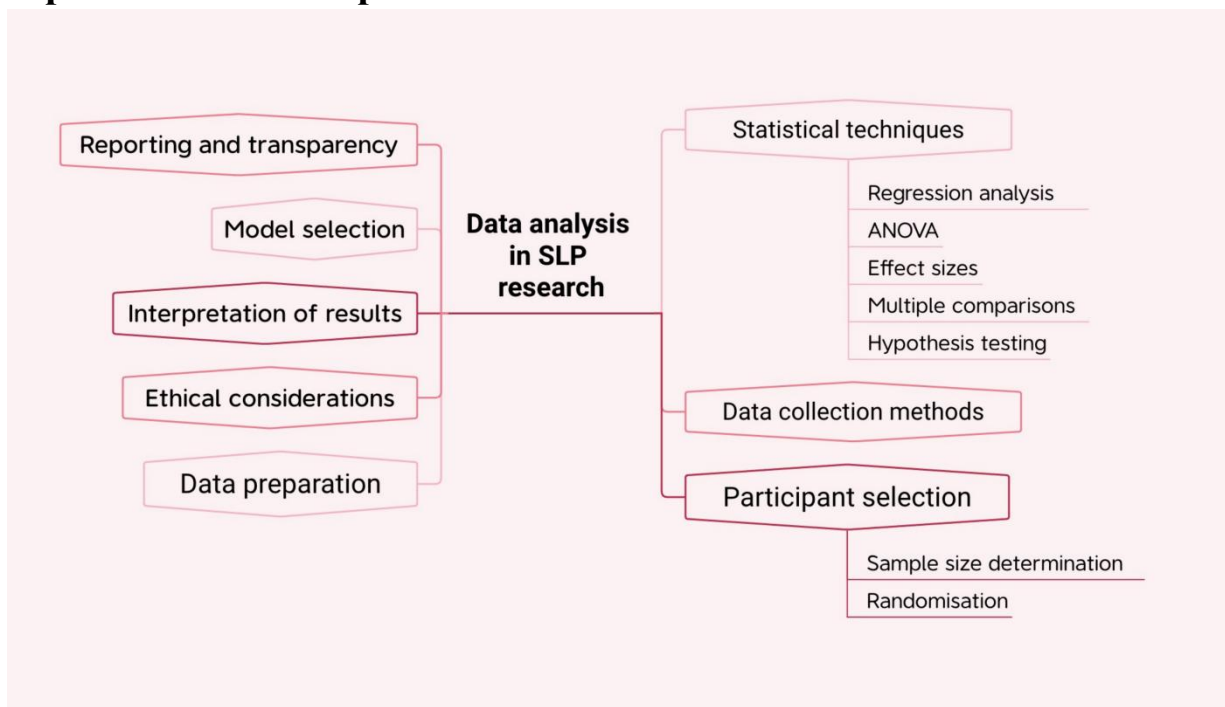
Activity 7. Using the Corpus of Contemporary American English (COCA), explore the frequency, collocations and contextual usage of the following phrases from the texts. Complete the table with your findings.

Phrase	Frequency	Context	Co-occurring terms
Quantify scientific evidence			
Frequentist hypothesis testing			
Regression analysis			
Procedure of study selection			

Activity 8. Work in pairs. Brainstorm terms related to data analysis and research methodology in speech-language pathology. Discuss how these terms relate to each other. Use arrows or lines to show connections:

e.g., hypothesis testing -> relies on -> p values

Activity 9. Work in groups. Choose two statistical techniques and expand the mind map below.



Activity 10. Write the methodology section of their master's thesis.

Follow the provided plan:

1. Introduction: objective of your study
2. Detailed information on your study design
3. Participants: characteristics, inclusionary and exclusionary criteria, recruitment process
4. Materials and stimuli
5. Procedure
6. Statistical techniques and methods used to analyse the data
7. Ethical considerations: informed consent, confidentiality
8. Potential limitations of your methodology

Activity 11. Work in groups. Design specific criteria that can be used to evaluate each aspect of the paper.

Aspect	Evaluation criteria	Met/ not met	Comment
Objective			
Study design			
Participants			
Materials and stimuli			
Procedure			
Data analysis			
Ethical consideration			
Methodology limitations			
Overall clarity			
Completeness			
Coherence			
Linguistic accuracy			

Activity 12. Work in pairs. Exchange your methodology sections. Review each other's works. Complete the table.

Unit 44. Scholarly Development in SLP

Activity 1. Discuss in pairs.

1. What do you know about different models of scholarly support and mentorship in academic research?
2. How can mentorship shape your research approach and improve your work in SLP?

Activity 2. Work in groups. Categorise the following terms related to research mentorship in speech-language pathology.

Terms: advisor, peer review, feedback, collaboration, guidance, publication, research funding, academic network, thesis defence, professional growth, time management, skills development, proposal development, ethical considerations, motivation, accountability, knowledge transfer, stress management, resource allocation, mentor-mentee relationship.

Roles	Benefits	Challenges	Support mechanisms	Outcomes

Activity 3. Read the informational overview of ASHA's Mentoring Programs for speech-language pathologists and audiologists. What are the primary objectives of each mentoring program?

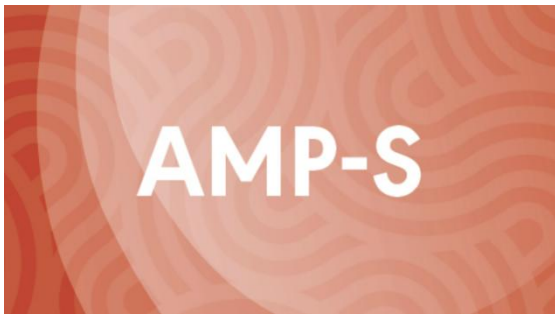
ASHA's Mentoring Programs

Unlock your potential by enrolling in one of ASHA's Mentoring Programs! Whether you're a potential mentee looking to set and achieve your goals or a potential mentor seeking to grow your leadership skills, help others, and learn more about yourself—our mentoring programs are here for you.



*Assistants Mentoring
Program*

Audiology assistants pair with audiologists, and SLPAs pair with SLPs to plan and achieve their professional goals together. Develop your leadership skills and discover more about your role in the supervisory relationship during this is a year-long, self-matched online program.



*Audiology Mentor Program for
Students*

Doctor of audiology (AuD) students pair with practising clinical audiologists who provide feedback and support students on their journey to becoming practising professionals. AMP-S is an online, 12-month program where mentees and mentors self-match based on shared mentoring and clinical interests.



*Career Transitions Mentorship
Program*

Experienced SLPs who are transitioning to a new job or expanding on an area of practice are self-matched with SLP mentors who are proficient in their setting. This is a 6-month, online program where the focus is on helping the mentee successfully transition to their new professional setting and skills.



*Leadership Mentoring
Program*

ASHA members interested in developing their leadership skills and becoming more involved in volunteering are matched with seasoned volunteer mentors. This program is hosted virtually over a 6-month period and is mentee-driven.



Mentoring Academic-Research Careers

PhD students, postdocs, and early-career faculty participate in individualised mentoring from experienced faculty on academic-research career development topics. This is an online, nine-month program where mentees and mentors self-match based on shared mentoring and academic interests.



Student to Empowered Professional Mentoring Program

S.T.E.P. connects self-motivated undergraduate and graduate students with experienced audiologists and SLPs in meaningful, one-to-one virtual mentoring relationships. This program empowers CSD students from underrepresented racial/ethnic populations.

Source: American Speech-Language-Hearing Association. Mentoring Programs. URL: <https://www.asha.org/mentoring/> (Accessed 02.06.2024, 10:00h).

Activity 4. Discuss in groups.

1. How do ASHA's Mentoring programs support the professional development of SLPs and audiologists at different stages of their careers?
2. In what ways can the Assistants Mentoring Program benefit both mentors and mentees in their professional journeys?
3. What are the primary goals of the Mentoring Academic-research Careers program? How does it support early-career faculty and PhD students?
4. How does the Career Transitions Mentorship program facilitate the successful transition of SLPs into new job roles or areas of practice?
5. Discuss the importance of self-matching in ASHA's Mentoring Programs. How does this approach enhance the effectiveness of the mentoring relationship?

Activity 5. Collaborative project. Develop a detailed application proposal for a mentoring program to support master's thesis research.

You are a group of SLP master's students. You have the opportunity to apply for a mentoring program that supports students in their thesis research. To apply, you need to create a detailed proposal outlining your needs and how the chosen mentoring program can address them. Your proposal should incorporate elements from various ASHA Mentoring Programs and aim to provide comprehensive support, covering academic, professional, and personal development aspects.

Guidelines:

1. Identify your needs as master's students in SLP: challenges and needs you are facing, gaps in the current support system.
2. Review the ASHA Mentoring Programs and understand their components.
3. Define the structure of your proposal. Include information about mentorship duration and goals, mentor-mentee matching strategy, etc. Integrate elements from various ASHA Mentoring Programs.
4. Develop program components (e.g., seminars, workshops, peer support groups, etc.)
5. Create a mentoring program proposal: introduction, program structure, components, expected outcomes, and ways to evaluate effectiveness of this program.

Activity 6. Design a presentation covering all aspects of your proposal. Present your proposal to a panel of faculty members and potential mentors who will evaluate its relevance.

Activity 7. Arrange the following phrases according to their function. Add more examples to the table.

1. Can you help me understand what specific expectations you feel were not met?
2. I felt that the feedback on my thesis draft was not detailed enough.
3. Let's each take a moment to share our viewpoints without interruption.

4. Let's go through the draft together now.
5. Would a scheduled review session every two weeks work better for you?
6. Could we also use a shared document for ongoing comments?
7. Let's set a time to review our progress on this in a month and adjust if necessary.
8. I'm concerned that we might not be on the same page regarding the project's timeline.
9. How about we each take five minutes to explain our perspective before discussing solutions?
10. I understand you feel overwhelmed by the feedback. Let's break it down into manageable parts.
11. Maybe we could set clearer deadlines for each section of the thesis?

Functions	Phrases
Clarifying unmet expectations	
Offering assistance	
Expressing concerns	
Planning follow-up activities	
Facilitating open communication	
Encouraging structured discussion	
Proposing clear deadlines	

Activity 8. Prepare for the role-play according to the guidelines in your role-play card.

