CONTENTS

INTRODUCTION

The globalization trends of the 21st century require professionals in every field to master at least one foreign language to be able to discuss specialist issues with colleagues, read professional literature, deliver lectures to listeners from other countries and take part in conferences abroad. Therefore, one of the main objectives pursued by the higher education system of the Republic of Belarus is to improve the non-linguistic students' proficiency in a foreign language paying special attention to their reading, listening and speaking skills, thus allowing them to make use of the best national and foreign practices.

This textbook aims at advancing the language fluency of speech therapy students, helping them further their career by developing valuable reading comprehension skills, expanding their vocabulary, learning English specific to their industry, as well as improving their communication skills.

The textbook consists of ten units discussing the issues of speech production, careers in speech therapy, special education, and various kinds of speech impairments. Each unit contains authentic texts from British and American books, magazines and specialized websites for reading for detail, skimming and written translation as well as vocabulary exercises. The units end with creative assignments aimed at developing students' oral communication skills. Besides, the book contains a glossary, texts for home reading and summarising.

The book can be recommended to speech therapy students and professionals who wish to improve their knowledge of English.

UNIT 1. SPEECH PRODUCTION

I. Enrich your vocabulary.

cavity, *n.*	полость
consonant, *adj., n.*	согласный
glottis, *n.*	голосовая щель
larynx, *n.*	гортань
palate, *n.*	нёбо
velum, *n.*	мягкое нёбо
vocal folds	голосовые связки
voiced, *adj.*	звонкий
voiceless, *adj.*	глухой
vowel, *adj., n.*	гласный

II. Match the words and their definitions. Consult the glossary if necessary.

1) alveolar ridge	a) either of the two baglike respiratory organs in the thorax of humans and the higher vertebrates
2) articulation	b) the part of the central nervous system enclosed in the cranium of humans and other vertebrates, consisting of a soft, convoluted mass of gray and white matter and serving to control and coordinate the mental and physical actions
3) brain	c) the ridgelike border of the upper and lower jaws containing the sockets of the teeth
4) ingressive	d) a periodic motion about an equilibrium position, such as the regular displacement of air in the propagation of sound
5) lung	e) the sensation produced by stimulation of the organs of hearing by vibrations transmitted through the air or other medium
6) nasal	f) the usually movable organ in the floor of the mouth in humans and most vertebrates, functioning in eating, in tasting, and, in humans, in speaking
7) pharynx	g) pronounced with the voice issued through the nose, either partly, as in French vowels, or entirely (as in *m*, *n*, or the *ng* of *song*).

8) sound	h) the tube or cavity, with its surrounding membrane and muscles, that connects the mouth and nasal passages with the esophagus
9) tongue	i) produced with air being taken into the mouth, as some clicks
10) vibration	j) the adjustments and movements of speech organs involved in pronouncing a particular sound, taken as a whole

III. Match the words with the ones with the similar meanings. Consult the glossary if necessary.

1) differentiate	a) intellectual
2) enter	b) opening
3) gap	c) oscillate
4) involve	d) go into
5) mental	e) decrease
6) pass	f) deliver
7) produce	g) begin
8) reduce	h) include
9) start	i) go through
10) vibrate	j) distinguish

IV. Match the words with the ones with the opposite meanings. Consult the glossary if necessary.

1) egressive	a) physical
2) expel	b) termination
3) horizontal	c) ingressive
4) initiation	d) vertical
5) involve	e) irresponsible
6) mental	f) take in
7) narrow	g) voiceless
8) responsible	h) lower
9) upper	i) wide
10) voiced	j) exclude

READING

I. Read the text and pick out information a) of primary importance and b) new to you.

THE PRODUCTION OF SPEECH SOUNDS

How can we produce speech? In this section we will study the production of speech sounds from an articulatory point of view. It must be said that speech does not start in the lungs. It starts in the brain and it is, then, studied by Psycholinguistics. After the creation of the message and the lexico-grammatical structure in our mind, we need a representation of the sound sequence and a number of commands which will be executed by our speech organs to produce the utterance. So, we need a phonetic plan and a motor plan. After these mental operations we come to the physical production of sounds. Speech, then, is produced by an air stream from the lungs, which goes through the trachea and the oral and nasal cavities. It involves four processes: initiation, phonation, oro-nasal process and articulation. The initiation process is the moment when the air is expelled from the lungs. In English, speech sounds are the result of "a pulmonic egressive air stream" although that is not the case in all languages (ingressive sounds). The phonation process occurs at the larynx. The larynx has two horizontal folds of tissue in the passage of air; they are the vocal folds. The gap between these folds is called the glottis.

The glottis can be closed. Then, no air can pass. Or it can have a narrow opening which can make the vocal folds vibrate producing the "voiced sounds". Finally, it can be wide open, as in normal breathing, and, thus, the vibration of the vocal folds is reduced, producing the "voiceless sounds". After it has gone through the larynx and the pharynx, the air can go into the nasal or the oral cavity. The velum is the part responsible for that selection. Through the oro-nasal process we can differentiate between the nasal consonants (/m/, /n/, /ŋ/) and other sounds.

Finally, the articulation process is the most obvious one: it takes place in the mouth and it is the process through which we can differentiate most speech sounds. In the mouth we can distinguish between the oral cavity, which acts as a resonator, and the articulators, which can be active or passive: upper and lower lips, upper and lower teeth, tongue (tip, blade, front, back) and roof of the mouth (alveolar ridge, palate and velum). So, speech sounds are distinguished from one another in terms of the place where and the manner how they are articulated.

II. Match the beginning and the end of the sentences.

1) After it has gone through the larynx and the pharynx,	a) and the articulators, which can be active or passive.
2) After these mental operations	b) through which we can differentiate most speech sounds.
3) An air stream from the lungs, goes through	c) which goes through the trachea and the oral and nasal cavities.
4) In the mouth we can distinguish between the oral cavity, which acts as a resonator,	d) in the passage of air.
5) It is the process	e) we come to the physical production of sounds.
6) Speech is produced by an air stream from the lungs,	f) the trachea and the oral and nasal cavities.
7) Speech sounds are distinguished from one another in terms of	g) when the air is expelled from the lungs.
8) The initiation process is the moment	h) between the nasal consonants and other sounds.
9) The larynx has two horizontal folds of tissue	i) the air can go into the nasal or the oral cavity.
10) Through the oro-nasal process we can differentiate	j) the place where and the manner how they are articulated.

III. Answer the questions.

1. Where does speech start?
2. Where does the phonation process occur?
3. What two types of plans do we need to produce an utterance?
4. Where does the articulation process take place?
5. What processes does speech production involve?
6. What is the initiation process?
7. How is the gap between vocal folds called?
8. What happens when the glottis is closed?
9. What do articulators include?
10. How is speech produced by an air stream from the lungs, which goes through the trachea and the oral and nasal cavities?

IV. Summarize the main ideas of the text.

VOCABULARY FOCUS

I. Find in the text the English equivalents for the following words and phrases.

Последовательность звуков, альвеолярная дуга, носовая полость, ротовая полость, поток воздуха, нижние зубы, голосовые связки, глотка, гортань, отверстие, звуки речи, ткань, мягкое нёбо, дыхание, артикуляционный, легкие, различать, твердое нёбо, мозг, колебание, узкий, трахея, высказывание, звукообразование, язык, согласные.

II. Match the words to make word combinations.

1) alveolar	a) operations
2) articulation	b) consonants
3) lower	c) opening
4) mental	d) organs
5) narrow	e) production
6) nasal	f) lip
7) normal	g) process
8) physical	h) folds
9) speech	i) ridge
10) vocal	j) breathing

III. Insert the missing words.

1. Vocal folds ... producing the “voiced sounds”.
2. The articulation process is the most ... one.
3. We need a phonetic plan and a ... plan.
4. The phonation process occurs at the ... .
5. Speech is produced by an air ... from the lungs.
6. The air can go into the ... or the oral cavity.
7. The ... process is the moment when the air is expelled from the lungs.
8. In English, speech sounds are the result of “a ... egressive air stream”.
9. Articulators can be ... or passive.
10. We need a ... of the sound sequence.

IV. Insert the missing prepositions.

1. We will study the production of speech sounds ... an articulatory point ... view.
2. The phonation process occurs ... the larynx.
3. The velum is the part responsible ... that selection.
4. We can differentiate ... the nasal consonants and other sounds.
5. The air can go ... the nasal or the oral cavity.
6. The initiation process is the moment when the air is expelled ... the lungs.

7. An air stream from the lungs goes ... the trachea and the oral and nasal cavities.

8. Speech sounds are distinguished ... one another.

9. Speech is produced ... an air stream from the lungs.

10. Articulation is the process ... which we can differentiate most speech sounds.

ADDITIONAL PRACTICE

I. Skim the text to find out why speech processing is one of the largest growing research areas in signal processing.

SPEECH PROCESSING

Speech processing is one of the largest growing research areas in signal processing. Each year billions of pounds are spent on supporting research in speech processing. The ultimate aim of this research is to provide an interactive man-machine communication. Speech is a special form of communication medium; it conveys not only the meaning but it also expresses the emotion of the speaker and individual information about the speaker.

During the past few years, the vast number of research and development in speech processing brought up changes in our everyday life. There are commercially available products which are based on Automatic Speech Recognition, Speaker Verification, Speaker Identification and Speech Synthesizer. For example, the personal computer has a built-in speech processor which executes restricted number of spoken voice commands. This advanced technology is based on the mechanism involved in human speech production and perception. In this article particular emphasis is given to speech production.

The purpose of speaking is to convey meaningful ideas to the listener. In order to do this, the listener should be able to interpret the meaning of the spoken sounds. One way of doing this is by providing a coding mechanism with set of rules enabling the listener to interpret the meaning of the speech. The human being uses linguistics as the tool for coding the information. The coding mechanism is not straightforward. The new ideas are converted into linguist structure. This requires selection of appropriate words, phrases. These words are ordered in sequence according to grammatical rules.

Scientists and engineers have understood the basic concepts behind the anatomy and physiology of speech production and perception. But the lack of understanding of the interaction of the brain with vocal tract and auditory apparatus prevents engineers from designing machines, which will be able to understand and speak like ordinary human beings.

II. Using clichés from the Annex write an annotation of the text.

III. Read the text and define its main idea. Translate the text in writing.

Speech production is the process by which thoughts are translated into speech. This includes the selection of words, the organization of relevant grammatical forms, and then the articulation of the resulting sounds by the motor system using the vocal apparatus. Speech production can be spontaneous such as when a person creates the words of a conversation, reactive such as when they name a picture or read aloud a written word, or imitative, such as in speech repetition. Speech production is not the same as language production since language can also be produced manually by signs.

In ordinary fluent conversation people pronounce roughly four syllables, ten or twelve phonemes and two to three words out of their vocabulary (that can contain 10 to 100 thousand words) each second. Errors in speech production are relatively rare occurring at a rate of about once in every 900 words in spontaneous speech. Words that are commonly spoken or learned early in life or easily imagined are quicker to say than ones that are rarely said, learnt later in life, or are abstract.

IV. Use your English.

Write an essay describing the application of speech and language pathology in our everyday lives.