Scenario

You are a master's student currently working on your thesis. You have encountered some challenges with your mentor. You feel that the feedback provided by the mentor is too vague and not timely, which is hindering your progress. The mentor, on the other hand, believes you are not meeting the expected standards and deadlines for their thesis work. To address these

issues, the mentor, mentee, and a mediation facilitator have come together in a meeting room at the university.

Role card 1	Role card 2	Role card 3
<p>Role: mentor Goal: clarify your expectations and the standards required for the thesis. Express understanding of the student's perspective and challenges. Develop a clear plan for moving forward.</p>	<p>Role: mentee Goal: speak about specific instances where feedback was unclear or late. Explain your need for more structured guidance and specific deadlines. Suggest ways of better communicating your progress and challenges.</p>	<p>Role: mediator Goal: set ground rules for respectful and open communication. Ensure everyone has time to express their viewpoints without interruption. Summarise key points of agreement and disagreement. Help draft a clear action plan, including deadlines and specific expectations for both parties.</p>

Activity 9. Role-play the conflict resolution mediation session between the mentor and mentee. Use the phrases.

Activity 10. Discuss in groups.

1. What strategies did you find most effective for resolving conflicts during the role-play session?
2. How did using structured phrases impact the effectiveness of the communication between the mentor and mentee?
3. How can clear communication prevent conflicts in mentoring relationships?

Activity 11. How did the role-play exercise change your perspective on the importance of conflict resolution in mentoring relationships?

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MODULE 12

ETHICS AND PROFESSIONAL DEVELOPMENT

In this module, you will practise:

Skills focus

Reading	ASHA Code of Ethics
Listening	How to Make the Most Out of an SLP Career
Writing	A professional profile for a social media platform
Speaking	<p>Collaborative project: A structured conflict resolution protocol adapted to the clinic's needs</p> <p>Role-play: A mediation session aiming to help colleagues resolve their miscommunication regarding a patient's treatment plan</p>

Language focus

Professional terminology
Code of ethics, professional conduct, clinical competence, informed consent, lifelong learning, ethical principles, professional development, public statements, conflict of interest, professional judgement, technological advancements, confidential information, professional relationships, supervisory roles, clinical services, professional integrity, ethics complaint adjudication, protection of rights, professional autonomy, adherence to standards, continuing education, independent professional judgement, prevention of ethical violations, etc.
Functional language for academic and professional writing
Experienced speech-language pathologist specialising in paediatric communication disorders. Committed to providing evidence-based therapy to help children achieve their full communicative potential. Conduct comprehensive speech and language evaluations for children aged 0-18, etc.
Functional language for academic and professional speaking
I'm worried that increasing the therapy sessions might overwhelm the patient. Could you provide more details on how this approach benefits the patient? My concern is that we may not be addressing all aspects of the patient's needs. What if we incorporate some elements from both of our plans? You have a valid point regarding the patient's progress in other areas, etc.

Unit 45. Ethical Principles and Standards in SLP

Activity 1. Work in pairs. Discuss the questions.

1. What are the core ethical principles that guide SLP practice?
2. How does the ASHA Code of Ethics influence clinical decision-making in SLP?

Activity 2. Use reliable sources to find accurate definitions for the following terms.

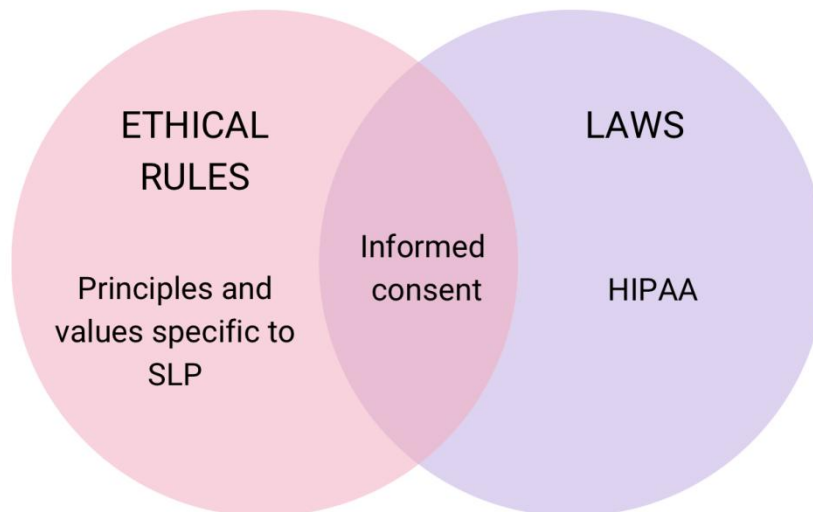
	Term	Definition	Source
1	Ethics		
2	Confidentiality		
3	Informed consent		
4	Diminished decision making ability		
5	Cultural competence		
6	Publicly disciplined		

Activity 3. Categorise associated words and phrases related to key ethical principles and concepts in SLP.

Morals, agreement, bias, privacy, diversity, integrity, conduct, permission, discretion, impartiality, responsibility, sensitivity, standards, security, dual roles, disclosure, accountability, inclusiveness, trust, accountability, objectivity, awareness, approval, respect, personal gain, ethics, protection, multicultural, understanding, influence, code of conduct

1. Ethics
2. Confidentiality
3. Informed consent
4. Conflict of interest
5. Cultural competence
6. Professionalism:

Activity 4. Work in groups. Reflect on the differences and overlaps between ethics and laws. Write your responses in the appropriate sections of the diagram.



Activity 5. Read the text. What core responsibilities and ethical guidelines must professionals in SLP, audiology and hearing sciences adhere to?

ASHA Code of Ethics

The American Speech-Language-Hearing Association (ASHA; hereafter, also known as “The Association”) has been committed to a framework of common principles and standards of practice since ASHA’s inception in 1925. This commitment was formalised in 1952 as the Association’s first Code of Ethics. This Code has been modified and adapted as society and the professions have changed. The Code of Ethics reflects what we value as professionals and establishes expectations for our scientific and clinical practice based on principles of duty, accountability, fairness, and responsibility. The ASHA Code of Ethics is intended to ensure the welfare of the consumer and to protect the reputation and integrity of the professions.

The ASHA Code of Ethics is a framework and focused guide for professionals in support of day-to-day decision making related to professional conduct. The Code is partly obligatory and disciplinary and

partly aspirational and descriptive in that it defines the professional's role. The Code educates professionals in the discipline, and students, other professionals, and the public, regarding ethical principles and standards that direct professional conduct.

The preservation of the highest standards of integrity and ethical principles is vital to the responsible discharge of obligations by audiologists, speech-language pathologists, and speech, language, and hearing scientists who serve as clinicians, educators, mentors, researchers, supervisors, and administrators. This Code of Ethics sets forth the fundamental principles and rules considered essential to this purpose and is applicable to the following individuals:

- a member of the American Speech-Language-Hearing Association holding the Certificate of Clinical Competence (CCC)
- a member of the Association not holding the Certificate of Clinical Competence (CCC)
- a nonmember of the Association holding the Certificate of Clinical Competence (CCC)
- an applicant for certification, or for membership and certification

By holding ASHA certification or membership, or through application for such, all individuals are automatically subject to the jurisdiction of the Board of Ethics for ethics complaint adjudication. Individuals who provide clinical services and who also desire membership in the Association must hold the CCC. The fundamentals of ethical conduct are described by Principles of Ethics and by Rules of Ethics. The four Principles of Ethics form the underlying philosophical basis for the Code of Ethics and are reflected in the following areas: (I) responsibility to persons served professionally and to research participants, both human and animal; (II) responsibility for one's professional competence; (III) responsibility to the public; and (IV) responsibility for professional relationships. Individuals shall honour and abide by these Principles as affirmative obligations under all conditions of applicable professional activity. Rules of Ethics are specific statements of minimally acceptable and unacceptable professional conduct.

The Code is designed to provide guidance to members, applicants, and certified individuals as they make professional decisions. Because the Code

is not intended to address specific situations and is not inclusive of all possible ethical dilemmas, professionals are expected to follow the written provisions and to uphold the spirit and purpose of the Code. Adherence to the Code of Ethics and its enforcement results in respect for the professions and positive outcomes for individuals who benefit from the work of audiologists, speech-language pathologists, and speech, language, and hearing scientists.

Responsibility to Persons Served

This principle emphasises the responsibility of professionals to prioritise the welfare of individuals they serve, including clients, patients, and research participants, as well as the humane treatment of animals involved in research.

Specificity:

Competence: professionals must provide clinical services and scientific activities competently, ensuring the highest quality of care.

Non-discrimination: services must be delivered without discrimination based on race, ethnicity, gender, age, religion, national origin, disability, or other personal characteristics.

Representation: accurate representation of the credentials of aides, assistants, and other support personnel.

Delegation: tasks can be delegated to qualified and supervised personnel; however, responsibilities that require professional judgement must not be delegated.

Informed consent: professionals must obtain informed consent from clients, explaining the nature, risks, and potential benefits of services.

Confidentiality: safeguarding the confidentiality of client information and records.

Ethical conduct: Ensuring honest and ethical practices in all professional activities.

Professional Competence and Performance

This principle focuses on maintaining and enhancing professional competence and performance.

Specificity:

Scope of practice: professionals must only engage in activities within their scope of competence, based on their education, training, and experience.

Lifelong learning: commitment to continuous professional development and education.

Compliance with regulations: adherence to institutional, state, and federal regulations, especially in research involving human and animal subjects.

Supervision: proper supervision of staff to ensure services are provided competently.

Use of technology: employing technology and instrumentation appropriately and ensuring they are well-maintained and calibrated.

Responsibility to the Public

This principle pertains to the professionals' responsibility to the public, emphasising honesty and integrity in all communications and interactions.

Specificity:

Accurate representation: avoiding misrepresentation of credentials, competence, and services.

Conflict of interest: avoiding situations where personal or financial interests might compromise professional judgement.

Fraud and misrepresentation: prohibiting fraudulent activities and ensuring honesty in all professional statements and advertising.

Public statements: providing accurate, complete, and honest information about the profession, services, and products.

Professional Relationships

This principle addresses the conduct of professionals in their relationships with colleagues, clients, and other professionals.

Specificity:

Collaboration: promoting collaborative and harmonious relationships within and across professions.

Professional judgement: exercising independent professional judgement, especially when faced with administrative mandates or external pressures.

Integrity: upholding the dignity and integrity of the profession by avoiding conduct that could reflect poorly on the profession.

Credit and attribution: properly attributing credit for contributions to publications, presentations, and other professional outputs.