UNIT 2. CAREERS IN SPEECH THERAPY

I. Enrich your vocabulary.

adolescent, *n.*	подросток
clinical supervision	клиническое наблюдение
health care	здравоохранение
infant, *n.*	младенец
multiple, *adj.*	множественный
occupational therapist	эрготерапевт
outpatient, *adj.*	амбулаторный
preschooler, *n.*	дошкольник
rehabilitation counsellor	специалист по реабилитации
toddler, *n.*	ребёнок ясельного возраста

II. Match the words and their definitions. Consult the glossary if necessary.

1) audiology	a) a patient who receives treatment at a hospital, as in an emergency room or clinic, but is not hospitalized
2) client	b) the general condition of the body or mind with reference to soundness and vigour
3) diagnose	c) a person who is under medical care or treatment
4) disorder	d) the science of the mind or of mental states and processes.
5) fellowship	e) a person or group that uses the professional advice or services of a lawyer, accountant, advertising agency, architect, etc.
6) health	f) diligent and systematic inquiry or investigation into a subject in order to discover or revise facts, theories, applications, etc.
7) outpatient	g) to determine the identity of (a disease, illness, etc.) by a medical examination
8) patient	h) an association of people who share common beliefs or activities
9) psychology	i) a disturbance in physical or mental health or functions
10) research	j) the study of hearing disorders, including evaluation of hearing function and rehabilitation of patients with hearing impairments

III. Match the words with the ones with the similar meanings. Consult the glossary if necessary.

1) assess	a) attendance
2) care	b) chance
3) disorder	c) liability
4) flexibility	d) evaluate
5) numerous	e) control
6) opportunity	f) adaptability
7) provide	g) cure
8) responsibility	h) multiple
9) supervise	i) dysfunction
10)treat	j) render

IV. Match the words with the ones with the opposite meanings. Consult the glossary if necessary.

1) assisted	a) low
2) different	b) tactics
3) facilitate	c) specific
4) general	d) similar
5) high	e) outpatient
6) inpatient	f) independent
7) mild	g) single
8) numerous	h) hinder
9) strategy	i) unchanged
10)varying	j) severe

READING

I. Read the text and pick out information a) of primary importance and b) new to you.

SPEECH-LANGUAGE PATHOLOGISTS IN EDUCATION AND HEALTH CARE

Speech-language pathologists (SLPs) work to prevent, assess, diagnose, and treat speech, language, social communication, cognitive-communication, and swallowing disorders in children and adults.

SLPs work in many different research, education, and health care settings with varying roles, levels of responsibility, and client populations. Because of the high demand for speech-language pathology services, part-time, full-time, and PRN (literally, *pro re nata* – in medicine, on an “as needed” basis)

opportunities may be available depending on location, desired facility, employment flexibility, and other factors. In many settings, SLPs often work as part of a collaborative, interdisciplinary team, which may include teachers, physicians, audiologists, psychologists, social workers, physical and occupational therapists, and rehabilitation counsellors.

More than half of SLPs (56 %) are employed in educational settings, including 53 % in schools and 3 % in colleges and universities.

SLPs employed in early childhood and educational settings provide numerous services:

- Conduct screenings and diagnostic evaluations.
- Work with children with a wide range of disabilities, from mild or moderate to severe and/or multiple disorders.
- Provide services on an individual, small-group, or classroom basis to infants, toddlers, preschoolers, school-age children, and adolescents.
- Work on listening, speaking, reading, writing, and learning strategies in general education and special education classrooms.
- Collaborate with and train other professionals and parents to facilitate students' academic, communication, and social skills in an educational environment.
- Serve on program planning and teacher assistance teams.
- Write reports and participate in annual review conferences.
- Develop Individualized Family Service Plans (IFSPs) and Individualized Education Programs (IEPs).
- Complete documentation as required by federal, state, and local agencies.
- Provide counselling and education to families.
- Serve as consultants to other educators and related professionals.
- Supervise support personnel in public schools.
- Supervise clinical practicums and clinical fellowships.

Opportunities abound for teaching, research, and clinical supervision. SLPs may work with a variety of clients/patients in the university core clinical facility and/or its affiliated health care or education facility.

Some 39 % of SLPs are employed in health care settings, including 16 % in nonresidential health care facilities, 13 % in hospitals, and 10 % in residential health care facilities.

Acute care, rehabilitation, and psychiatric hospitals may offer speech and language services on an in/outpatient basis. Hospitals may provide services for patients of all ages, while some – such as children's hospitals and VA or military hospitals – may treat specific populations.

SLPs in a hospital setting may:

• Diagnose and treat cognitive-communication and language disorders and/or swallowing problems.

• Function as members of multidisciplinary or interprofessional treatment teams.

• Provide counselling to patients and their families.

• Educate other health care staff about cognitive-communication, language, and swallowing disorders.

SLPs perform screenings and assessments and deliver treatment in skilled nursing facilities and other types of residential facilities, such as assisted living facilities. They treat the same disorders that are seen in hospitals, but typically stay longer to work on functional skills to become more independent. SLPs treat clients/patients of all ages in their homes or in free-standing outpatient settings, such as speech and hearing clinics or doctors' offices. SLPs who provide home care services may be employed by home health agencies, work in early intervention programs, or be in private practice. They may specialize in certain disorders or populations or treat a wide range of clients/patients.

II. Match the beginning and the end of the sentences.

1) SLPs perform screenings and assessments and deliver treatment	a) including 16 % in nonresidential health care facilities.
2) Some 39 % of SLPs are employed in health care settings,	b) speech, language, social communication, cognitive-communication, and swallowing disorders in children and adults.
3) Acute care, rehabilitation, and psychiatric hospitals may offer	c) provide numerous services.
4) SLPs often work as part of a collaborative, interdisciplinary team,	d) speech and language services on an in/outpatient basis.
5) Opportunities may be available depending on	e) in skilled nursing facilities and other types of residential facilities.
6) Speech-language pathologists work to prevent, assess, diagnose, and treat	f) may be employed by home health agencies, work in early intervention programs, or be in private practice.
7) Hospitals may provide services for patients of all ages,	g) or treat a wide range of clients/patients.
8) SLPs employed in early childhood and educational settings	h) while some may treat specific populations.
	i) which may include teachers, physicians, audiologists, psychologists, rehabilitation counsellors.

9) They may specialize in certain disorders or populations	j) location, desired facility, employment flexibility, and other factors.
10) SLPs who provide home care services	

III. Answer the questions.

1. What is the percentage of SLPs employed in health care settings?
2. Where do SLPs work?
3. What functions do SLPs perform?
4. What is the percentage of SLPs employed in educational settings?
5. What does PRN stand for?
6. What services do SLPs employed in early childhood and educational settings provide?
7. Where can SLPs who provide home care services work?
8. What services can SLPs provide in a hospital setting?
9. Whom does a collaborative, interdisciplinary team include?
10. What may SLPs specialize in?

IV. Summarize the main ideas of the text.

VOCABULARY FOCUS

I. Find in the text the English equivalents for the following words and phrases.

Интенсивная терапия, глотание, с проживанием, лечить, быть в большом количестве, подросток, сотрудничать, раннее вмешательство, частная практика, нарушение, население, амбулаторный, диапазон, сопровождаемое проживание, учреждение здравоохранения, учреждение образования, вспомогательный персонал, дошкольник, младенец, полная занятость, частичная занятость.

II. Match the words to make word combinations.

1) acute	a) population
2) client	b) evaluation
3) cognitive-	c) agencies
4) diagnostic	d) range
5) educational	e) facilities
6) functional	f) care
7) health	g) skills
8) interdisciplinary	h) communication
9) residential	i) environment
10)wide	j) team

III. Insert the missing words.

1. Opportunities ... for teaching, research, and clinical supervision.
2. SLPs often work as ... of a collaborative, interdisciplinary team.
3. Hospitals may ... services for patients of all ages.
4. SLPs work with children with a wide range of ... , from mild or moderate to severe and/or multiple disorders.
5. SLPs conduct ... and diagnostic evaluations.
6. SLPs may ... in certain disorders or populations.
7. SLPs serve as consultants to other educators and ... professionals.
8. SLPs work in many different research, education, and health care ... .
9. SLPs provide ... and education to families.
10. There is ... demand for speech-language pathology services.

IV. Insert the missing prepositions.

1. SLPs deliver treatment ... skilled nursing facilities.
2. SLPs treat patients ... all ages.
3. Opportunities depend ... location, desired facility, employment flexibility, and other factors.
4. SLPs collaborate ... other professionals and parents.
5. 39 % of SLPs are employed ... health care settings.
6. There is high demand ... speech-language pathology services.
7. SLPs may be employed ... home health agencies.
8. They may specialize ... certain disorders.
9. SLPs participate ... annual review conferences.
10. Acute care, rehabilitation, and psychiatric hospitals may offer speech and language services ... an inpatient/outpatient basis.

ADDITIONAL PRACTICE

I. Skim the text to find out how SLPs are employed in private practice.

SPEECH-LANGUAGE PATHOLOGISTS IN PRIVATE PRACTICE

Nearly one-fifth (19 %) of SLPs are employed full- or part-time in private practice. Owning a private practice allows SLPs to be entrepreneurial and make their own decisions about their schedules, caseloads, and target populations. Some private practitioners work alone, and some own large practices that employ a large staff with different types of professionals as well as SLPs. Private practitioners also manage business aspects of their practices, such as billing, marketing, and contracting.

Corporate speech-language pathology involves providing services to a company, or its customers, as a consultant. SLPs offer assessment and training in many aspects of communication – such as speech sound production, fluency, voice, language, and social communication – as well as other services needed by the business world. Training topics may include presentation skills, accent modification, professional diction and grammar, interviewing skills, business writing, and business communication etiquette. SLPs may also train customer service representatives to work with clients who have hearing loss.

Salaries of SLPs depend on educational background, experience, work setting, and geographical location.

Applicants for the Certificate of Clinical Competence in Speech-Language Pathology (CCC-SLP) must earn a graduate degree, successfully complete the required clinical experiences, and pass a national examination. In some areas, such as college teaching, research, and private practice, a PhD is desirable.

To earn the CCC-SLP, individuals must complete graduate course work and a clinical practicum at a college or university whose program is accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA). This assures graduates that their academic and clinical experience meets nationally established standards.

II. Using clichés from the Annex make a synopsis of the text.

III. Read the text and define its main idea. Translate the text in writing.

DISORDERS TREATED BY SPEECH AND LANGUAGE PATHOLOGISTS

Speech-language pathologists (SLPs) work to prevent, assess, diagnose, and treat speech, language, social communication, cognitive-communication, and swallowing disorders in children and adults.

• Speech disorders occur when a person has difficulty producing speech sounds correctly or fluently (e. g., stuttering is a form of disfluency) or has problems with his or her voice or resonance. Classifying speech into normal and disordered is more problematic than it first seems. By a strict classification, only 5% to 10% of the population have a completely normal manner of speaking (with respect to all parameters) and healthy voice; all others suffer from one disorder or another.

• Language disorders or language impairments are disorders that involve the processing of linguistic information. They occur when a person has trouble understanding others (receptive language), or sharing thoughts, ideas, and

feelings (expressive language). Language disorders may be spoken or written and may involve the form (phonology, morphology, syntax), content (semantics), and/or use (pragmatics) of language in functional and socially appropriate ways.

• Social communication disorders occur when a person has trouble with the social use of verbal and nonverbal communication. These disorders may include problems (a) communicating for social purposes (e. g., greeting, commenting, asking questions), (b) talking in different ways to suit the listener and setting, and (c) following rules for conversation and story-telling. All individuals with autism spectrum disorder have social communication problems. Social communication disorders are also found in individuals with other conditions, such as traumatic brain injury.

• Cognitive-communication disorders include problems organizing thoughts, paying attention, remembering, planning, and/or problem-solving. These disorders usually happen as a result of a stroke, traumatic brain injury, or dementia, although they can be congenital.

IV. Use your English.

Prepare a presentation about your career opportunities as an SLP. Add information from other sources.

UNIT 3. SPECIAL EDUCATION

I. Enrich your vocabulary.

attention deficit disorder	синдром дефицита внимания
caseload, *n.*	нагрузка
cerebral palsy	детский церебральный паралич (ДЦП)
fluency, *n.*	беглость
foundations, *n.*	основа
fragile, *adj.*	хрупкий
peer, *n.*	ровесник
performance, *n.*	успешность
physician, *n.*	терапевт
self-esteem, *n.*	самооценка

II. Match the words and their definitions. Consult the glossary if necessary.

1) clinician	a) extent or range of view, outlook, application, operation, effectiveness, etc.
2) communication	b) a sensory signal used to identify experiences, facilitate memory, or organize responses
3) cue	c) the state of being diminished, weakened, or damaged, especially mentally or physically
4) experience	d) the ability to judge, make a decision, or form an opinion objectively, authoritatively, and wisely, especially in matters affecting action
5) fluent	e) a realistic respect for or favourable impression of oneself
6) impairment	f) able to speak or write smoothly, easily, or readily
7) judgment	g) a person who is equal to another in abilities, qualifications, age, background, and social status
8) peer	h) a physician or other qualified person who is involved in the treatment and observation of patients, as distinguished from one engaged in research
9) scope	i) the imparting or interchange of thoughts, opinions, or information by speech, writing, or signs
10) self-esteem	j) the process or fact of personally observing, encountering, or undergoing something

III. Match the words with the ones with the similar meanings. Consult the glossary if necessary.

1) benefit	a) demonstrate
2) development	b) basis
3) disorder	c) take advantage
4) essential	d) final
5) foundations	e) range
6) outcome	f) impairment
7) poor	g) progress
8) scope	h) inadequate
9) show	i) result
10) ultimate	j) necessary

IV. Match the words with the ones with the opposite meanings. Consult the glossary if necessary.

1) deficit	a) general
2) direct	b) optional
3) essential	c) exclude
4) fragile	d) surplus
5) fully	e) good
6) include	f) indirect
7) major	g) partly
8) poor	h) common
9) rare	i) minor
10) special	j) sound

READING

I. Read the text and pick out information a) of primary importance and b) new to you.

EDUCATION OF INDIVIDUALS WITH SPEECH AND LANGUAGE IMPAIRMENTS

Communication skills are the foundations of academic and social performance. The ability to participate in active and interactive communication with peers and adults in the educational setting is essential for students' success in school. Problems with speech or language development can lead to difficulties learning to listen, speak, read, or write. As a result, children with communication disorders may perform at a poor or insufficient academic level,

struggle with reading, have difficulty understanding and expressing language, misunderstand social cues, avoid attending school, show poor judgment, or have difficulty with tests. Speech and language services can help children become effective communicators, problem solvers, and decision makers, allowing them to benefit from a more successful and satisfying educational experience as well as improved peer relationships.

In fact, speech-language intervention is the most common service provided for school children with disabilities. Caseloads include a wide range of disorders such as learning disabilities, autism, attention deficit disorder, stuttering, hearing loss, traumatic brain injury, specific language impairment, and cerebral palsy. Some children are medically fragile, have rare syndromes, or experience feeding and swallowing difficulties. In addition, children with speech or language disorders represent many racial and ethnic groups. The focus of intervention may include any or several components of speaking, listening, reading, or writing – language, voice, fluency, articulation, and/or swallowing.

School-based clinicians have a range of roles and responsibilities. Although the majority of their time is spent providing direct intervention services to children, they must also conduct screenings and diagnostic evaluations, write reports and documentation, plan and prepare sessions, meet and/or consult teachers and parents, and conduct classroom observations of students. The scope of their responsibilities includes prevention of communication disorders as well as assessment and intervention.

Speech and language services involve cooperative efforts with others, including parents, audiologists, psychologists, social workers, special education teachers, classroom teachers, guidance counsellors, physicians, dentists, and nurses. Speech-language clinicians work with teams to provide comprehensive language and speech assessments, and to develop and implement intervention plans. Intervention services may be provided in individual or small group sessions, in classrooms, in teams with teachers, or in a consultative model with teachers and parents. To be effective, communication goals should be educationally relevant, that is, integrated with academic and social activities. The ultimate outcome is to help children overcome their disabilities, achieve pride and self-esteem, participate fully in major life activities, and find meaningful roles in their lives.

II. Match the beginning and the end of the sentences.

1) Caseloads include a wide range of disorders	a) prevention of communication disorders as well as assessment and intervention.
2) Communication skills are the	b) such as learning disabilities, autism, attention deficit
3) In addition, children with	

speech or language disorders	disorder, stuttering, hearing loss, and cerebral palsy.
4) In fact, speech-language intervention	c) can lead to difficulties learning to listen, speak, read, or write.
5) Problems with speech or language development	d) become effective communicators, problem solvers, and decision makers.
6) Some children are medically fragile, have rare syndromes,	e) that is, integrated with academic and social activities.
7) Speech and language services can help children	f) foundations of academic and social performance.
8) The scope of their responsibilities includes	g) is the most common service provided for school children with disabilities.
9) The ultimate outcome is	h) to help children overcome their disabilities.
10) To be effective, communication goals should be educationally relevant,	i) represent many racial and ethnic groups.
	j) or experience feeding and swallowing difficulties.

III. Answer the questions.

1. What is the most common service provided for school children with disabilities?
2. What difficulties can problems with speech or language development lead to?
3. What does the focus of speech-language intervention include?
4. What roles and responsibilities do school-based clinicians have?
5. What do caseloads include?
6. What makes communicative goals effective?
7. What professionals do speech and language pathologists cooperate with?
8. How are intervention services provided?
9. Do children with speech or language disorders represent one racial or ethnic group?
10. How can speech and language services help children?

IV. Summarize the main ideas of the text.

VOCABULARY FOCUS

I. Find in the text the English equivalents for the following words and phrases.

Конечный результат, проводить наблюдение, заикание, самооценка, значимый, сфера ответственности, предотвращение, избегать, неправильно понимать, глотание, общение, посещать, результат, беглость, преодолевать нарушения, травматическое повреждение мозга, сверстники, недостаточный, синдром дефицита внимания, утрата слуха, вмешательство, оценка, образовательная среда.

II. Match the words to make word combinations.

1) academic	a) disorder
2) communication	b) outcome
3) comprehensive	c) cues
4) decision	d) performance
5) intervention	e) assessment
6) meaningful	f) maker
7) peer	g) solver
8) problem	h) roles
9) social	i) plan
10) ultimate	j) relationships

III. Insert the missing words.

1. The majority of their time is spent providing direct ... services to children.
2. Communication skills are the ... of academic and social performance.
3. The ultimate outcome is to help children ... their disabilities.
4. The scope of their ... includes prevention of communication disorders.
5. Speech and language services can help children become ... communicators.
6. Children with communication disorders may ... at a poor or insufficient academic level.
7. Children with speech or language disorders ... many racial and ethnic groups.
8. Speech-language intervention is the most common service provided for school children with ... .
9. Speech and language services involve ... efforts with others.
10. The focus of intervention may include any ... of speaking, listening, reading, or writing.

IV. Insert the missing prepositions.

1. Speech-language intervention is the most common service provided ... school children ... disabilities.
2. Communication goals should be integrated ... academic and social activities.
3. The ultimate outcome is to help children participate fully ... major life activities.
4. Caseloads include a wide range ... disorders.
5. The scope ... their responsibilities includes prevention ... communication disorders.
6. Speech-language clinicians work ... teams.
7. This ability is essential ... students' success ... school.
8. Problems with speech or language development can lead ... difficulties.
9. Intervention services may be provided ... individual or small group sessions.
10. School-based clinicians have a range ... roles and responsibilities.

ADDITIONAL PRACTICE

I. Skim the text to describe the main events in the history of speech and language services.

THE HISTORY OF SPEECH AND LANGUAGE SERVICES (Part I)

Since their inception in the early twentieth century, speech and language services in the schools have undergone profound fundamental changes in scope and focus. Initially, speech correctionists, speech specialists, or speech teachers worked primarily with elementary school children who had mild to moderate speech impairments in the areas of articulation, fluency, and voice. Children with more severe disabilities were placed in private schools or institutions, or were not provided services at all. That is no longer the case, however, due to a number of social, political, and professional influences.

During the 1960s a number of state and federal laws were passed addressing the responsibility of public schools to provide an education to children with disabilities. Although a vast number of children with disabilities remained unidentified or inadequately educated according to Taylor, these laws served as the foundation, both legally and philosophically, for legislation passed in the 1970s that brought about profound and widespread changes in the responsibility that schools must accept in educating children with disabilities.

The Rehabilitation Act of 1973 was civil rights legislation that prohibited discrimination on the basis of disability in public or private programs and activities receiving federal financial assistance, including public education. This was followed in 1975 by the Education for All Handicapped Children Act, requiring that all children with disabilities have available to them a free appropriate public education that emphasizes special education and related services designed to meet their unique needs. The act was amended in 1986 to ensure services for children from birth through age two, and to place that responsibility with public agencies. This expansion of special education services was accompanied by the Regular Education Initiative calling for a partnership between general and special education to eliminate barriers between disabled and nondisabled children.

In 1990 the act was reauthorized once again, this time as the Individuals with Disabilities Education Act (IDEA), with a renewed focus on free appropriate public education in the least restrictive environment. In the same year, the Americans with Disabilities Act was passed, mandating reasonable accommodations for disabilities across all public and private settings, including private and public schools.

The IDEA Amendments of 1997 (IDEA 1997) is designed to retain the basic rights and protections that have been in the law since 1975 while strengthening the focus on improving results for children with disabilities. The primary focus of IDEA 1997 is to establish an educational process that promotes meaningful access to the general curriculum for each student with a disability.

II. Using clichés from the Annex make a synopsis of the text.

III. Read the text and define its main idea. Translate the text in writing.

THE HISTORY OF SPEECH AND LANGUAGE SERVICES (Part II)

While landmark legislative initiatives were being enacted during the 1970s, an equally significant shift occurred in the professional domain with the expansion of scholarship in all language-related fields. This stimulated increased attention to disordered language as well as normal language acquisition, with a concomitant shift in the relative proportion of students receiving special services in the schools for language problems, as differentiated from speech problems. At the same time, there was an increase in awareness of the central role that language plays in academic achievement. The expanding learning disability movement had a significant impact on language services in schools, as a large proportion of services

to students with learning disabilities focused on strengthening language skills. This was typically viewed as being within the purview of the speech-language clinician who was based in the school.

During the 1990s there was an increased awareness of the relationship between language and literacy (i. e. reading and writing). Language problems are both a cause and a consequence of literacy problems in children and adolescents. Spoken and written language have a reciprocal relationship – each builds on the other to result in general language and literacy competence, starting early and continuing through childhood into adulthood. Because of this, speech-language clinicians play important roles in ensuring that children gain access to appropriate instruction in reading, writing, and spelling. These roles include early identification and assessment, intervention, and development of literacy programs.

Speech-language clinicians test a child's speech and language skills and decide if this child needs treatment. Each school has a process to get services started.

A child may get speech and language services alone or in a small group. Speech-language clinicians may go into the child's classroom and work with his teacher. Speech-language clinicians work with the child on what he is learning in class. The goal of speech and language services is to help the child do well in school. Speech-language clinicians work as part of a team that makes sure that the child gets the services he needs.

IV. Use your English.

In pairs prepare a report about special education in Belarus. Add information from other sources.

UNIT 4. SPEECH IMPAIRMENTS

I. Enrich your vocabulary.

adverse, *adj*.	отрицательный, негативный
affect, *v*.	влиять на
comprehend, *v*.	понимать
deafness, *n*.	глухота
distortion, *n*.	искажение
elaborate, *adj*.	сложный, усложненный
impairment, *n*.	патология
omission, *n*.	пропуск, упущение
pitch, *n*.	высота (звука)
prolongation, *n*.	растягивание

II. Match the words and their definitions. Consult the glossary if necessary

1) apraxia	a) an approximate judgment or calculation, as of the value, amount, time, size, or weight of something
2) articulation	b) a disorder of the nervous system, characterized by an inability to perform purposeful movements, but not accompanied by a loss of sensory function or paralysis
3) consonant	c) amplification of the range of audibility of any source of speech sounds, especially of phonation, by various couplings of the cavities of the mouth, nose, sinuses, larynx, pharynx, and upper thorax, and, to some extent, by the skeletal structure of the head and upper chest
4) estimate	d) the adjustments and movements of speech organs involved in pronouncing a particular sound, taken as a whole
5) phonology	e) the stock of words used by or known to a particular people or group of persons
6) resonance	f) an uninterrupted segment of speech consisting of a vowel sound, a diphthong, or a syllabic consonant, with or without preceding or following consonant sounds
7) stutter	g) the study of the distribution and patterning of speech sounds in a language and of the tacit rules governing pronunciation

8) syllable	h) a speech sound produced by occluding with or without releasing (p, b; t, d; k, g), diverting (m, n, ng), or obstructing (f, v; s, z, etc.) the flow of air from the lungs
9) vocabulary	i) the sound or sounds uttered through the mouth of living creatures, especially of human beings in speaking, shouting, singing, etc.
10) voice	j) to speak in such a way that the rhythm is interrupted by repetitions, blocks or spasms, or prolongations of sounds or syllables, sometimes accompanied by contortions of the face and body

III. Match the words with the ones with the similar meanings. Consult the glossary if necessary

1) adverse	a) show
2) deficit	b) impairment
3) demonstrate	c) difficult
4) disorder	d) comprehend
5) duration	e) major
6) elaborate	f) complicated
7) excessive	g) length
8) hard	h) extra
9) significant	i) negative
10) understand	j) lack

IV. Match the words with the ones with the opposite meanings. Consult the glossary if necessary

1) ability	a) positive
2) abnormal	b) deficit
3) absence	c) presence
4) adverse	d) regular
5) elaborate	e) slow
6) excessive	f) simple
7) fast	g) minor
8) hard	h) smooth
9) jerky	i) inability
10) significant	j) easy

READING

I. Read the text and pick out information a) of primary importance and b) new to you.

SPEECH AND LANGUAGE DISORDERS

Speech and language impairment is defined as a communication disorder that adversely affects the child's ability to talk, understand, read, and write. This disability category can be divided into two groups: speech impairments and language impairments.