Harassment and discrimination: prohibiting any form of harassment or discrimination in professional relationships.

Reporting violations: reporting violations of the Code of Ethics to the appropriate authorities and avoiding false accusations.

These principles and their associated rules ensure that professionals adhere to high ethical standards, safeguarding the interests of those they serve and maintaining the integrity of the profession. By following these guidelines, ASHA members and certificate holders contribute to the trust and respect of the public and their professional community.

Compiled from: American Speech-Language-Hearing Association. (2016). Code of Ethics [Ethics]. URL: www.asha.org/policy/ (Accessed 05.06.2024,08:00h).

Activity 6. Read the text and complete the table.

	Statements	True	False
1	The ASHA Code of Ethics requires professionals to prioritise the welfare of their clients, patients, and research participants, ensuring humane treatment for both humans and animals involved in research.		
2	According to the ASHA Code of Ethics, it is acceptable for professionals to delegate any task to support personnel, regardless of the complexity and requirement for professional judgement.		
3	Professionals are expected to avoid any form of discrimination when providing services.		
4	The principle of professional competence and performance emphasises that professionals should engage in ongoing education and training to maintain and enhance their skills.		
5	Under the responsibility to the public principle, professionals are permitted to misrepresent their qualifications and the effectiveness of their services in promotional materials if it benefits their practice.		

Activity 7. Work in pairs. Discuss why the following things were mentioned in the text.

1. Welfare
2. Non-discrimination
3. Continuous improvement
4. Accurate representation
5. Delegation of tasks
6. Ethical conduct
7. Instrumentation
8. Personal and financial interests
9. Independent professional judgement
10. Professional outputs

Activity 8. Discuss in pairs.

1. How do professionals navigate complex ethical dilemmas in clinical settings?
2. Discuss the importance of cultural competence in providing non-discriminatory services.
3. What are the ethical considerations surrounding the use of emerging technologies in speech-language pathology and audiology?
4. How do professionals maintain independent clinical judgement while adhering to administrative policies and mandates that may conflict with ethical obligations?
5. What challenges do professionals face in staying updated with advancements in their field?
6. What are best practices to protect client confidentiality in the era of digital records and online communication?

Activity 9. Translate each Russian term into its English equivalent. Provide an explanation of the equivalence, similar to the example.

Russian term	English equivalent
профессиональная честность	professional integrity

Equivalence explanation: the terms are equivalent and convey the same concept. They both refer to the adherence to moral and ethical principles within one's profession.

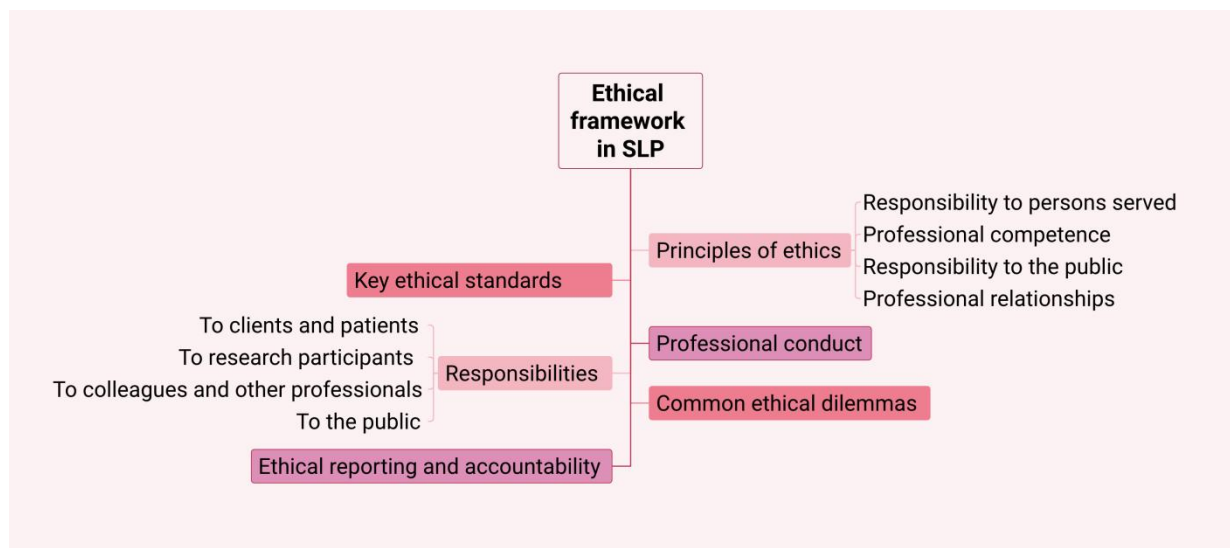
One-word terms:

этика, компетентность, дискриминация, конфиденциальность, суждение, надзор, представление, честность, согласие, уважение, ответственность, справедливость, обязанность, служба, компетенция, образование, тренировка, опыт, сотрудничество.

Terminological units:

кодекс этики, профессиональное поведение, клиническая компетентность, информированное согласие, непрерывное обучение, этические принципы, профессиональное развитие, публичные заявления, конфликт интересов, профессиональное суждение, технологические достижения, конфиденциальная информация, профессиональные отношения, роли руководства, клинические услуги, профессиональная честность, разбирательство жалоб на этику, защита прав, профессиональная автономия, соблюдение стандартов, повышение квалификации, независимое профессиональное суждение, предотвращение нарушений этики.

Activity 10. Analyse the fragment of the mind map and answer the questions in pairs.



1. How the responsibility to persons served, professional competence, public responsibility, and professional relationships shape ethical decision-making.

2. What are the key ethical standards that ensure non-discrimination and confidentiality in SLP?
3. In what ways does the commitment to lifelong learning and professional competence influence ethical conduct in SLP?
4. What responsibilities do SLP professionals have to different stakeholders (e.g., clients, colleagues, the public, research participants)?
5. How do conflicts of interest and confidentiality breaches challenge ethical practice in SLP?

Activity 11. Work in groups. Expand the mind map “Ethical framework in SLP” by including additional details and examples for each subcategory.

Activity 12. Present your mind maps to the class.

Activity 13. Discuss in pairs.

1. How can the ethical standards in SLP be effectively communicated to new professionals entering the field?
2. How can SLP professionals balance the need for innovative practices while maintaining ethical standards?
3. How do personal values influence the ethical decision-making process in SLP?

Activity 14. Reflect on a personal experience involving an ethical dilemma in your professional practice. Analyse your decision-making process and consider the lessons learnt.

Unit 46. Maximising Your SLP Career Potential

Activity 1. Discuss in pairs.

1. How can continuous learning impact your effectiveness and satisfaction as an SLP?
2. How can collaboration with professionals from other disciplines enrich your practice and understanding?

Activity 2. Categorise each term according to its relation to career development in SLP under the appropriate heading in the table.

Terms: continuous learning, ethical dilemma, informed consent, interdisciplinary collaboration, professional burnout, swallowing disorders, technological advancements, clinical competence, patient care, professional development, code of ethics, professional conduct, lifelong learning, ethical principles, public statements, conflict of interest, professional judgement, confidential information, professional relationships, supervisory roles, clinical services, professional integrity, prevention of ethical violations.

Professional growth	Challenges in SLP	Patient care	Collaboration and technology

Activity 3. Work in pairs. Complete the K-W-L chart by listing what you already know about SLP career potential and noting your questions on the topic. After completing the unit, fill in what you have learnt in the third column.

K-W-L chart on language disorders

K - Know	W - Want to know	L- learnt

Activity 4. Watch the video “How to Make the Most Out of an SLP Career.”⁶ What does Theresa Richard emphasise the importance of interdisciplinary collaboration in maximising professional potential for SLPs?



Activity 5. Watch the video again and complete the table.

	Statement	True	False
1	Continuous learning is unnecessary once an SLP has gained sufficient experience.		
2	Theresa Richard stresses that SLPs should actively seek new challenges and roles to prevent burnout.		
3	Collaboration with other healthcare professionals can significantly enhance an SLP’s knowledge and skills.		
4	Theresa Richard believes technological advances have minimal impact on the evolution of SLP practices.		
5	Immersing oneself in interdisciplinary collaboration can lead to a deeper understanding of patient care.		

Activity 6. Work in pairs. Discuss why the following things were mentioned in the video. Watch again and check your answers.

⁶ URL: <https://youtu.be/0Y0ar8V6nkA?si=OYbj81O15T4kbZgV> (Accessed 30.04.2024, 10:00h).

1. Burnouts
2. Reflecting on professional failures
3. Adapting to new roles
4. Mentorship
5. Networking opportunities
6. Community of colleagues
7. Continuous learning

Activity 7. Complete the table, using one word in each gap.

Aspect of professional development	Description	Impact on SLP	Improvement focus
Continuous learning	Importance of (1) _____ new knowledge and skills.	Stays (2) _____ in the field.	Engage in lifelong (3) _____.
Interdisciplinary collaboration	Working with (4) _____ healthcare professionals.	Gains broader (5) _____.	Foster collaborative (6) _____.
Technological advancements	Keeping up with (7) _____ technologies.	Enhances service (8) _____.	Implement new (9) _____.
Preventing burnout	Seeking new (10) _____ and roles.	Maintains (11) _____ and satisfaction.	Take on new (12) _____.