Speech and language impairments are considered a high-incidence disability. Approximately 20 % of children receiving special education services are receiving services for speech and language disorders. This estimate does not include children who receive services for speech and language disorders that are secondary to other conditions such as deafness. More than one-half (55.2 %) of all 3-, 4-, and 5-year-olds with a disability receive speech and language services.

There are three basic types of speech impairments: articulation disorders, fluency disorders, and voice disorders.

Articulation disorders are errors in the production of speech sounds that may be related to anatomical or physiological limitations in the skeletal, muscular, or neuromuscular support for speech production. These disorders include:

- omissions: (*bo* for *boat*);
- substitutions: (*wabbit* for *rabbit*);
- distortions: (*shlip* for *sip*).

Fluency disorders are difficulties with the rhythm and timing of speech characterized by hesitations, repetitions, or prolongations of sounds, syllables, words, or phrases. Common fluency disorders include:

- stuttering: rapid-fire repetitions of consonant or vowel sounds especially at the beginning of words, prolongations, hesitations, interjections, and complete verbal blocks;
- cluttering: excessively fast and jerky speech.

Voice disorders are problems with the quality or use of one's voice resulting from disorders in the larynx. Voice disorders are characterized by secondary production and/or absence of vocal quality, pitch, loudness, resonance, and/or duration.

There are five basic areas of language impairments: phonological disorders, morphological disorders, semantic disorders, syntactical deficits, and pragmatic difficulties.

Phonological disorders are defined as the abnormal organization of the phonological system, or a significant deficit in speech production or perception. A child with a phonological disorder may be described as hard to understand or as not saying the sounds correctly. Apraxia of speech is a specific phonological disorder where the student may want to speak but has difficulty planning what to say and what motor movements to use.

Morphological disorders are defined as difficulties with morphological inflections (inflections on nouns, verbs, and adjectives that signal different kinds of meanings).

Semantic disorders are characterized by poor vocabulary development, inappropriate use of word meanings, and/or inability to comprehend word meanings. These students will demonstrate restrictions in word meanings, difficulty with multiple word meanings, excessive use of nonspecific terms (e. g., *thing* and *stuff*), and indefinite references (e. g., *that* and *there*).

Syntactic deficits are characterized by difficulty in acquiring the rules that govern word order and other aspects of grammar such as subject-verb agreement. Typically, these students produce shorter and less elaborate sentences with fewer cohesive conjunctions than their peers.

Pragmatic difficulties are characterized as problems in understanding and using language in different social contexts. These students may lack an understanding of the rules for making eye contact, respecting personal space, requesting information, and introducing topics.

II. Match the beginning and the end of the sentences.

1) A child with a phonological disorder may be described as	a) hesitations, repetitions, or prolongations of sounds, syllables, words, or phrases.
2) Apraxia of speech is a specific phonological disorder where the student may want to speak	b) anatomical or physiological limitations in the skeletal, muscular, or neuromuscular support for speech production.
3) Articulation disorders are errors in the production of speech sounds that may be related to	c) that are secondary to other conditions such as deafness.
4) Fluency disorders are difficulties with the rhythm and timing of speech characterized by	d) that govern word order and others aspects of grammar such as subject-verb agreement.
5) Morphological disorders are defined	e) hard to understand or as not saying the sounds correctly.
6) Pragmatic difficulties are	f) but has difficulty planning what to say and what motor movements to

characterized as
7) Speech and language impairment is defined as
8) Syntactic deficits are characterized by difficulty in acquiring the rules
9) There are five basic areas of language impairments:
10) This estimate does not include children who receive services for speech and language disorders

use.
g) phonological disorders, morphological disorders, semantic disorders, syntactical deficits, and pragmatic difficulties.
h) problems in understanding and using language in different social contexts.
i) a communication disorder that adversely affects the child's ability to talk, understand, read, and write.
j) as difficulties with morphological inflections.

III. Answer the questions.

1. What are semantic disorders characterized by?
2. What are syntactic deficits characterized by?
3. What are the five basic areas of language impairments?
4. What do articulation disorders include?
5. How is a speech and language impairment defined?
6. What are the three basic types of speech impairments?
7. What are pragmatic difficulties characterized by?
8. What do fluency disorders include?
9. What percentage of all 3-, 4-, and 5-year-olds with a disability receive speech and language services?
10. Is speech and language impairment defined as a communication or a learning disorder?

IV. Summarize the main ideas of the text.

VOCABULARY FOCUS

I. Find in the text the English equivalents for the following words and phrases.

Ограничение, избыточный, чрезмерный, прилагательное, глагол, существительное, изменение формы слова, речь взахлеб, гласный звук, замена, вторичный, словарный запас, искажение, значительный, глухота, слог, избыточное использование, сложные предложения, восприятие, удлинение, прерывистый, согласование.

II. Match the words to make word combinations.

1) abnormal	a) block
2) common	b) use
3) excessive	c) speech
4) high-incidence	d) support
5) jerky	e) production
6) motor	f) agreement
7) neuromuscular	g) movements
8) secondary	h) disability
9) subject-verb	i) disorder
10) verbal	j) organization

III. Insert the missing words.

1. Phonological disorders are defined as the ... organization of the phonological system.
2. There are three basic types of ... impairments.
3. Speech and language impairments are considered a ... disability.
4. These speech and language disorders are secondary to other ... .
5. These students produce shorter and less ... sentences.
6. Syntactic deficits are characterized by difficulty in ... the rules that govern word order.
7. The student may want to speak but has ... planning what to say.
8. Semantic disorders are characterized by poor ... development.
9. A child with a ... disorder may be described as hard to understand or as not saying the sounds correctly.
10. Articulation disorders are ... in the production of speech sounds.

IV. Insert the missing prepositions.

1. This disability category can be divided ... two groups.
2. These speech and language disorders are secondary ... other conditions.
3. These students will demonstrate restrictions ... word meanings.
4. Voice disorders are characterized ... secondary production and absence of vocal quality.
5. Phonological disorders are defined as a significant deficit ... speech production or perception.
6. A child ... a phonological disorder may be described as hard to understand.
7. Voice disorders result ... disorders in the larynx.
8. Articulation disorders are errors ... the production of speech sounds.
9. Children receive services ... speech and language disorders.
10. Morphological disorders are difficulties ... morphological inflections.

ADDITIONAL PRACTICE

I. Skim the text to find out what assistive technologies are used to help students with speech and language impairments.

ASSISTIVE TECHNOLOGY

For students with speech and language impairments, the major types of assistive technology can be divided into two areas.

First, students with speech and language impairments have an array of computer software packages available to develop their speech and language skills. An example is First Words, a language program that has a number of applications for teaching those who are developing or reacquiring language functions. The program uses graphic presentations combined with synthesized speech to teach high-frequency nouns, and is one of many software packages that can help develop both speech and language.

Secondly, students with speech and language impairments may use augmentative or alternative communication (AAC). AAC is the use of symbols, aids, strategies, and techniques to enhance the communication process. This includes sign language and various communication boards, both manual and electronic, that are used by individuals with impaired oral motor skills.

The most basic AAC devices are non-electronic communication boards. The boards usually are limited to a number of choices (two to four). The choices can be represented by real items, pictures of items, and symbols for items (including print). The objective of the communication board is to have the student make a choice, typically of food or activity. Electronic AAC devices range from very simple devices with few buttons (such as the Cheap Talk) to very elaborate systems that use a keyboard and synthesized speech (such as the Dyna Vox and Liberator).

II. Using clichés from the Annex make a synopsis of the text.

III. Read the text and define its main idea. Translate the text in writing.

TEACHING STRATEGIES

As with all students who receive special education services, collaboration of a multi-disciplinary team is necessary. Students with speech or language disorders will receive services from many education professionals, including general education teachers, special education teachers, and speech-language pathologists.

Speech-language pathologists provide a variety of professional services aimed at helping people develop effective communication skills. These services may include:

- helping children with articulation disorders learn proper production of speech sounds;
- helping children who stutter speak more fluently;
- assisting children with voice disorders to improve their voice quality;
- helping individuals with aphasia relearn speech and language skills;
- assisting individuals who have difficulty swallowing as a result of illness, surgery, stroke, or injury;
- evaluating, selecting, and developing augmentative and alternative communication systems;
- enhancing communication effectiveness.

The general education teacher should work with the speech-language pathologist to incorporate strategies to help the student generalize strategies mastered in speech therapy. This may include corrective measures, helping with speech and language exercises, and providing the student with immediate feedback when the speech-language pathologist is not present. The general education and special education teacher should both collaborate with the speech-language pathologist for interventions and teaching strategies.

IV. Use your English.

Write an essay on the role of teaching strategies and assistive technologies in modern speech therapy.

UNIT 5. STUTTERING

I. Enrich your vocabulary.

adverse, *adj*.	отрицательный, негативный
chronic, *adj*.	хронический
developmental, *adj*.	возрастной
disfluency, *n.*	нарушение беглости
disorder, *n.*	нарушение, расстройство
encumber, *v.*	препятствовать, затруднять
genetic, *adj*.	генетический
prolong, *v.*	растягивать
stuttering, *n.*	заикание
treatment, *n.*	лечение

II. Match the words and their definitions. Consult the glossary if necessary.

1) brain	a) having origin in the mind or in a mental condition or process
2) etiology	b) originating in a nerve or nerve tissue
3) flaw	c) action in response to a stimulus, as of the system or of a nerve, muscle, etc.
4) neurogenic	d) the cause or origin of a disease
5) psychogenic	e) to speak in such a way that the rhythm is interrupted by repetitions, blocks or spasms, or prolongations of sounds or syllables, sometimes accompanied by contortions of the face and body
6) reaction	f) the source or origin of a thing
7) root	g) the part of the central nervous system enclosed in the cranium of humans and other vertebrates, consisting of a soft, convoluted mass of gray and white matter and serving to control and coordinate the mental and physical actions
8) stutter	h) a phenomenon that arises from and accompanies a particular disease or disorder and serves as an indication of it
9) symptom	i) the combination of mental, physical, and emotional traits of a person
10) temperament	j) a feature that mars the perfection of something

III. Match the words with the ones with the similar meanings. Consult the glossary if necessary.

1) cause	a) unintentional
2) common	b) defect
3) flaw	c) certain
4) involuntary	d) start
5) onset	e) reason
6) participate	f) widespread
7) profound	g) sign
8) rapid	h) deep
9) specific	i) fast
10)symptom	j) take part in

IV. Match the words with the ones with the opposite meanings. Consult the glossary if necessary.

1) adverse	a) slow
2) common	b) seldom
3) enhance	c) decrease
4) gradual	d) general
5) internal	e) superficial
6) often	f) external
7) profound	g) insignificant
8) rapid	h) sudden
9) significant	i) positive
10)specific	j) unique

READING

I. Read the text and pick out information a) of primary importance and b) new to you.

STUTTERING

Stuttering is a communication disorder generally characterized by involuntary disruptions in the flow of speech. These disfluencies can take many forms, such as repetitions of parts of words (¿li-li-like this¿) and moments when a sound or a period of silence is prolonged (¿llllike this¿ or ¿l-----ike this¿). Individuals who stutter often experience negative emotional, cognitive or behavioural reactions that can further affect their ability to communicate. Ultimately, stuttering can have a significant adverse impact on an individual's quality of life and ability to participate in daily activities.