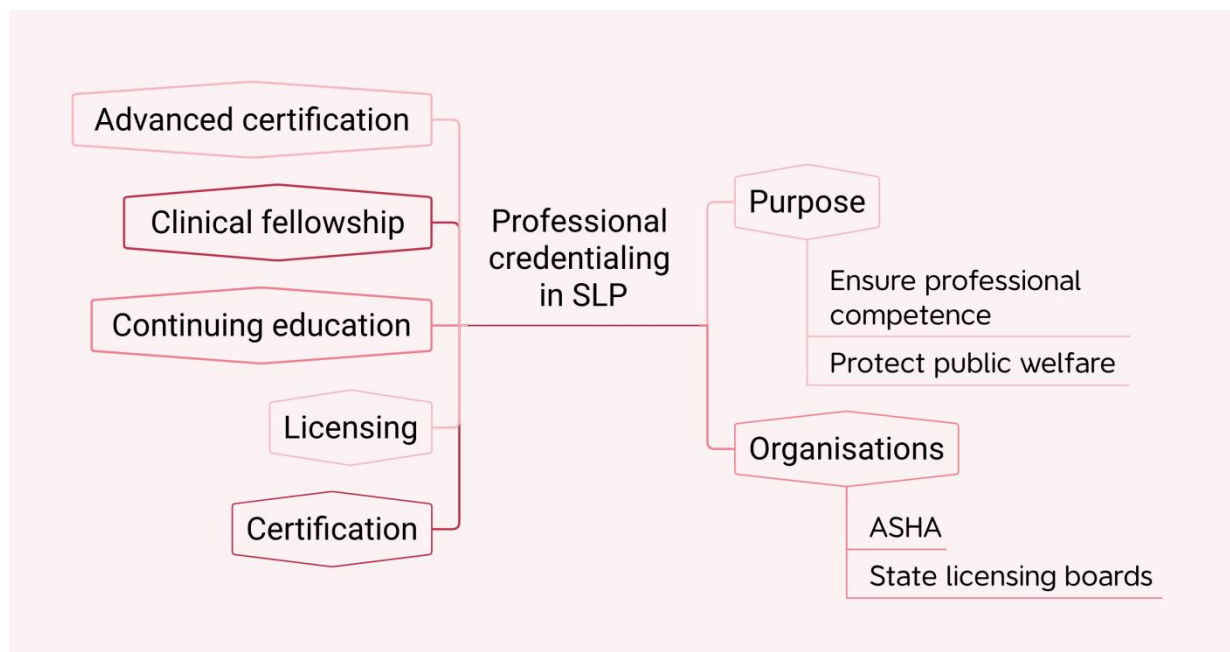
Activity 8. Work in pairs. Discuss the questions.

1. Discuss specific examples from the video where continuous learning led to improved patient care or professional growth.
2. Share your thoughts on how adapting to new roles can affect your professional development and personal well-being.
3. Discuss the role of mentorship and professional networks in supporting your career advancement.

Activity 9. Use reliable sources to find definitions and explanations for each term related to professional development in SLP. Complete the table.

Term	Definition	Source
Clinical fellowship		
Board certification		
Interdisciplinary team		
Clinical competence		
Licensure renewal		
Supervision		
Professional networking		
Research participation		

Activity 10. Choose one aspect related to professional credentialing in SLP and research it in depth. Expand the mind map given below.



Activity 11. Present your findings to the class. Include definitions, examples, and real-world applications of the chosen category.

Activity 12. Study the researching professional development framework (Lindsay et al., 2017) and develop a personalised plan of your research-related professional development goals and strategies in the field of SLP.



Source: Maina M., Guàrdia L. Good practices in European Short Learning Programmes (E-SLP) in The Envisioning Report for Empowering Universities 3rd edition. 2019.

Activity 13. Present your research professional development plan.

Activity 14. Reflect on the important things about career potential in SLP that you have learnt. How do they relate to your personal career goals?

Unit 47. Strategies for Building Professional Network

Activity 1. Work in groups. Discuss the questions.

1. Why is having an online professional profile important for your career development and networking today?
2. Do you have a professional social media profile? If so, how has it helped you promote your work and connect with others in your field?

Activity 2. Read Dr Emily Carter's professional profile. Does the profile effectively engage potential employers, colleagues and clients? Why?

Dr Emily Carter, CCC-SLP

Speech-language pathologist | paediatric communication disorders specialist

As an SLP, my mission is to empower children and their families through effective communication strategies and support. I believe in the power of early intervention and am passionate about staying at the forefront of research and innovative practices in the field.

Education

Doctor of Speech-Language Pathology (SLPD)

Northwestern University, Evanston, Illinois

Graduated: May 2012

Master of Science in Speech-Language Pathology (MS)

University of Wisconsin-Madison, Madison, Wisconsin

Graduated: May 2007

Bachelor of Arts in Communication Sciences and Disorders (BA)

University of Minnesota, Minneapolis, Minnesota

Graduated: May 2005

Certifications

Certificate of Clinical Competence in Speech-Language Pathology
(CCC-SLP) from ASHA

Licensed Speech-Language Pathologist in the state of Illinois

Certified Early Intervention Specialist

Professional Experience

Lead Speech-Language Pathologist

Chicago Pediatric Therapy Center, Chicago, Illinois

June 2015 - Present

Speech-Language Pathologist

Evanston Children's Hospital, Evanston, Illinois

August 2008 - May 2015

Clinical Fellow (CFY)

Madison Speech and Hearing Clinic, Madison, Wisconsin

June 2007 - July 2008

Skills:

Paediatric speech and language assessment

Early intervention strategies

Family-centred therapy approaches

AAC

Professional Affiliations:

American Speech-Language-Hearing Association (ASHA)

Illinois Speech-Language-Hearing Association (ISHA)

National Early Childhood Intervention Association (NECIA)

Publications:

Research article: The Impact of Early Intervention on Language Outcomes in Children with Autism Spectrum Disorder. *Journal of Speech, Language, and Hearing Research*. 2019. № 2(56). Pp. 45 - 53.

Contact Information:

Email: emily.carter.slp@gmail.com

Phone: (312) 555-6789

Activity 3. Work in pairs. Discuss why the following things were mentioned in the profile.

1. Paediatric communication disorders specialist
2. Early intervention strategies
3. AAC

4. CFY
5. CCC-SLP
6. Family-centred therapy approaches
7. Paediatric speech and language assessment

Activity 4. Discuss in pairs.

1. Does the profile provide a clear and detailed summary of Dr Carter’s professional background?
2. Are Dr Carter’s educational qualifications and professional experiences relevant and well-documented?
3. Does the profile highlight Dr Carter’s key skills and certifications effectively?
4. Is the contact information complete and appropriate for professional networking?
5. How well does the profile communicate Dr Carter’s career goals and professional philosophy?
6. Is there additional information that could be included to better highlight Dr Carter’s qualifications and achievements?

Activity 5. Analyse the structure of the professional profile to evaluate how information is organised and presented. Complete the table.

Section	Description	Effectiveness (0-5)	Suggestions for improvement
Headline and summary			
Education			
Certifications			
Professional experience			
Skills			
Affiliations			
Publications			
Contact information			

Activity 6. Examine the following phrases from the profile and explain their meanings and implications.

1. Experienced speech-language pathologist specialising in paediatric communication disorders.
2. Committed to providing evidence-based therapy to help children achieve their full communicative potential.
3. Conduct comprehensive speech and language evaluations for children aged 0-18.
4. Develop and implement individualised therapy plans based on evidence-based practices.
5. Licensed Speech-Language Pathologist in the state of Illinois.
6. Collaborate with multidisciplinary teams to provide holistic care.
7. Certified Early Intervention Specialist.
8. My mission is to empower children and their families through effective communication strategies and support.
9. I believe in the power of early intervention and am passionate about staying at the forefront of research and innovative practices in the field.

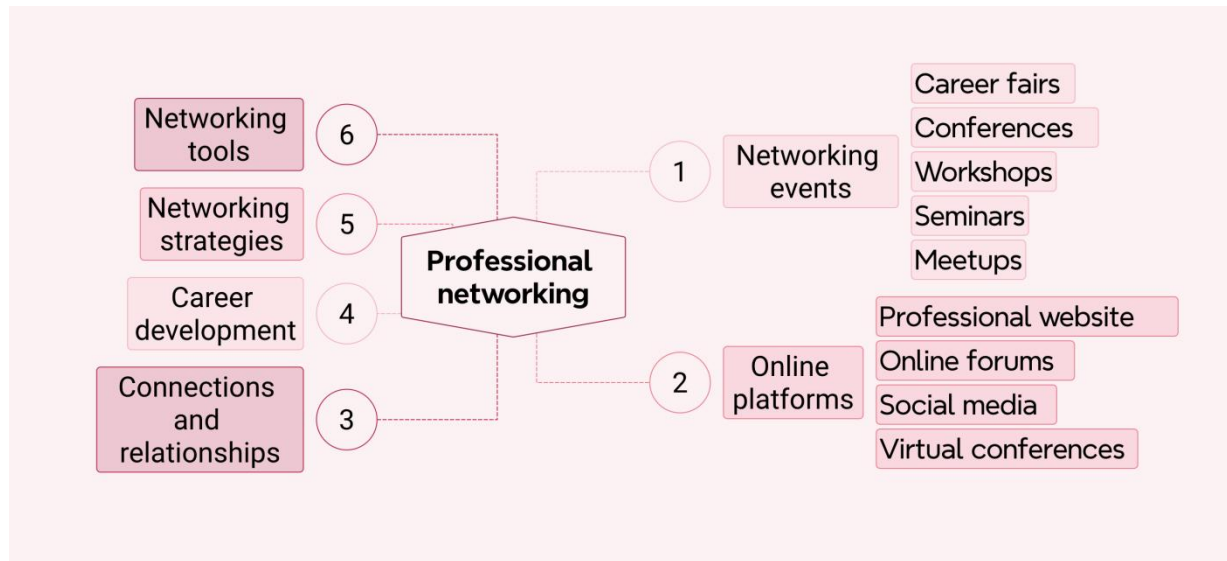
Activity 7. Use the Corpus of Contemporary American English (COCA) to explore the frequency, collocations, and contextual usage of each phrase listed below. Complete the table.

Phrase	Discipline	Collocations	Frequency	Contextual usage
Professional network				
Career development				
Networking event				
Mentorship opportunities				
Professional growth				

Activity 8. Work in groups. Brainstorm terms related to professional networking in SLP. Discuss how terms relate to each other. Use arrows or lines to show connections:

e.g., networking event → facilitates → professional connections

Activity 9. Work in groups. Organise your ideas and expand the mind map below.



Activity 10. Use reliable resources to research different professional networking strategies. Focus on understanding effective techniques, tools and platforms for networking.

Activity 11. Prepare a brief presentation of your research findings. Highlight the key networking strategies and their implications for career development.

Activity 12. Write an engaging professional profile for a social media platform, highlighting your skills, experiences and career aspirations. Follow the plan below to draft each section.

Plan:

1. Headline
2. Summary/about me
3. Experience

4. Education
5. Skills
6. Certifications
7. Professional affiliations
8. Contact information

Activity 13. Present your professional profile to the class. Provide a brief explanation of your career goals and what you hope to achieve through networking.

Activity 14. Prepare and deliver a 1-minute elevator pitch to the group. Practise introducing yourselves, highlighting key skills and stating what you are looking for in a professional connection.

Activity 15. Attend a mock networking event. Move around the room, engaging in brief conversations with other students.