The stuttering classification encompasses a number of communication disorders: neurogenic stuttering and psychogenic stuttering are associated with sudden onset and, as their names imply, with a specific known cause – either a flaw in the makeup of the brain or a profound psychological challenge. These disorders are relatively rare and differ in terms of etiology, symptoms and treatment from developmental stuttering, the most common disorder. Developmental stuttering typically starts in early childhood, between the ages of two and a half and four. The onset of the disorder, which can be gradual or relatively sudden, generally occurs during the period of rapid development in a child's language skills, motor skills, temperament, and social interaction. Later onset of developmental stuttering has also been reported, though less is known about this variant.

The causes of developmental stuttering are not well understood and various theories have been offered throughout the history of speech-language pathology. The roots of stuttering have been attributed to a number of causes: emotional problems, neurological problems, inappropriate reactions by caregivers and family members, language planning, and speech motor difficulties, among others. Many of these theories have shown promise in explaining some characteristics of stuttering but no single theory has comprehensively described the internal and external experiences of people who stutter.

The growing consensus is that many factors influence stuttering. Current theories suggest that it arises due to a combination of several genetic and environmental influences. Some elements currently being examined include motor skills, language skills, and temperament. It is presumed that a child experiences disruptions in speech production due to an interaction among these (and presumably other) factors.

Most experts recommend early evaluation and treatment aimed at preventing the development of a chronic communication disorder. As children approach the school-age years and adolescence, treatment often shifts toward addressing additional factors, such as reducing negative reactions to stuttering and minimizing the adverse impact of stuttering on communication ability and quality of life.

Speech-language pathologists disagree about which approach is best for older children and adults. Treatment options include training to change speech patterns, counselling to minimize negative reactions, pharmaceutical interventions, and electronic devices that enhance fluency. Self-help and support groups also play a prominent role in recovery for many people who stutter.

The ultimate outcome of therapy is to ensure that communication difficulties do not encumber the speaker even if some stuttering remains in the person's speech. Many people who stutter are able to make positive changes in

their speech skills, communication abilities, and cognitive reactions so they can communicate effectively.

II. Match the beginning and the end of the sentences.

1) As children approach the school-age years and adolescence,	a) that can further affect their ability to communicate.
2) Current theories suggest that stuttering arises	b) the internal and external experiences of people who stutter.
3) Individuals who stutter often experience negative emotional, cognitive or behavioural reactions	c) due to a combination of several genetic and environmental influences.
4) Most experts recommend early evaluation and treatment aimed at	d) treatment often shifts toward addressing additional factors.
5) Neurogenic stuttering and psychogenic stuttering are associated with sudden onset and	e) pharmaceutical interventions, and electronic devices that enhance fluency.
6) No single theory has comprehensively described	f) with a specific known cause – either a flaw in the makeup of the brain or a profound psychological challenge.
7) Some elements currently being examined include	g) emotional problems, neurological problems, inappropriate reactions by caregivers and family members, language planning, and speech motor difficulties, among others.
8) Speech-language pathologists disagree about	h) preventing the development of a chronic communication disorder.
9) The roots of stuttering have been attributed to a number of causes:	i) motor skills, language skills, and temperament.
10) Treatment options include training to change speech patterns, counselling to minimize negative reactions,	j) which approach is best for older children and adults.

III. Answer the questions.

1. What do most experts recommend?
2. What do speech-language pathologists disagree about?
3. What have the roots of stuttering been attributed to?
4. When does the onset of the disorder generally occur?
5. What plays a prominent role in recovery for many people who stutter?
6. What is stuttering?

7. When does developmental stuttering typically start?
8. What do treatment options include?
9. What forms can these disfluencies take?
10. What do current theories suggest?

IV. Summarize the main ideas of the text.

VOCABULARY FOCUS

I. Find in the text the English equivalents for the following words and phrases.

Гарантировать, подход, поведенческий, повышать беглость, лечение, приобретенное заикание, расстройство, логопедия, постепенный, направленный на, диагностика, взаимодействие, подростковый возраст, моторные навыки, негативное влияние, качество жизни, препятствовать, расходиться во мнениях.

II. Match the words to make word combinations.

1) developmental	a) consensus
2) emotional	b) challenge
3) growing	c) skills
4) language	d) interventions
5) pharmaceutical	e) outcome
6) psychological	f) options
7) social	g) stuttering
8) speech-language	h) interaction
9) treatment	i) problems
10) ultimate	j) pathology

III. Insert the missing words.

1. The growing consensus is that many factors ... stuttering.
2. Developmental ... typically starts in early childhood.
3. Neurogenic stuttering is associated with sudden ... .
4. Treatment is aimed at ... the development of a chronic communication disorder.
5. Speech-language ... disagree about which approach is best for older children and adults.
6. Self-help and support groups also play a prominent role in ... for many people who stutter.
7. No single theory has ... described the experiences of people who stutter.
8. The ultimate outcome of ... is to ensure that communication difficulties do not encumber the speaker.

9. These disorders are rare and differ in terms of etiology, symptoms and ... from developmental stuttering.

10. Many of these theories have shown ... in explaining some characteristics of stuttering.

IV. Insert the missing prepositions.

1. Various theories have been offered ... the history of speech-language pathology.

2. The roots ... stuttering have been attributed ... a number of causes.

3. Treatment is aimed ... preventing the development of a chronic communication disorder.

4. Stuttering can have a significant adverse impact ... an individual's quality of life.

5. Support groups play a prominent role ... recovery for many people who stutter.

6. Neurogenic stuttering and psychogenic stuttering are associated ... a specific known cause.

7. Stuttering is characterized ... involuntary disruptions ... the flow of speech.

8. Treatment often shifts ... addressing additional factors.

9. Developmental stuttering typically starts ... the ages of two and a half and four.

10. The onset of the disorder generally occurs ... the period of rapid development ... a child's language skills.

ADDITIONAL PRACTICE

I. Skim the text and find out the reasons for stuttering.

CAUSES AND TREATMENT OF STUTTERING IN YOUNG CHILDREN

It is not uncommon for young children to have disfluencies (pauses, repetitions, additions, or prolongations of words/sounds/phrases) in their speech. In fact, about 5 % of all children are likely to stutter at some point in their development, usually during the preschool years. It is also very normal for a child to go back and forth between periods of fluency and disfluency. Sometimes, this can occur for no apparent reason, but often this happens when a child is excited, tired, or feels rushed to speak. The number of disfluencies present in a child's speech is an important factor in determining if a child is stuttering. Generally speaking, stuttering on more than 10 words out of 100 may indicate that the child is having a problem. Other factors must be considered, as

well, so only a speech pathologist trained in the diagnosis and treatment of stuttering is qualified to make this diagnosis. There is still a lot that is unknown about the cause of stuttering, but experts agree that it is probably caused by a combination of factors. First, genetics is believed to play a part because stuttering tends to run in families. Most children that stutter have a family member that also stutters or stuttered as a child. Second, developmental factors are believed to be a contributing factor. During the preschool years, a child's physical, cognitive, social/emotional, and speech/language skills are developing at a very rapid rate. This rapid development can lead to stuttering in children who are predisposed to it. This is why stuttering often begins during the preschool years. Third, environmental factors can have an influence. Some examples of these factors include parental attitudes and expectations, the child's speech and language environment, and stressful life events. This does not mean that parents are doing anything wrong. Often these things are not harmful to a child that doesn't stutter, but can aggravate stuttering in a child that has a tendency to stutter. Finally, the child's fear and anxiety of stuttering can cause it to continue and even worsen.

II. Using clichés from the Annex make a synopsis of the text.

III. Read the text and define its main idea. Translate the text in writing.

TREATMENT OF STUTTERING

Treatment often focuses on having children produce fluent speech as they learn to selfmonitor. This can be done by first having the child say single words in a slow, relaxed way. The number of words the child says may be slowly increased until the child is saying sentences. For example, "ball," "red ball," "a big red ball," "I have a big red ball." This process can take anywhere from a few weeks to six months or more. Another stuttering treatment technique focuses on helping children decrease secondary characteristics like twitching, blinking, and a closed or clamped jaw.

There are many things that you can do (and avoid doing) that will help your child. The most important thing that you can do is to use a smooth, relaxed rate when talking to him/her. Speak to your child in simple, short sentences, pausing slightly before responding. While you are talking, be sure to listen to what your child is saying without interrupting or finishing sentences for him/her. It is very important that your child knows that he/she is being understood. Try to slow the pace of your household, minimizing the level of excitement. When he/she has difficulty speaking, it's OK to acknowledge it by saying, "You had a little trouble getting that out."

It is very important to inform all those who have contact with your child about the importance of using smooth, relaxed speech when talking to him/her. This would include all family members, teachers, etc.

One of the keys to success is parental education. Parents should be advised to avoid criticizing their child, to remind the child to speak more slowly and repeat words that are said indistinctly. Parents should talk to their child slowly and in a relaxed manner. They should allow the child to speak at his or her own pace. Bedtime reading is a good way for parents to model slow, fluent speech while fostering closeness and intimacy.

Frustrations experienced by the child should be kept to a minimum. The aim of treatment is to increase the child's confidence and to reduce the fear of stuttering. Stutterers should be encouraged to discuss the problem openly with friends and family and to explore their feelings about the disorder.

Speech therapy is also widely available. Most approaches attempt to decrease the rate of speech either under the direction of the speech therapist or with the use of a metronome. The speech therapist encourages very young children to speak at a slower rate while playing games with them. Older children are taught “timed syllabic speech.” They are encouraged to speak syllable by syllable, with each syllable stressed evenly, spoken in a regular rhythm and separated equidistantly from the next syllable.

IV. Use your English.

In pairs prepare a report on stuttering treatment techniques. Add information from other sources.

UNIT 6. APHASIA

I. Enrich your vocabulary.

anomic aphasia	амнестическая афазия
breathe, *v.*	дышать
conversation, *n.*	беседа
degree, *n.*	степень
incoherent, *adj.*	бессвязный
intact, *adj.*	сохранный
migraine, *n.*	мигрень
recognition, *n.*	распознавание
stroke, *n.*	инсульт
tumour, *n.*	опухоль

II. Match the words and their definitions. Consult the glossary if necessary

1) accurate	a) something that by its nature or character serves as a call to battle, contest, special effort, etc.
2) centre	b) having a feeling of or filled with frustration
3) challenge	c) the middle point, as the point within a circle or sphere equally distant from all points of the circumference or surface, or the point within a regular polygon equally distant from the vertices
4) frustrated	d) lack of strength, firmness, vigour, or the like
5) migraine	e) a loss or impairment of voluntary movement in a body part, caused by injury or disease of the nerves, brain, or spinal cord
6) paralysis	f) an extremely severe paroxysmal headache, usually confined to one side of the head and often associated with nausea
7) speech	g) free from error or defect; consistent with a standard, rule, or model
8) swallow	h) communication by voice in the distinctively human manner, using arbitrary sounds in conventional ways with conventional meanings
9) vary	i) to take into the stomach by drawing through the throat and esophagus with a voluntary muscular action, as food, drink, or other substances
10) weakness	j) to change or alter, as in form, appearance, character, or substance

III. Match the words with the ones with the similar meanings. Consult the glossary if necessary.

1) accurate	a) influence
2) basic	b) outcome
3) comprehensive	c) exact
4) damage	d) broad
5) extensive	e) injury
6) frustrated	f) inclusive
7) global	g) dissatisfied
8) impact	h) simple
9) incorporate	i) universal
10)result	j) include

IV. Match the words with the ones with the opposite meanings. Consult the glossary if necessary.

1) accurate	a) local
2) cause	b) strength
3) connected	c) result
4) frontal	d) pleased
5) frustrated	e) easy
6) global	f) disconnected
7) hard	g) minor
8) order	h) inaccurate
9) significant	i) disorder
10)weakness	j) rear

READING

I. Read the text and pick out information a) of primary importance and b) new to you.

WHAT IS APHASIA?