Use the following prompts to guide conversations:

1. What inspired you to pursue your current career path?
2. Can you share a recent professional accomplishment?
3. What are your current professional goals?
4. How can we support each other in our professional development?

Unit 48. Conflict Resolution in Clinical practice

Activity 1. Discuss in pairs.

1. How would you handle a situation where a family disagrees with your treatment plan?
2. How would you approach a disagreement with a colleague about a patient's treatment plan?
3. What skills do you think are essential for resolving conflicts in clinical practice?

Activity 2. Read the text. What strategies can individuals employ to transition from aggressive conflict resolution styles towards a more assertive approach?

Healthcare Conflict Categories and Resolution Strategies

Healthcare environments are susceptible to various forms of conflict, categorised primarily into territory, technique, and tone, each requiring distinct resolution strategies to maintain effective collaboration among healthcare professionals.

Territory conflicts arise when perceptions of job roles, schedules, or workspace boundaries are challenged. For instance, overlapping therapy goals or disputes over resource allocation like therapy rooms often lead to tensions among disciplines. Effective resolution strategies emphasise clear role delineation, open communication regarding schedules, and mutual respect for each other's responsibilities. This approach ensures that conflicts are preemptively addressed through proactive communication and coordination.

Technique conflicts manifest when there are doubts about the competence, efficiency, or empathy of a healthcare provider's actions. Examples include concerns over treatment methods, missed care opportunities, or perceived negligence in patient care plans. Resolution strategies focus on maintaining high standards of professional competence, articulating the rationale behind clinical decisions, and fostering a deeper understanding of each discipline's contributions to patient care. By promoting ongoing education and dialogue, healthcare teams can mitigate technique conflicts and build trust in their collective expertise.

Tone conflicts stem from inappropriate or disrespectful communication styles that hinder effective teamwork. These conflicts can arise from aggressive demands, passive-aggressive behaviours, or misunderstandings in conveying professional expectations. Effective resolution strategies involve promoting assertive communication techniques, acknowledging diverse communication preferences, and cultivating a supportive team culture where concerns are addressed constructively. By encouraging open dialogue and respectful interactions, healthcare professionals can mitigate tone conflicts and enhance team cohesion.

Leadership styles play a crucial role in conflict resolution within healthcare settings, categorised into passive, aggressive, and assertive approaches. Passive individuals tend to avoid conflict, potentially exacerbating issues by not addressing underlying tensions. Aggressive individuals confront conflicts directly but may escalate situations through abrasive communication or unilateral decision-making. In contrast, assertive leaders navigate conflicts thoughtfully, considering timing, approach, and the emotional impact of their communication. They prioritise collaborative problem-solving, respect diverse viewpoints, and promote a culture of accountability and mutual support.

Strategies for conflict resolution vary based on individual leadership styles and the nature of the conflict at hand. For passive individuals, strategies include practising assertiveness in communication, engaging in proactive dialogue to address concerns promptly, and setting clear boundaries to prevent exploitation of their accommodating nature. By advocating for their needs and actively participating in decision-making processes, passive individuals can assert their contributions to team dynamics without compromising professional relationships.

Aggressive individuals benefit from strategies that promote active listening, patience in conflict resolution, and the recognition of diverse communication styles within interdisciplinary teams. By tempering their assertiveness with empathy and understanding, aggressive leaders can foster a more inclusive and supportive work environment where all team members feel valued and heard.

Effective conflict resolution in healthcare environments requires a multifaceted approach that acknowledges the diverse nature of conflicts and leadership styles present within interdisciplinary teams. By addressing

territory, technique, and tone conflicts through proactive communication, mutual respect, and assertive leadership, healthcare professionals can promote a culture of collaboration, continuous improvement, and patient-centred care. Embracing these strategies fosters a supportive work environment where conflicts are opportunities for growth and innovation rather than sources of division and discord.

Compiled from: Rollins M. Successful conflict management within multidisciplinary teams. SpeechPathology.com. (2022, June 6). URL: <https://www.speechpathology.com/articles/successful-conflict-management-within-multidisciplinary-20517> (Accessed 29.05.2024, 16:45h).

Activity 3. Work in groups. Discuss the questions.

1. How can healthcare teams delineate job roles and responsibilities to prevent territory conflicts?
2. In what ways can healthcare professionals ensure that their treatment methods and care plans are understood and respected by their colleagues to minimise technique conflicts?
3. How can healthcare teams foster a culture of respectful and constructive communication?
4. Compare and contrast passive, aggressive, and assertive leadership styles in the context of conflict resolution within healthcare settings. How do these styles influence team collaboration and conflict outcomes?
5. How can aggressive leaders adapt their approach to create a more inclusive and supportive work environment?

Activity 4. Collaborative project. Create a structured conflict resolution protocol adapted to the clinic's needs. Include methods for early identification of potential conflicts and steps for resolution.

In a paediatric rehabilitation clinic, frequent miscommunications and conflicts arise during interdisciplinary meetings about therapy plans and scheduling. Common types of conflicts include disagreements over therapy priorities, scheduling clashes, and unclear communication of patient needs. These conflicts disrupt scheduling, leading to inefficiencies and compromised patient care.

Guidelines:

1. Analyse common sources of miscommunication and conflicts in team meetings. Gather information from SLPs, occupational therapists, educational specialists and administrative staff.
2. Create a structured conflict resolution protocol adapted to the clinic's needs. Include methods for early identification of potential conflicts and steps for resolution. Incorporate regular interdisciplinary training sessions focusing on conflict resolution skills.
3. Designate a conflict resolution coordinator to oversee the implementation and adherence to the new protocols.

Activity 5. Present the designed conflict resolution protocol to clinic staff. Highlight methods for early identification of potential conflicts and steps for resolution.

Activity 6. Arrange the following phrases for conducting therapy sessions according to their function. Add more examples to the table.

1. I'm worried that increasing the therapy sessions might overwhelm the patient.
2. Could you provide more details on how this approach benefits the patient?
3. My concern is that we may not be addressing all aspects of the patient's needs.
4. What if we incorporate some elements from both of our plans?
5. You have a valid point regarding the patient's progress in other areas.
6. How can we combine our strategies to best support the patient?
7. We need a plan that addresses both speech and occupational therapy needs.
8. Would taking a short break help us return with fresh perspectives?
9. Can you summarise the patient's treatment goals?
10. Let's ensure everyone has a chance to express their concerns clearly.

Functions	Phrases
Expressing concern	
Asking for clarification	
Proposing compromises	
Acknowledging the other's perspective	
Suggesting collaboration	
Facilitating communication	

Activity 7. Prepare for the role-play according to the guidelines in your role-play card.

Scenario

In a paediatric rehabilitation clinic, two SLPs, Dr Amanda Johnson and Dr Emily Green, disagree over the treatment plan for a patient, Jack, a six-year-old with speech and language delays. The disagreement centres around the frequency and focus of the therapy sessions. Dr Johnson believes increasing the number of sessions is crucial, while Dr Roberts is concerned that this might overwhelm Jack and suggests a more balanced approach. Dr Thomas Richard is trying to help Dr Johnson and Dr Roberts find a mutually agreeable solution for Jack's treatment plan.

Role card 1	Role card 2	Role card 3
<p>Role: Dr Johnson Goal: emphasise Jack's progress and the potential benefits of more intensive therapy. Present evidence supporting the effectiveness of increased frequency. Express concerns</p>	<p>Role: Dr Green Goal: highlight the importance of not overwhelming Jack with too many sessions. Present evidence where a balanced approach has worked effectively. Express concerns about</p>	<p>Role: Dr Richard (mediator, clinic director) Goal: ensure both SLPs have a chance to express their concerns and suggestions. Focus on Jack's best interests and overall well-being. Guide the</p>

about potential setbacks if the therapy is not intensified.	Jack's overall well-being and his ability to handle the intensity.	discussion towards a collaborative and balanced solution.
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Activity 8. Role-play the mediation session aiming to help colleagues resolve their miscommunication regarding a patient's treatment plan. Use the phrases.

Activity 9. Discuss in groups.

1. How effective the proposed conflict resolution strategies were in addressing the miscommunication between the SLPs in the role-play? What other strategies could be useful in similar scenarios?
2. What were the primary communication barriers identified in the role-play scenario?
3. How can these barriers be minimised in a real clinical setting?
4. What skills are essential for a mediator to successfully resolve conflicts in a clinical environment?

Activity 10. Reflect on your current conflict resolution skills. What steps will you take to develop your conflict resolution skills further?

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GLOSSARY

AAMD – American Association of Mental Deficiency.

Abduction – a drawing away from the midline of the body or a moving away from each other, e.g., he has two vocal folds.

Ability Test – a test designed to measure maximum performance that reveals the present level of functioning, e.g., a test of motor ability.

Acquired Communication Disorder – a problem with speech, language, voice, pragmatics, or fluency that develops after a person has developed language. Contrasted with a *developmental* communication disorder. Typically refers to aphasia, dysarthria, apraxia of speech, cognitive-communication disorders that occur after an acquired brain injury.

Augmentative and Alternative Communication (AAC) – all forms of communication (other than oral speech) that are used to express thoughts, needs, wants, and ideas. This includes facial expressions, gestures, symbols, pictures, writing, and speech-generating devices.

Adduction – a drawing toward the middle of the body or a bringing toward each other, e.g., the two vocal folds.

Attention Deficit Hyperactivity Disorder (ADHD) – a condition that affects people's behaviour. People with ADHD can seem restless, may have trouble concentrating and may act on impulse.

Advanced Instrumentation – use of sophisticated tools and technology to assess and diagnose speech and language disorders.

Agnosia – inability to recognise or attach meaning to sensory information, although the physiologic receptor mechanism is intact. Usually associated with a central nervous system disorder.

Alexia – the inability to read or understand written words, typically caused by brain damage.

Alveolar – a class of sounds made when the tongue touches or is close to the bumpy front part of the roof of the mouth, called the alveolar ridge. English alveolar consonants include /n, t, d, s, z, ch, l, r/.

Alzheimer’s Disease – the most common type of dementia, often recognised by declining short-term memory in the early stages. Like all dementias, people with Alzheimer’s get worse over time as it is a degenerative condition.

Amyotrophic Lateral Sclerosis (ALS) – a progressive neurodegenerative disease that affects nerve cells in the brain and spinal cord, leading to loss of muscle control and speech difficulties.