Aphasia is a language disorder that can affect a person's use of language. It can impact their ability to speak, to understand, to read and write, but not necessarily all of these. It often happens as the result of a stroke.

Aphasia can happen as a result of brain damage linked to Alzheimer's disease or a stroke. The challenges that the person will face depend on which parts of the brain are affected. Studies suggest that between 9 percent and 62 percent of people who have a stroke experience some degree of aphasia.

There are several kinds of aphasia.

Fluent aphasia or Wernicke's aphasia: The person finds it difficult to understand the meaning of spoken words, but they can produce connected speech. However, the speech may be incoherent, with irrelevant words intruding. Reading and writing may be difficult.

Non-Fluent aphasia, or Broca's aphasia: Speech production is often short, and described as halting and effortful. It is hard to access words, and formation of sounds may be difficult. Writing may be affected, but the ability to read and understand often remains intact.

Global aphasia: This affects all aspects of language. The person may be able to say a few recognizable words but they cannot understand speech or read and write.

Anomic aphasia: The person may produce grammatically accurate language, but they have difficulty naming objects and words, so they may talk around the word as they try to explain themselves. Listening and reading may remain intact.

The person with aphasia will normally have noticeable difficulty with their use of speech and language. They may become frustrated at their inability to express themselves.

However, the type of difficulty will be different according to the type of aphasia they have.

Weakness or paralysis on one or both sides of the face or body can also make speech production or writing more difficult. The muscles used to breathe or swallow can be affected, and this has an impact on the production of sounds.

The part of the brain that controls speech and language recognition is referred to as the language centre. It includes Broca's area and Wernicke's area. Aphasia happens when there is damage to any of these parts of the brain or the neural pathways connecting them.

Damage can result from: stroke, traumatic brain injury, epilepsy, migraine, brain tumour, Alzheimer's disease and Parkinson's disease.

The type of aphasia depends on which part of the brain is damaged.

Global aphasia happens when there is widespread damage right through the language centre, fluent aphasia normally results from damage to the temporal lobe, or the side of brain, and non-fluent aphasia happens when there is damage to the frontal lobe, or the front of the brain.

As many people have aphasia after a stroke, a speech-language pathologist will conduct an evaluation to diagnose aphasia soon after the event.

Some basic exercises that can help assess the patient's language skills include:

- naming objects that begin with a certain letter;
- reading or writing;

– holding a conversation;
– understanding directions and commands.

The Boston Diagnostic Aphasia Examination test incorporates exercises that extensively evaluate the patient's language skills.

A comprehensive diagnosis will also include a Computerized Tomography (CT) or Magnetic Resonance Imaging (MRI) scan to determine the location and degree of brain damage that has caused the aphasia.

Speech and language therapy is the only treatment for aphasia. Most people do not regain full use of their communication skills, but speech therapy can bring about a significant improvement, even with global aphasia.

Speech therapy aims to achieve:

– better use of the existing language abilities;
– improving language skills by relearning them;
– ability to communicate in a different way, making up for missing words in speech.

As there are different levels of aphasia, and not everyone learns in the same way, speech and language therapy techniques will vary.

II. Match the beginning and the end of the sentences.

1) Aphasia can happen as a result of	a) widespread damage right through the language centre.
2) Fluent aphasia normally results from damage	b) is referred to as the language centre.
3) Global aphasia happens when there is	c) can also make speech production or writing more difficult.
4) Most people do not regain	d) and described as halting and effortful.
5) Speech production is often short,	e) but they have difficulty naming objects and words.
6) The Boston Diagnostic Aphasia Examination test incorporates	f) full use of their communication skills.
7) The part of the brain that controls speech and language recognition	g) noticeable difficulty with their use of speech and language.
8) The person may produce grammatically accurate language,	h) exercises that extensively evaluate the patient's language skills.
9) The person with aphasia will normally have	i) brain damage linked to Alzheimer's disease or stroke.
10) Weakness or paralysis on one or both sides of the face or body	j) to the temporal lobe, or the side of brain

III. Answer the questions.

1. What exercises can help assess the patient's language skills?
2. Why does a speech-language pathologist conduct an evaluation soon after the patient has had a stroke?
3. What kinds of aphasia can you name?
4. What difficulties do people with aphasia normally have?
5. Do most people regain full use of their communication skills?
6. What does a comprehensive diagnosis include?
7. What are the symptoms of anomic aphasia?
8. What is global aphasia characterised by?
9. When does non-fluent aphasia happen?
10. What areas does the language centre include?

IV. Summarize the main ideas of the text.

VOCABULARY FOCUS

I. Find in the text the English equivalents for the following words and phrases.

Всесторонне оценивать, достигать, афазия, беглый, опухоль головного мозга, травматическое повреждение головного мозга, височная доля, нетронутый, глотать, инсульт, оценка, существенное улучшение, поддерживать разговор, определять местонахождение, бессвязный, сбивчивый.

II. Match the words to make word combinations.

1) Alzheimer's	a) aphasia
2) anomic	b) a conversation
3) brain	c) accurate
4) Broca's	d) tumour
5) comprehensive	e) intact
6) computerized	f) area
7) grammatically	g) diagnosis
8) hold	h) tomography
9) irrelevant	i) disease
10) remain	j) words

III. Insert the missing words.

1. The type of aphasia depends on which part of the … is damaged.
2. Listening and reading may … intact.
3. A speech-language pathologist will conduct an … to diagnose aphasia.

4. Speech and language therapy is the only … for aphasia.
5. People become frustrated at their … to express themselves.
6. Speech therapy can … about a significant improvement.
7. The muscles used to … or swallow can be affected.
8. Speech therapy aims to … better use of the existing language abilities.
9. The part of the brain that controls speech and language recognition is referred to as the … centre.
10. Speech production is often described as … and effortful.

IV. Insert the missing prepositions.

1. The person with aphasia will have difficulty … their use of speech and language.
2. People may become frustrated … their inability to express themselves.
3. Aphasia often happens as the result … a stroke.
4. Name objects that begin … C.
5. Paralysis has an impact … the production of sounds.
6. They may talk … the word as they try to explain themselves.
7. Aphasia happens when there is damage … these parts of the brain.
8. Speech and language therapy is the only treatment … aphasia.
9. Speech therapy can bring … a significant improvement.
10. The type of difficulty will be different according … the type of aphasia.

ADDITIONAL PRACTICE

I. Skim the text to find out the main goals pursued in the course of aphasia treatment.

TREATMENT OF APHASIA

Aphasia treatment is individualized to address the specific areas of need identified during assessment, including specific goals identified by the person with aphasia and his or her family.

The goal of intervention is to help the individual achieve the highest level of independent function for participation in daily living. Intervention is designed to capitalize on strengths and address weaknesses related to underlying structures and functions that affect communication across partners, activities, and settings; facilitate the individual's activities and participation by teaching new skills and compensatory strategies to both the individual with aphasia and his or her partner(s); and modify contextual factors that serve as barriers and enhance those that facilitate successful communication and participation,

including accommodations such as large print, pictures, and aphasia-friendly formatting to support comprehension of written health materials.

Person- and family-centred care is a collaborative approach grounded in a mutually beneficial partnership among individuals, families, and clinicians. Each party is equally important in the relationship, and each party respects the knowledge, skills, and experiences that the others bring to the process. This approach to care incorporates individual and family preferences and priorities and offers a range of services, including counselling and emotional support, providing information and resources, coordinating services, and teaching specific skills to facilitate communication.

Treatment can be restorative (i. e., aimed at improving or restoring impaired function) and/or compensatory (i. e., aimed at compensating for deficits not amenable to retraining). Approaches aimed at improving impairments focus on "body functions/structures". Approaches aimed at compensating for impairments are directed at "activities/participation". The outcomes of both treatment approaches may extend across domains.

Specific treatment protocols will vary, based on each individual's unique language profile and communication needs. The ultimate goal of treatment is to maximize quality of life and communication success, using the approach or combination of approaches that best meets the individual's needs.

II. Using clichés from the Annex make a synopsis of the text.

III. Read the text and define its main idea. Translate the text in writing.

APHASIA TREATMENT OPTIONS

Listed below are brief descriptions of both general and specific treatment options for individuals with aphasia, grouped by category.

Community Aphasia Groups provide treatment and support for people with aphasia that can improve linguistic functioning in a naturalistic setting and enhance social networks. Groups also offer individuals and family members an opportunity to socialize, converse, share ideas and feelings, receive support, and learn more about aphasia and aphasia resources.

Life Participation Approach to Aphasia (LPAA) is a general philosophy and model of consumer-driven service delivery and not a specific clinical approach. LPAA largely takes place at home and in the community and focuses on long-term management of aphasia. It begins with an initial assessment and places the life concerns of the person with aphasia and others affected by it at the center of decision making.

LPAA helps the person with aphasia reengage in life through daily participation in activities of his or her choice. Motivation and a consistent, dependable support system are essential to full participation.

Computer-based treatment involves the use of computer technology (e. g., touchscreen tablets) and/or software programs to target various language skills and modalities. Several currently available programs generate data about the individual's progress on specific tasks; these data can be used in clinical documentation.

Conversational Coaching is a treatment designed to teach verbal and nonverbal communication strategies to individuals with aphasia and their primary communication partners (e. g., spouse). Strategies can include drawing, gesturing, cueing, confirming information, and summarizing information. Strategies are chosen by the individual and his or her communication partner and are practised in scripted conversations. The speech-language pathologist serves as the "coach" for both partners.

V. Use your English.

In pairs prepare a report on aphasia treatment techniques. Add information from other sources.

UNIT 7. DYSARTHRIA

I. Enrich your vocabulary.

cerebellum, *n.*	мозжечок
dysarthria, *n.*	дизартрия
fibre, *n.*	волокно
ganglia, *n.*	нервные узлы
impaired, *adj.*	поврежденный, нарушенный
motor, *adj.*	моторный, двигательный
severity, *n.*	степень выраженности
spinal cord	спинной мозг
substantia nigra	черное вещество
transfer, *v.*	передавать

II. Match the words and their definitions. Consult the glossary if necessary.

1) ataxic	a) intensity or sharpness, as of cold or pain
2) cerebellum	b) characterized by an abnormal amount of uncontrolled muscular action
3) distraction	c) a specialized, impulse-conducting cell that is the functional unit of the nervous system, consisting of the cell body and its processes, the axon and dendrites
4) flaccid	d) pertaining to, of the nature of, or characterized by spasm, especially tonic spasm
5) hyperkinetic	e) any localized, abnormal structural change in the body
6) lesion	f) a hardening or induration of a tissue or part, or an increase of connective tissue or the like at the expense of more active tissue
7) neuron	g) something that distracts, divides the attention, or prevents concentration
8) sclerosis	h) characterized by loss of coordination of the muscles, especially of the extremities
9) severity	i) lacking force
10) spastic	j) a large portion of the brain, serving to coordinate voluntary movements, posture, and balance in humans, being in back of and below the cerebrum and consisting of two lateral lobes and a central lobe

III. Match the words with the ones with the similar meanings. Consult the glossary if necessary.

1) disease	a) therapy
2) flaccid	b) illness
3) goal	c) pass
4) improve	d) aim
5) injury	e) weak
6) rate	f) deliberate
7) support	g) trauma
8) transfer	h) reinforcement
9) treatment	i) tempo
10)voluntary	j) enhance

IV. Match the words with the ones with the opposite meanings. Consult the glossary if necessary.

1) abnormal	a) fully
2) better	b) general
3) clear (speech)	c) multiple
4) increase	d) weaken
5) partially	e) worse
6) single	f) hinder
7) specific	g) regular
8) strengthen	h) lower
9) support	i) mumbling
10)upper	j) decrease

READING

I. Read the text and pick out information a) of primary importance and b) new to you.

WHAT IS DYSARTHRIA?