Aphasia – an acquired language disorder caused by damage to the language centres of the brain. Aphasia can impact auditory comprehension, verbal expression, reading, writing, and use of symbols. It does not affect intelligence.

Apraxia of Speech (AOS) – an acquired motor speech disorder that impairs the ability to form and execute the motor plans for speech.

Articulation – the movement of the tongue, lips, and jaw to make speech sounds. Articulation is one part of the whole speech process that includes respiration, phonation, articulation, resonance, and prosody. Articulation problems are common after a stroke or brain injury as part of dysarthria.

Articulation Disorder – a type of speech disorder where a person has difficulty pronouncing certain sounds.

Articulators – organs of the speech mechanism which produce meaningful sound by interrupting the flow of exhaled air or by narrowing the space for its passage; i.e. lips, lower jaw, velum, tongue, and pharynx. Some authorities include the cheeks, hyoid bone, larynx, uvula, alveolar ridge, nose, teeth, and sinuses.

Autism Spectrum Disorder (ASD) – a developmental disorder that affects communication and behaviour, often characterised by difficulties in social interaction and communication.

ASHA – the American Speech-Language-Hearing Association is the organisation that certifies Speech-Language Pathologists in the United States. The annual ASHA convention is held every year in November in various locations around the country, featuring continuing education and an exhibit hall for 10,000–14,000 attending speech pathologists, audiologists, and students.

Assessment – the evaluation phase of therapy in which a speech therapist determines whether an impairment exists, the degree and nature of the impairment, and sets the direction for therapy, usually with a written report summarising the findings. Assessments may include formal or standardised tests or may be informal, consisting of an interview or a variety of non-standardised tasks. Many assessments include a combination of formal and informal measures.

Ataxic Dysarthria – dysarthria associated with cerebellar damage, affecting coordination.

Auditory Comprehension – understanding words through listening. Auditory comprehension is often impaired in aphasia. It can be relatively intact for single words or simple sentences, but impaired for complex sentences, grammatical words, or when there are background distractions.

Auditory Processing Disorder (APD) – a condition in which the brain has difficulty processing and interpreting auditory information. Individuals with APD typically have normal hearing but struggle to understand and make sense of sounds, especially in noisy environments.

Auditory Rehabilitation Therapy (ART) – a type of therapy designed to help individuals with hearing loss develop or regain listening skills and improve communication abilities.

Augmentative and Alternative Communication (AAC) – communication methods used by a person with a communication disorder to enhance or replace spoken or written communication. AAC can be *unaided* or *aided* by a device or communication tool. AAC can be *low-tech* (paper or equivalent) or *high-tech* (computer, smartphone, or dedicated device).

Babbling – prelinguistic verbal conduct of infants during the second half of the first year of life.

Beery-Buktenica Developmental Test of Visual-Motor Integration (VMI) assesses the integration of visual and motor skills. It involves copying geometric shapes to evaluate how well the visual and motor systems coordinate.

Blends – see *consonant clusters*

Broca's Aphasia – primarily an expressive language impairment, meaning it mostly affects speaking and writing – the two ways we produce, or express, language. Comprehension of language remains relatively intact in Broca's aphasia, while repetition of words and sentences is usually poor. People with Broca's aphasia are often very aware of their difficulties, and that can lead to high levels of frustration and sometimes depression.

Caregiver – a person who provides care for a person with a disability. A caregiver can be a spouse, sibling, parent, or friend and a paid caregiver hired to care for a person. Also called a carer or care partner.

Clinical Evaluation of Language Fundamentals, Fifth Edition (CELF-5) is a standardised assessment tool used by speech-language pathologists to evaluate a child's expressive and receptive language skills. It includes a battery of tests to assess various aspects of language, such as semantics, morphology, syntax, and pragmatics.

Central Auditory Processing Disorder (CAPD) – a breakdown of auditory information processing in the central nervous system, despite normal peripheral hearing. It affects the brain's ability to process or interpret auditory information effectively, leading to difficulties in understanding speech, especially in challenging listening environments.

Central Nervous System – the part of the nervous system consisting of the brain and spinal cord.

Cerebral Palsy – a group of disorders that affect movement and muscle tone or posture, caused by damage that occurs to the immature brain as it develops, most often before birth.

Certificate of Clinical Competence in Speech-Language Pathology (CCC-SLP) – a nationally recognised professional credential that represents a level of excellence in the field of Speech-Language Pathology.

Childhood Apraxia of Speech (CAS) – is a neurological childhood (paediatric) speech sound disorder in which the precision and consistency of movements underlying speech are impaired in the absence of neuromuscular deficits (e.g. abnormal reflexes, abnormal tone).

Clinical Expertise – the knowledge and skills that clinicians acquire through training and practice in the field of speech-language pathology.

Clinical Fellowship Year (CFY) – a supervised postgraduate professional experience required for speech-language pathologists to obtain their Certificate of Clinical Competence (CCC-SLP).

Clinical Swallowing Examination (CSE) – a bedside evaluation that includes a comprehensive history, physical examination, and observation of swallowing with different consistencies of food and liquid. It helps identify signs and symptoms of dysphagia and the need for further instrumental assessment.

Cognition – the mental processes related to knowledge, including awareness, attention, perception, reasoning, memory, language, and judgement.

Cognitive Behavioural Therapy (CBT) – a form of psychological treatment that has been demonstrated to be effective for a range of problems including depression, anxiety disorders, alcohol and drug use problems, marital problems, eating disorders, and severe mental illness. CBT is based on several core principles, including that psychological problems are based, in part, on faulty or unhelpful ways of thinking and on learned patterns of unhelpful behaviour.

Communication – the transmission of a message from a sender to a recipient through a medium (e.g. verbal, non-verbal, written).

Communication Disorder – any disorder that impairs communication. Communication disorders may affect speech (speech-sound disorder, articulation disorder, motor speech disorder, apraxia of speech), language (aphasia, expressive language disorder), pragmatics (autism, frontal head injury), fluency

(stuttering), literacy (dyslexia, agraphia, alexia), cognition (dyscalculia, dementia), or voice.

Comorbid Conditions – the presence of one or more additional conditions co-occurring with a primary condition.

Conners Comprehensive Behaviour Rating Scales (CBRS) – a tool used to assess a wide range of behavioural, emotional, and social issues in children and adolescents. It is used in various settings, such as schools and clinics, to support diagnosis and guide intervention for conditions like ADHD.

Consonant – a speech sound in which the air is partially obstructed. Consonants combine with vowels to make syllables or with other consonants to form clusters.

Consonant Cluster – two or more consonant sounds appearing next to each other with no vowel separation.

Conversation - the exchange of ideas through language. The end goal of speech therapy in many cases.

Co-occurring Conditions – co-occurring disorder refers to having a co-existing mental illness and substance use disorder. While commonly used to refer to the combination of substance use and mental disorders, the term can also refer to other combinations of disorders, such as a mental disorder and an intellectual disability.

Coping Strategies – techniques and methods that individuals use to manage stress, adapt to challenges, and maintain emotional well-being. In the context of speech and language difficulties, coping strategies can include seeking support from speech-language therapists, using communication aids, and practising relaxation techniques.

Craniofacial Conditions, including **cleft lip** and **palate**, – congenital structural anomalies caused by atypical embryological development.

Cyclic Schedule – a therapy approach where different speech or language targets are addressed in rotation over a period of time, allowing for distributed practice across multiple skills.

Diadochokinetic (DDK) Rates – a measure of how quickly and accurately a person can produce rapid, alternating movements with their speech muscles. DDK rates are often used to assess the functionality and coordination of the speech musculature and are useful in diagnosing motor speech disorders, such as dysarthria and apraxia of speech.

Degenerative Disease – a medical condition that gets worse, or progresses, over time. Often speech therapy for people with degenerative disorders will focus on teaching strategies that can be used by the person or family as skills deteriorate. Dementia, Parkinson's, ALS, cancer, and PPA are progressive conditions that can affect communication.

Dementia – an umbrella term for a set of degenerative brain disorders that often affect memory and thinking skills first, before impacting language, emotions, and motivation.

Developmental Coordination Disorder (DCD) – a motor skills disorder that affects coordination and the ability to perform daily activities.

Developmental Coordination Disorder Questionnaire (DCDQ) – a parent-report measure used to screen for coordination disorders in children aged 5 to 15 years. It assesses functional motor skills in various contexts.

Developmental Language Disorder (DLD) – a communication disorder that interferes with learning, understanding, and using language. These language difficulties are not explained by other conditions, such as hearing loss or autism, or by extenuating circumstances, such as lack of exposure to language.

Digital Therapeutics in SLP are evidence-based therapeutic interventions driven by high-quality software programs to prevent, manage, or treat speech and language disorders. These may include mobile apps or computer-based programs designed to support speech and language development.

DSM-5-TR – the standard classification of mental disorders used by mental health professionals in the United States.

Dysarthria – term for a collection of motor speech disorders due to impairment originating in the central or peripheral nervous system. Respiration, articulation, phonation, resonance, or prosody may be affected. Violation and automatic

actions, such as chewing and swallowing, and movements of the jaw and tongue may also be deviant. It excludes apraxia and functional or central language disorders.

Dysarthria Examination Battery (DEB) – assesses speech characteristics and the physiological bases of dysarthria.

Dyscalculia – a learning disability that affects the ability to understand and perform mathematical calculations.

Dysgraphia – a learning disability that affects writing abilities, including handwriting, typing, and spelling.

Dyslalia – 1. Articulatory disorder for which no physiologic cause can be determined. 2. Functional articulatory disorders.

Dyslexia – a learning disorder characterised by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities.

Dysphagia – difficulty in swallowing; may include inflammation, compression, paralysis, weakness, or hypertonicity of the oesophagus.

Dysphonia – the loss of the normal timbre of the voice due to a functional or organic disorder of the larynx.

Evidence-Based Practice (EBP) – an approach to clinical practice that values research and evidence of efficacy above tradition when making treatment decisions. Evidence exists along a hierarchy of strength, from clinical expertise and case studies to randomised controlled trials and meta-analyses.

Executive Functioning – the term for the overall management of tasks, including planning, reasoning, monitoring, adjusting, problem solving, and evaluating. This is the highest level of cognitive functioning and often impaired in brain injury survivors.

Expressive Aphasia – a type of aphasia characterised by effortful, non-fluent (fewer than 5 words per utterance), and agrammatic (omitting function words) speech with relatively good auditory comprehension. Syntax and grammar are often impaired for both verbal expression and auditory comprehension. Writing is

frequently more impacted than reading, though both are likely to be decreased from previous abilities.