Dysarthria is a motor speech disorder. It results from impaired movement of the muscles used for speech production, including the lips, tongue, vocal folds, and/or diaphragm. The type and severity of dysarthria depend on which area of the nervous system is affected.

A person with dysarthria may demonstrate the following speech characteristics: slurred, choppy, or mumbled speech that may be difficult to understand; slow rate of speech; rapid rate of speech with a mumbling quality;

limited tongue, lip, and jaw movement; abnormal pitch and rhythm when speaking; changes in voice quality, such as hoarse or breathy voice or speech that sounds nasal or stuffy.

Dysarthria is caused by damage to the brain. This may occur at birth, as in cerebral palsy or muscular dystrophy, or may occur later in life due to one of many different conditions that involve the nervous system, including stroke, brain injury, tumours, Parkinson's disease, Lou Gehrig's disease/amyotrophic lateral sclerosis (ALS), Huntington's disease, multiple sclerosis.

A speech-language pathologist (SLP) can evaluate a person with speech difficulties and determine the nature and severity of the problem. The SLP will look at movement of the lips, tongue, and face, as well as breath support for speech and voice quality. The assessment will also include an examination of speech production in a variety of contexts.

Treatment depends on the cause, type, and severity of the symptoms. An SLP works with the individual to improve communication abilities. Some possible goals of treatment include: slowing the rate of speech; improving the breath support so that the person could speak more loudly; strengthening muscles, increasing tongue and lip movement; improving speech sound production to make speech clearer; teaching caregivers, family members, and teachers strategies to better communicate with the person with dysarthria; and, in severe cases, learning to use alternative means of communication (e. g., simple gestures, alphabet boards, or electronic or computer-based equipment).

There are six main types of dysarthria: spastic, hyperkinetic, hypokinetic, ataxic, flaccid, and mixed dysarthria.

Spastic dysarthria results from damage to the upper motor neuron nerve fibres. The upper motor neurons start in the cerebral cortex or brain stem and transfer information to specific areas of the spinal cord. From the spinal cord, the information is then transferred via spinal lower motor neurons.

Hyperkinetic dysarthria results from lesions on the basal ganglia (which helps control voluntary motor movements).

Hypokinetic dysarthria results from lesions on the substantia nigra (a structure in the mid-brain partially responsible for movement); this form is usually due to Parkinson's disease but may also develop after a type of head injury.

Ataxic dysarthria results from damage to the cerebellar control unit (the cerebellum is largely responsible for motor movements)

Flaccid dysarthria results from damage to the lower motor neuron nerve fibres. All voluntary movement is controlled by lower motor neurons in the spinal column. Lower motor neurons found in the brain are responsible for chewing, swallowing, and talking.

Mixed dysarthria results from damage to both the upper and lower motor neuron nerve fibres.

It is important for both the person with dysarthria and the people he or she communicates with to work together to improve interactions. Here are some tips for both speaker and listener.

Tips for people with dysarthria:

– Introduce your topic with a single word or short phrase before beginning to speak in more complete sentences.

– Check with the listeners to make sure that they understand you.

– Speak slowly and loudly and pause frequently.

– Try to limit conversations when you feel tired – when your speech will be harder to understand.

– If you become frustrated, try to use other methods, such as pointing or gesturing, to get your message across or take a rest and try again later.

– Children may need additional help to remember to use these strategies.

Tips for the listener:

– Reduce distractions and background noise.

– Pay attention to the speaker.

– Watch the person as he or she talks.

– Let the speaker know when you have difficulty understanding him or her.

– Repeat only the part of the message that you understood so that the speaker does not have to repeat the entire message.

– If you still don't understand the message, ask yes/no questions or have the speaker write his or her message to you.

II. Match the beginning and the end of the sentences.

1) Dysarthria results from impaired movement of the muscles	a) damage to the lower motor neuron nerve fibres.
2) Flaccid dysarthria results from	b) are responsible for chewing, swallowing, and talking.
3) Children may need additional help	c) to improve communication abilities
4) Lower motor neurons found in the brain	d) which area of the nervous system is affected.
5) The type and severity of dysarthria depend on	e) an examination of speech production in a variety of contexts.
6) The assessment will also include	f) via spinal lower motor neurons.
7) An SLP works with the individual	g) used for speech production.
8) Hyperkinetic dysarthria results	h) ask yes/no questions or have the speaker write his or her message to you.
	i) to remember to use these strategies.

from	j) lesions on the basal ganglia
9) From the spinal cord, the information is then transferred	
10) If you still don't understand the message,	

III. Answer the questions.

1. How many types of dysarthria are there? What are they?
2. What is the difference between hyperkinetic and hypokinetic dysarthria?
3. What causes dysarthria?
4. What diseases trigger the onset of the disorder?
5. What speech characteristics may a person with dysarthria demonstrate?
6. What do the type and severity of dysarthria depend on?
7. What is flaccid dysarthria?
8. What should a person with dysarthria do to put their thoughts across to the listener?
9. What should a listener do to facilitate communication?
10. How does a speech-language pathologist can evaluate a person with speech difficulties and determine the nature and severity of the problem?

IV. Summarize the main ideas of the text.

VOCABULARY FOCUS

I. Find in the text the English equivalents for the following words and phrases.

Взаимодействие, кора головного мозга, спинной мозг, ствол головного мозга, мозжечковый, травма головы, инсульт, опухоль, рассеянный склероз, средства общения, периферические (нижние) двигательные нейроны, центральные (верхние) двигательные нейроны, бессвязная речь, жесты, быстрый темп.

II. Match the words to make word combinations.

1) alternative	a) system
2) basal	b) means
3) control	c) nigra
4) flaccid	d) ganglia
5) motor	e) quality
6) nerve	f) unit
7) nervous	g) movement
8) substantia	h) neurons

9) voice	i) fibres
10)voluntary	j) dysarthria

III. Insert the missing words.

1. Voluntary movement is controlled by lower … neurons in the spinal column.
2. Spastic dysarthria results from damage to the upper motor … nerve fibres.
3. The upper motor neurons start in the … cortex.
4. There are … main types of dysarthria.
5. Check with the listeners to make … that they understand you.
6. Speak slowly and … and pause frequently.
7. Children may need … help to remember to use these strategies.
8. Repeat only the part of the … that you understood.
9. Lower motor neurons found in the … are responsible for chewing, swallowing, and talking.
10. Dysarthria results from … movement of the muscles used for speech production.

IV. Insert the missing prepositions.

1. Treatment depends … the cause, type, and severity of the symptoms.
2. Dysarthria is caused … damage … the brain.
3. Mixed dysarthria results from damage … both the upper and lower motor neuron nerve fibres.
4. This may occur … birth or later … life.
5. Introduce your topic … a single word or short phrase.
6. The SLP will look … movement of the lips, tongue, and face.
7. Hypokinetic dysarthria results … lesions … the substantia nigra.
8. The information is transferred … spinal lower motor neurons.
9. The upper motor neurons start … the cerebral cortex and transfer information … specific areas … the spinal cord.
10. This form is usually due … Parkinson’s disease but may also develop … head injury.

ADDITIONAL PRACTICE

I. Skim the text and describe the procedure of collecting speech data with the help of an articulograph.

RARE INSTRUMENT COLLECTS SPEECH DATA FOR DYSARTHRIA PATIENTS

In an effort to create a speech intervention program for patients with the motor speech disorder dysarthria, speech-language pathologist Jimin Lee is using a rare instrument to analyse patients' ability to move various muscles involved in speech production.

Dysarthria may produce unusually slow, unusually fast, slurred, or disrupted speech that is difficult for listeners to understand. Lee is studying patients who suffer the disorder as a secondary result of ALS and other neurological conditions.

The instrument Lee is using, a portable electromagnetic articulograph, is one of just 13 like it in the United States. Also known as the Wave system, the instrument measures the movement of the tongue, lips, jaw and other structures important in speech production using an electromagnetic field, while simultaneously recording the sounds made by the patient.

The instrument is housed in the Speech Production Laboratory in the Ford Building but is portable enough to allow Lee to take it out of the laboratory and directly to patients, including some at Penn State Milton S. Hershey Medical Centre and HMS School for Children with Cerebral Palsy in Philadelphia.

Using the instrument involves attaching sensors to a patient's tongue to trace its movement during speech production. Patients are asked to read a specific set of words and sentences. The tool is attached to a microphone and a computer, which stores the data.

Lee compares tongue movement data from dysarthria patients with data from people who do not have speech disorders. Additionally, she plays audio recordings of patients' speech for third-party listeners who then rate how understandable the speech is.

"The ultimate goal is to identify movement to improve patients' speech intelligibility or the amount of words others can understand," Lee said. "In patients with ALS, for example, 95 percent lose their speech. We are trying to find a way to enhance their speech intelligibility by looking at tongue movement characteristics."

The research is ongoing. Once sufficient data is collected, Lee will analyse the findings. Ultimately, she hopes the data will lead to better programs to improve patients' speech.

"Hopefully, we can strengthen our clinical intervention by providing more evidence and concrete foundation for maximized outcomes for people with dysarthria," Lee said.

II. Using clichés from the Annex make a synopsis of the text.

III. Read the text and define its main idea. Translate the text in writing.

DYSARTHRIA AND ME – THREE TIPS FOR MANAGING THIS SPEECH DISORDER

Today I would like to talk about a condition called dysarthria. Stroke survivors often suffer from a condition called Aphasia but little is known about dysarthria.

Dysarthria happens when a stroke causes weakness of the muscles you use to speak. This may affect the muscles, as a result you have to move your tongue, lips or mouth when you speak.

I have dyspraxia and I find it difficult to pronounce my words, at times I have to repeat myself, which can result in people trying to correct me. If you have dysarthria, your voice may sound different and you may have difficulty speaking clearly. You may also find your voice sounds slurred, strained, quiet or slow. Other people may find your voice hard to understand. If breath control is affected, you may need to speak in short bursts rather than in complete sentences. Dysarthria does not affect your ability to find the words you want to say, unless you have other communication problems at the same time.

Here are three tips for managing dysarthria:

Be patient – you are on a journey and your recovery will take time. Do not be discouraged because you WILL get better.

Develop your confidence – the only way to get better at something is to practise, don't be scared to speak in groups or with your family and friends. The more you speak the more confident you will get.

Share your stories – many people do not know about dysarthria. It is important that you make people aware of your condition so that they can support you where possible, if you don't tell them they will not know.

IV. Use your English.

In pairs prepare a report on dysarthria treatment techniques. Add information from other sources.

UNIT 8. RHINOLALIA

I. Enrich your vocabulary.

cinefluoroscopy, *n.*	кинофлюорография
cleft palate	расщелина нёба
hypernasal, *adj.*	гнусавый
intervention, *n.*	вмешательство
nasality, *n.*	назальность, гнусавость
orifice, *n.*	отверстие
surgically, *adv.*	хирургическим путем
velopharyngeal, *adj.*	нёбно-глоточный
velum, *n.*	мягкое нёбо
vocal tract	голосовой (речевой) тракт

II. Match the words and their definitions. Consult the glossary if necessary

1) acoustic	a) a nasal tone in speech
	b) designed for controlling sound
2) adenoidectomy	c) an examination by means of an endoscope
	d) a circular band of voluntary or involuntary
3) anatomy	muscle that encircles an orifice of the body or one of its hollow organs
4) cavity	e) the structure of an animal or plant, or of any of its parts
5) endoscopy	f) surgical removal of the adenoids
	g) pronounced with the voice issuing through the
6) nasal	nose, either partly, as in French nasal vowels, or entirely (as in m, n, or the ng of song)
7) ratio	h) a membranous fold or other structure that controls the flow of a fluid, as one that permits
8) rhinolalia	blood to flow in one direction only
	i) a hollow space within the body, an organ, a bone,
9) sphincter	etc.
	j) the relation between two similar magnitudes with
10) valve	respect to the number of times the first contains the second

III. Match the words with the ones with the similar meanings. Consult the glossary if necessary.

1) abnormal	a) deficit
2) beneath	b) dysfunction

3) degree	c) below
4) disorder	d) final
5) incomplete	e) deviating
6) lack	f) proportion
7) primary	g) elevate
8) raise	h) partial
9) ratio	i) extent
10) ultimate	j) main

IV. Match the words with the ones with the opposite meanings. Consult the glossary if necessary.

1) incomplete	a) decreased
2) soft	b) secondary
3) increased	c) weaken
4) primary	d) drop
5) abnormal	e) constant
6) raise	f) hard
7) lack	g) above
8) strengthen	h) full
9) beneath	i) excess
10) variable	j) regular

READING

I. Read the text and pick out information a) of primary importance and b) new to you.

HYPERNASAL SPEECH

Hypernasal speech (also hyperrhinolalia or open nasality; medically known as Rhinolalia aperta from Latin rhinolalia ‘nasal speech’ and aperta ‘open’) is a disorder that causes abnormal resonance in a human’s voice due to increased airflow through the nose during speech. It is caused by an open nasal cavity resulting from an incomplete closure of the soft palate and/or velopharyngeal sphincter. In normal speech, nasality is referred to as nasalization and is a linguistic category that can apply to vowels or consonants in a specific language. The primary underlying physical variable determining the degree of nasality in normal speech is the opening and closing of a velopharyngeal passageway between the oral vocal tract and the nasal vocal tract. In the normal vocal tract anatomy, this opening is controlled by lowering

and raising the velum or soft palate, to open or close, respectively, the velopharyngeal passageway.