Expressive Language Disorder – one in which the child struggles to get their meaning or messages across to other people.

Eye Gaze Technology – assistive technology that allows individuals to control a computer, tablet, or other electronic devices using their eye movements. This technology uses an **eye-tracking device** to detect where the user is looking on the screen and translates those eye movements into commands, enabling users to interact with the device without the need for physical touch.

Family Educational Rights and Privacy Act (FERPA) – a federal law that protects the privacy of student education records. In SLP, it applies to educational institutions and governs the handling of student information, including speech and language assessments and interventions conducted in school settings.

Fiberoptic Endoscopic Evaluation of Swallowing (FEES) – procedure that involves the insertion of a flexible endoscope through the nose to visualise the pharynx and larynx during swallowing. It helps assess the presence of aspiration, residue, and the effectiveness of various swallowing manoeuvres.

Flaccid Dysarthria – a type of dysarthria characterised by weakness or reduced muscle tone.

Fluency of Speech – the flow and ease of speech output, which can be disrupted in aphasia, leading to halting, effortful speech, or excessive, nonsensical output.

Fluency Disorder – when you have a fluency disorder it means that you have trouble speaking in a fluid, or flowing, way. You may say the whole word or parts of the word more than once, or pause awkwardly between words. This is known as **stuttering**. You may speak fast and jam words together, or say “uh” often. This is called **cluttering**.

Foetal Alcohol Syndrome (FAS) – a congenital syndrome caused by excessive consumption of alcohol by the mother during pregnancy, characterised by retardation of mental development and of physical growth, particularly of the skull and face of the infant. Implications for speech and language include receptive and expressive language delays, speech disorders such as deficits in

fluency, voice, intonation, and articulation, and verbal learning and memory deficits.

Frenchay Dysarthria Assessment (FDA-2) – evaluates the severity and type of dysarthria.

Functional Behavioural Assessment (FBA) – a process for gathering information about behaviours of concern, whether the behaviours are academic, social or emotional.

Functional Phonological Disorder – a type of speech sound disorder where a child has difficulty using sounds correctly in words. This disorder is not due to any physical or neurological cause but rather involves problems with the mental representation of sounds and the rules for sound patterns in speech.

GFTA-3 (Goldman-Fristoe Test of Articulation - 3rd Edition) – a standardised assessment designed to evaluate speech sound production skills in children from ages 2 to 21 years 11 months. It measures the client's ability to produce consonant and vowel sounds across word positions and helps diagnose articulation and phonological disorders.

Global Development Delay – the term is used when a child takes longer to reach certain development milestones than other children their age.

Hearing Impairments – partial or total inability to hear, affecting communication and language development.

Health Insurance Portability and Accountability Act (HIPAA) – a federal law that sets national standards for the protection of individuals' medical records and other personal health information. In SLP, it governs the privacy and security of patient information in healthcare settings.

Hyperkinetic Dysarthria – characterised by abnormal involuntary movements affecting respiratory, phonatory, and articulatory structures impacting speech and deglutition.

Hypernasality – occurs when there is abnormal sound energy in the nasal cavity during production of voiced, oral sounds. Hypernasality is primarily a vowel phenomenon but can occur on other voiced sounds.

Hypokinetic Dysarthria – primarily associated with Parkinson’s disease, is characterised by symptoms like reduced vocal loudness, monotone speech, and imprecise articulation. These conditions lead to decreased speech intelligibility and challenges in communication.

Hyponasality – occurs when there is reduced nasal resonance or energy associated with nasal sounds, typically due to a blockage or an obstruction in the nasopharynx or nasal cavity or related to a neurological condition.

ICD-10 – International Classification of Diseases, Tenth Revision (ICD-10).

ICD-11 – International Classification of Diseases, Tenth Revision (ICD-11).

ICF – the WHO framework for measuring health and disability at both individual and population levels. It was officially endorsed by all 191 WHO Member States in the Fifty-fourth World Health Assembly on 22 May 2001.

Individuals with Disabilities Education Act (IDEA) – a federal law in the United States that ensures services to children with disabilities throughout the nation. IDEA governs how states and public agencies provide early intervention, special education, and related services to more than 8 million eligible infants, toddlers, children, and youth with disabilities.

Individualised Education Program (IEP) – a written document for each child with a disability that is developed, reviewed, and revised in accordance with the Individuals with Disabilities Education Act (IDEA). The IEP includes the special education and related services that are designed to meet the unique needs of the child and ensure their educational progress.

Informed Consent – the process of obtaining permission from a client or their legal representative before providing assessment or treatment, after fully explaining the nature, risks, and benefits of the proposed services.

Intervention – the strategies and therapies used to treat speech, language, and communication disorders.

Intonation – the rise and fall of pitch in the voice during speech. A component of **prosody**.

Kaufman Brief Intelligence Test - Second Edition (KBIT-2) – a brief measure of verbal and nonverbal intelligence used with individuals ages 4 through 90 years. It assesses cognitive abilities through verbal and nonverbal subtests.

Kaufman Speech Praxis Test (KSPT) – a norm-referenced assessment designed to identify and treat Childhood Apraxia of Speech. It evaluates a child’s ability to plan and execute oral movements for speech production.

Language-Based Learning Disorders – disorders that affect the ability to acquire, use, and understand language, impacting reading, writing, and spelling skills.

Language Comprehension – the ability to understand spoken or written language.

Language Delay – a condition where a child’s language development is significantly behind that of their peers. This can involve difficulties with understanding and using spoken language, including problems with vocabulary, sentence structure, and communication.

Language Intervention – techniques used to improve language skills in individuals with communication disorders.

Language Profiles – comprehensive descriptions of an individual’s language abilities, including strengths and weaknesses.

Least Restrictive Environment (LRE) – principle that requires students with disabilities to be educated with non-disabled peers to the maximum extent appropriate.

Morphology – the study of the structure and form of words in a language, including the use of prefixes, suffixes, and root words.

Morphosyntactic Deficits refer to difficulties in understanding and using the morphological and syntactic aspects of language. This includes problems with

word formation, grammatical structures, and sentence construction, which can affect both expressive and receptive language skills.

Motor Speech Disorder – a problem producing speech, typically a type of dysarthria or apraxia. Results from neurological, neuromuscular, or musculoskeletal problems with respiration, phonation, articulation, resonance, or prosody.

Movement Assessment Battery for Children (MABC) – a standardised test used to identify motor difficulties in children and adolescents aged 3 to 16 years. It assesses manual dexterity, aiming and catching, and balance.

Nasality – the quality of voice that results from the sound resonating in the nasal cavity. Excessive nasality can occur when the velopharyngeal mechanism fails to close the nasal passage during the production of non-nasal sounds, leading to hypernasal speech.

Nasalance – a measure of the acoustic correlate of nasality, typically quantified using a nasometer. It represents the ratio of nasal acoustic energy to the total acoustic energy (nasal plus oral) emitted by the speaker. Nasalance is used to assess the degree of nasal resonance in speech.

Nasalisation – the process by which nasal airflow is added to sounds, typically vowels, due to the lowering of the velum. This can occur normally, as in the production of nasal sounds like [m], [n], and [ŋ], or abnormally, in cases of velopharyngeal dysfunction, leading to hypernasality.

Nasometry – a diagnostic tool used to measure nasal resonance during speech.

National Early Childhood Inclusion Act (NECIA) – a federal law that promotes the inclusion of young children with disabilities in early childhood programs alongside their non-disabled peers.

Neurogenic Speech Disorders – speech disorders that result from damage to the nervous system.

Neurotechnology in SLP refers to the use of advanced technologies that interface with the nervous system to assess, treat, or enhance communication abilities. This may include brain-computer interfaces or neurofeedback systems.

Neonatal Intensive Care Unit (NICU) – a specialised area within a hospital designed to provide intensive medical care for newborn infants who are premature, have low birth weight, or have health conditions that require close monitoring and specialised treatment.

Non-Academic Accommodations – modifications or supports provided to students with communication disorders outside of direct academic instruction. These may include environmental adjustments, assistive technology, or behavioural supports to facilitate participation in school activities.

Nonverbal Learning Disabilities – disorders characterised by significant deficits in motor, visual-spatial, and social skills, despite strong verbal abilities.

Occupational Therapy (OT) – a field of therapy that rehabilitates people with physical or mental illness through the performance of everyday tasks. Occupational Therapists often focus on the upper extremity (arm and hand), wheelchair mobility, activities of daily living, and visual-spatial skills in the rehab setting.

Oral Motor Exercises – exercises aimed at improving the strength, coordination, and function of the muscles used in speech.

Oral Reading for Language in Aphasia (ORLA) – a definition treatment approach for individuals with aphasia that involves repeated reading of sentences and paragraphs to improve reading comprehension and verbal expression.

Paediatric Communication Disorders – disorders that affect the ability to communicate effectively, occurring in children.

Paradoxical Vocal Fold Movement (PVFM) – a condition where the vocal folds involuntarily close during inhalation, leading to breathing difficulties, stridor, and sometimes voice changes. PVFM is often mistaken for asthma but is a distinct condition that requires specific speech therapy techniques to manage.

Parkinson's Disease – a progressive or degenerative medical condition that affects movement by affecting dopamine systems in the brain. People with Parkinson's Disease, or Parkinson's symptoms, can have speech and swallowing problems that can be helped by speech therapy.

Patient Outcome Tracking involves systematically collecting and analysing data on the progress and results of speech and language interventions. It helps SLPs measure the effectiveness of their treatments and make data-driven decisions about patient care.

Peer Support – strategy where students with similar abilities or experiences provide assistance, encouragement, and feedback to each other in the therapy or classroom setting.

Percentage of Consonants Correct (PCC) – a metric used to measure the accuracy of consonant production in speech. It is calculated by dividing the number of correctly produced consonants by the total number of consonants attempted, then multiplying by 100 to get a percentage.

Pervasive Developmental Disorder-Not Otherwise Specified (PDD-NOS) – one of several previously separate subtypes of autism that were folded into the single diagnosis of Autism Spectrum Disorder (ASD) with the publication of the DSM-5 diagnostic manual in 2013.

Pharyngeal Flap – a surgical procedure used to correct velopharyngeal insufficiency (VPI), which is the inability of the soft palate to close completely against the back of the throat during speech, resulting in air escaping through the nose and causing hypernasal speech. During the procedure, a flap of tissue is taken from the posterior pharyngeal wall and attached to the soft palate. This creates a bridge that helps close the velopharyngeal port during speech while allowing for nasal breathing and the production of nasal sounds.

Phonation – sound made when air vibrates the vocal folds in the larynx to produce speech. In some motor speech disorders, phonation is absent, impaired, or mis-timed.

Phonemes – the sounds that are distinct in a language. The word “cat” has 3 phonemes: k + æ + t. Phonemes can be written using the International Phonetic Alphabet, or IPA.

Phoniatrics – a medical specialty focused on the study, diagnosis, and treatment of voice, speech, and language disorders.

Phoniatricians – medical doctors who specialise in the medical and surgical management of these conditions, often working closely with speech-language pathologists.

Phonological Awareness – a set of skills that enable a person to hear and manipulate the sounds in words regardless of the meaning. Rhyming, alliteration, segmenting, and blending are all phonological awareness skills.

Phonological Disorder – a type of speech sound disorder. Speech sound disorders are the inability to correctly form the sounds of words. Speech sound disorders also include articulation disorder, disfluency, and voice disorders.

Physical Therapy (PT) – a field of therapy that rehabilitates people with physical impairments through exercise, massage, heat, or other treatments that are not surgery or medication. Physical Therapists often focus on transfer skills (e.g. moving from bed to chair), walking, and climbing stairs in a rehabilitation setting.

Pragmatics – the social use of language, including tone of voice, taking turns in a conversation, providing context to a story, and using words appropriate to the audience or situation. Pragmatic skills are often impaired after a brain injury or a stroke on the right side of the brain.

Pragmatic Language Disorder (also known as social communication disorder) involves difficulties with the social use of language. This includes challenges with using language for different purposes, changing language according to the listener or situation, and following rules for conversation and storytelling.

Primary Referral Resource in SLP is the initial point of contact or source of information for identifying and referring individuals who may need speech and language services. This could include paediatricians, teachers, or other healthcare professionals.

Prosody – the melody of speech, including suprasegmental features such as rate, rhythm, intonation, volume, stress, and pitch. Prosody can convey emotion, sarcasm, a question vs a statement, and energy. Brain damage can impair a person's ability to produce or understand prosody. People with Broca's aphasia or apraxia are often dysprosodic. Those with right-hemisphere damage may not understand the speaker's intent if sarcasm is used, called sensory or receptive aprosodia.

Pull-Out Model – a service delivery approach where students are removed from their regular classroom to receive speech-language therapy services in a separate location.

Push-In Model – a collaborative classroom-based service delivery model where the speech-language pathologist provides therapy within the student's regular classroom setting.

Randomised Controlled Trials – research studies that randomly assign participants to different treatment groups to compare the effectiveness of interventions. They are considered the gold standard for evaluating the efficacy of speech and language therapies.

Rapid Automatised Naming (RAN) – a task that measures how quickly individuals can name a series of familiar items, such as letters, numbers, colours, or objects. It is used to assess processing speed and is often linked to reading abilities.

Receptive Aphasia – another name for *fluent aphasia* or *Wernicke's aphasia*, used because of the marked difficulty with comprehension.

Receptive Language Disorder – is one in which a child struggles to understand and process the messages and information they receive from others. Some children have a mixed receptive-expressive language disorder in which they have symptoms of both types of disorders.

Remote Intervention in SLP, also known as telepractice, refers to the delivery of speech and language services using telecommunications technology. It allows SLPs to provide assessment, treatment, and consultation remotely when in-person services are not feasible.

Resonance – the flow of air through the nose or mouth during speech. The velum prevents air from going through the nose in all but the nasal sounds (m, n, ng) in normal speech. Cleft palate, stroke, and progressive diseases can cause disorders in resonance in speech.

Resonance Disorders – disorders that affect the quality of the voice due to abnormal airflow in the oral and nasal cavities.

Respiration – breathing, and the first component of speech production.

Response to Intervention (RTI) Process – is a type of Multi-Tiered System of Support (MTSS) for providing services and interventions to struggling learners at increasing levels of intensity. It includes: universal screening, high-quality instruction.

Royal College of Speech and Language Therapists (RCSLT) – the professional body for speech and language therapists in the United Kingdom. It promotes the study and practice of speech and language therapy, supports research, and provides guidance and resources for its members.

Screening – a pass/fail procedure to identify individuals who may need a comprehensive speech and language evaluation or referral for other services.

Self-Advocating involves effectively communicating one’s needs, desires, and rights. It is a crucial skill for individuals with communication disorders, empowering them to seek appropriate support and accommodations in various settings, including educational and healthcare environments.

Sensory Processing Disorder (SPD) – a condition where the brain has difficulty receiving and responding to information that comes in through the senses. It can affect one or more of the sensory systems and may result in over- or under-sensitivity to sensory stimuli.

Specific Language Impairment (SLI) is characterised by difficulty with language that is not caused by known neurological, sensory, intellectual, or emotional deficit. It can affect the development of vocabulary, grammar, and discourse skills, with evidence that certain morphemes may be especially difficult to acquire (including past tense, copula be, third person singular). *In recent years, the term Specific Language Impairment (SLI) has been replaced with Developmental Language Disorder (DLD).*

Speech-Generating Device (SGD) – electronic augmentative and alternative communication (AAC) systems used to supplement or replace speech or writing for individuals with severe speech impairments, enabling them to verbally

communicate. SGDs can produce electronic voice output by using digitised recordings of natural speech or through speech synthesis.

Spastic Dysarthria – a type of dysarthria related to bilateral damage of the upper motor neuron tracts of the pyramidal and extra- pyramidal tracts. Speech of affected individuals is slow, effortful, and has a harsh vocal quality.

Speech – expressing language through articulated sounds. Speech consists of respiration, phonation, articulation, resonance, and prosody. Disorders of speech may include problems with any of these areas, including fluency (stuttering or stammering) and voice.

Speech Clarity – the clearness and distinctness of speech sounds.

Speech Intelligibility – the degree to which speech is understood by a listener.

Speech and Language Therapist (SLT or SALT) – the same as a speech-language pathologist. This title is used for professionals who are trained to evaluate and treat communication and swallowing disorders in many countries such as the UK.

Speech-Language Pathologist (SLP) – the official title given to professionals who are trained to evaluate and treat communication and swallowing disorders. The term ‘Speech-Language Pathologist’ is meant to better reflect the scope of practice of professionals commonly referred to as ‘speech therapists.’ In the US and Canada, entry-level education to qualify to be a SLP is a Master’s degree.

Speech-Language Resource Room – designated space within a school where students receive specialised speech and language services, often in small groups or individually.

Speech Therapy – treatment for communication and swallowing disorders.

Stroke – an event inside the brain in which there is a sudden loss of function, also known as a brain attack or cerebrovascular attack (CVA). A stroke occurs when a part of the brain is deprived of the oxygen it needs to function properly.

Structured Classroom Layout – an organised physical environment designed to support students with communication disorders. It typically includes clearly

defined areas for different activities, visual supports, and minimised distractions to enhance learning and communication.

Stuttering – a speech disorder characterised by frequent disruptions in the flow of speech.

Subglottic Stenosis – a narrowing of the airway below the vocal cords (subglottis) and above the trachea. This condition can be congenital or acquired and can cause breathing difficulties, stridor, and voice changes. Treatment often involves surgical intervention to widen the airway.

Syntax – the rules for combining words in a language. Syntax is often impaired in non-fluent aphasia.

Tachylalia – excessively rapid speech.

Technology-Assisted Tools – devices and software used to aid in the assessment and treatment of speech and language disorders.

Test of Early Written Language (TEWL) – a standardised assessment that measures the early writing skills of children aged 4 to 10 years. It evaluates both the writing process and the written product.

Traumatic Brain Injury (TBI) – an injury to the brain caused by external force, leading to cognitive, physical, and speech impairments.

Videofluoroscopic Swallow Study (VFSS) – an imaging technique used to evaluate the swallowing process.

Vineland Adaptive Behaviour Scales (VABS) is a standardised assessment tool used to measure adaptive behaviours, including communication, daily living skills, socialisation, and motor skills, in individuals from birth to adulthood.

Visual-Spatial Skills – the ability to understand and remember the spatial relations among objects.

Voice Disorders – disorders that affect the pitch, loudness, or quality of the voice.

Vowel – a speech sound made with an open vocal tract that forms the nucleus of a syllable.

Wernicke’s Aphasia is characterised by fluent speech that does not make sense. Because of this, Wernicke’s aphasia is also known as fluent aphasia and receptive aphasia. Wernicke’s aphasia is sometimes referred to as “word salad” because speech tends to include random words and phrases thrown together.

Woodcock Reading Mastery Tests (WRMT) – a comprehensive assessment that evaluates reading skills, including word identification, reading fluency, and comprehension, in individuals from kindergarten through adulthood.

Writing Difficulties – problems with writing skills, often related to language-based learning disorders.

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FINAL REVIEW

1. What are the fundamental areas of focus within SLP? How do they interrelate?
2. Identify and discuss three types of AAC systems commonly used in SLP practice.
3. Compare and contrast CAS with DCD in terms of symptoms and intervention strategies.
4. Discuss the relationship between phonological awareness and literacy development, particularly in the context of reading disorders.
5. What are the defining characteristics of aphasia? How do they impact communication?
6. Outline two assessment techniques used in the diagnosis and management of dysphagia.
7. How can UDL principles be integrated into the development of IEPs for learners with speech and language impairments?
8. What are the advantages and potential limitations of implementing telepractice in SLP?
9. Define evidence-based practice in SLP and discuss its significance in clinical decision-making.
10. What ethical considerations should be taken into account when working with culturally and linguistically diverse populations in SLP?
11. What communication challenges are commonly associated with ASD? How can SLPs address them?
12. Differentiate between expressive and receptive language disorders, providing examples of each.
13. In what ways can SLPs assist patients with Parkinson's disease in managing their communication difficulties?
14. Explain the concept of family-centred approaches in SLP and provide an example of how it can be applied in clinical practice.
15. What are the roles of SLPs in the assessment and treatment of individuals with cleft lip and palate?
16. What are the essential components of a comprehensive voice assessment in SLP?
17. How can SLPs support students diagnosed with nonverbal learning disabilities?
18. Why is interdisciplinary collaboration important in SLP? How can it enhance patient outcomes?

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Часть 3

Irina Andersen

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