The general term for disorders of the velopharyngeal valve is velopharyngeal dysfunction (VPD). It includes three subterms: velopharyngeal insufficiency, velopharyngeal inadequacy, and velopharyngeal mislearning.

Velopharyngeal insufficiency can be caused by an anatomical abnormality of the throat. It occurs in children with a history of cleft palate or submucous cleft, who have short or otherwise abnormal vela. Velopharyngeal insufficiency can also occur after adenoidectomy.

Velopharyngeal incompetence is a defective closure of the velopharyngeal valve due to its lack of speed and precision. It is caused by a neurologic disorder or injury (e. g. cerebral palsy or traumatic brain injury).

Sometimes children present no abnormalities yet still have hypernasal speech: this can be due to *velopharyngeal mislearning*, indicating that the child has been imitating or has never learned how to use the valve correctly.

There are several methods for diagnosing hypernasality.

A speech therapist listens to and records the child while analysing perceptual speech. In hypernasality, the child cannot produce oral sounds (vowels and consonants) correctly. Only the nasal sounds can be correctly produced. A hearing test is also desirable.

A mirror is held beneath the nose while the child pronounces the vowels. Nasal air escape, and thus hypernasality is indicated if the mirror fogs up.

A pressure-flow technique is used to measure velopharyngeal orifice area during the speech. The patient must be at least three to four years old.

A video nasopharyngeal endoscopy observes velopharyngeal function, movements of the soft palate, and pharyngeal walls. It utilises a very small scope placed in the back of the nasal cavity. The doctor will then ask the child to say a few words. The patient must be at least three to four years old to ensure cooperation.

A cinefluoroscopy gives dynamic visualisation and can easier be applied to younger children, though it has the disadvantage of exposing the patient to radiation.

A nasometer calculates the ratio of nasality. The patient wears a headset, where the oral and nasal cavities are separated by a plate. On both sides of the plate are microphones. The ratio calculated by the nasometer indicates the amount of nasality, with a higher ratio indicating more nasality.

In cases of muscle weakness or cleft palate, special exercises can help strengthen the soft palate muscles with the ultimate aim of decreasing airflow through the nose and thereby increasing intelligibility. Intelligibility requires the ability to close the nasal cavity, as all English sounds, except “m”, “n”, and

“ng”, have airflow only through the mouth. Normally, by the age of three, a child can raise the muscles of the soft palate to close the nasal cavity.

Without the use of a technological aid, nasal emission is sometimes judged by listening for any turbulence that may be produced by the nasal airflow, as when there is a small velopharyngeal opening and there is some degree of mucous in the opening. More directly, methods recommended include looking for the fogging of a mirror held near the nares or listening through a tube, the other end of which is held in or near a nares’ opening.

There have been many attempts to use technological augmentation more than a mirror or tube to aid the speech pathologist or provide meaningful feedback to the person attempting to correct their hypernasality. Among the more successful of these attempts, the incompleteness of velopharyngeal closure during vowels and sonorants that causes nasal resonance can be estimated and displayed for evaluation or biofeedback in speech training through the nasalance of the voice, with nasalance defined as a ratio of acoustic energy at the nostrils to that at the mouth, with some form of acoustic separation present between the mouth and nose. In the nasalance measurement system sold by WEVOSYS, the acoustic separation is provided by a mask-tube system, nasalance measurement system sold by Kay-Pentax, the acoustic separation is provided by a solid flat partition held against the upper lip, while in the system sold by Glottal Enterprises the acoustic separation can be by either a solid flat partition or a two-chamber mask.

However, devices for measuring nasalance do not measure nasal emission during pressure consonants. Because of this, a means for measuring the degree of velopharyngeal closure in consonants is also needed. A commercially available device for making such measurements is the Perci-Sar system from Microtronics. The Nasality Visualization System from Glottal Enterprises allows both the measurement of Nasal Emission and Nasalance. In the presence of a cleft palate, either of these systems can be helpful in evaluating the need for an appliance or surgical intervention to close the cleft or the success of an appliance or a surgical attempt to close the cleft.

If a child finds it difficult to blow, pinching the nose can help regulate airflow. The child should then practise speech sounds without pinching the nose. These exercises only work as treatments if hypernasality is small. Severe deviations should be treated surgically.

II. Match the beginning and the end of the sentences.

1) A speech therapist listens to and records the child	a) do not measure nasal emission during pressure consonants.
2) A video nasopharyngeal endoscopy observes	b) raise the muscles of the soft palate to close the nasal cavity.

3) By the age of three, a child can	c) while analysing perceptual speech.
4) Devices for measuring nasalance	d) indicates the amount of nasality.
5) Nasal emission is sometimes judged by listening for any turbulence	e) velopharyngeal function, movements of the soft palate, and pharyngeal walls.
6) Nasalance is defined as a ratio of acoustic energy at the nostrils to that at the mouth,	f) to aid the speech pathologist or provide meaningful feedback to the person attempting to correct their hypernasality.
7) Sometimes children present no abnormalities	g) is the opening and closing of a velopharyngeal passageway between the oral vocal tract and the nasal vocal tract.
8) The primary underlying physical variable determining the degree of nasality in normal speech	h) that may be produced by the nasal airflow.
9) The ratio calculated by the nasometer	i) with some form of acoustic separation present between the mouth and nose.
10) There have been many attempts to use technological augmentation more than a mirror or tube	j) yet still have hypernasal speech.

III. Answer the questions.

1. What methods are used to diagnose hypernasality?
2. What subterms does velopharyngeal dysfunction include?
3. What device is used to calculate the ratio of nasality?
4. How is hypernasal speech defined?
5. What nasalance measurement systems are mentioned in the text? What is the difference between them?
6. Do devices for measuring nasalance measure nasal emission during pressure consonants?
7. How should severe deviations be treated?
8. What can help regulate airflow if a child finds it difficult to blow?
9. How old must a patient be to apply a pressure-flow technique?
10. What does a video nasopharyngeal endoscopy observe?

IV. Summarize the main ideas of the text.

VOCABULARY FOCUS

I. Find in the text the English equivalents for the following words and phrases.

Затумaниваться, подвергать излучению, сонант, трубка, оценка, соотношение, расщелина нёба, носовая полость, обеспечивать, отверстие, мягкое нёбо, вмешательство, недостаточность, нёбно-глоточный, гнусавость, гласный звук, неполное смыкание, поток воздуха, хирургический, устройство, разборчивость, подслизистый.

II. Match the words to make word combinations.

1. flat	a) resonance
2. hearing	b) system
3. mask-tube	c) palate
4. meaningful	d) intervention
5. nasal	e) partition
6. pharyngeal	f) airflow
7. pressure-flow	g) test
8. regulate	h) feedback
9. soft	i) walls
10. surgical	j) technique

III. Insert the missing words.

1. A nasometer calculates the … of nasality.
2. Hypernasality is indicated if the … fogs up.
3. Hypernasal speech is a disorder that causes abnormal … in a human's voice.
4. The ratio calculated by the nasometer indicates the amount of … .
5. Special exercises can help strengthen the soft … muscles.
6. Nasality is a … category that can apply to vowels or consonants in a specific language.
7. There is a small … opening with some degree of mucous.
8. Sometimes children present no … yet still have hypernasal speech.
9. This opening is controlled by lowering and raising the … or soft palate.
10. By the age of three, a child can raise the … of the soft palate to close the nasal cavity.

IV. Insert the missing prepositions.

I. Nasality is referred … as nasalization.

II. Nasal emission is sometimes judged … listening … any turbulence that may be produced … the nasal airflow.

III. The child should then practise speech sounds … pinching the nose.

IV. In the presence … a cleft palate, either … these systems can be helpful … evaluating the need … an appliance or surgical intervention to close the cleft.

V. The patient must be … least three … four years old to ensure cooperation.

VI. The acoustic separation is provided ... a solid flat partition held ... the upper lip.

VII. Methods recommended include looking ... the fogging ... a mirror held ... the nares or listening ... a tube.

VIII. Velopharyngeal incompetence is a defective closure ... the velopharyngeal valve due ... its lack ... speed and precision.

IX. Rhinolalia is caused … an open nasal cavity resulting … an incomplete closure … the soft palate and/or velopharyngeal sphincter.

X. Hypernasality is indicated if the mirror fogs … .

ADDITIONAL PRACTICE

I. Skim the text and describe the causes and treatment of nasality.

WHAT IT MEANS TO HAVE A NASALLY VOICE

Everyone has a slightly different voice quality. People with a nasal voice can sound as though they're speaking through a clogged-up or runny nose, which are both possible causes. Your speaking voice is created when air leaves your lungs and flows upward through your vocal cords and throat into your mouth. The resulting sound quality is called resonance.

As you speak, your soft palate on the roof of your mouth rises until it presses against the back of your throat. This creates a seal that controls the amount of air that passes through your nose depending on the sounds you speak.

The soft palate and side and back walls of your throat together form a gateway called the velopharyngeal valve. If this valve doesn't work properly, it can create changes in speech.

There are two types of nasal voices:

Hyponasal. Speech is caused by too little air getting through your nose while you speak. As a result, the sound doesn't have enough resonance.

Hypernasal. Speech is caused by too much air leaking out through your nose while you speak. The air gives the sound too much resonance.

If you feel you have a nasal voice that needs attention, especially if this change is new, see an ear, nose, and throat (ENT) doctor. Many of the conditions that cause a nasal voice are very treatable.

A speech-language therapist will suggest exercises for you to practise at home. Repetition and regular practice is important. Despite some common

recommendations, blowing and sucking exercises don't help keep the velopharyngeal valve closed.

A better approach is to practise speaking the way your therapist suggests. Talk, sing, and vocalize as much as you can to help change the quality of your voice if desired.

If you have a condition causing a nasal voice, there are many treatments available. Structural problems like polyps and a deviated septum can be fixed with surgery. Speech-language therapy can help you control the movement of air through your mouth and nose, so you can speak more clearly and confidently.

However, remember that everyone's voice is unique. If you feel your voice has a nasal quality but you don't have any of the medical conditions we've mentioned, consider embracing it as part of you. We are often more critical about our own voices than others are. It may be that others have either not noticed anything about your voice or find that it makes you unique in a positive way.

II. Using clichés from the Annex make a synopsis of the text.

III. Read the text and define its main idea. Translate the text in writing.

EFFICACY OF CONTINUOUS POSITIVE AIRWAY PRESSURE FOR TREATMENT OF HYPERNASALITY

Objective: To determine whether speech hypernasality in subjects born with cleft palate can be reduced by graded velopharyngeal resistance training against continuous positive airway pressure (CPAP).

Design: Pre-treatment versus immediate post-treatment comparison study.

Setting: Eight university and hospital speech clinics.

Patients: Forty-three subjects born with cleft palate, aged 3 years 10 months to 23 years 8 months, diagnosed with speech hypernasality.

Intervention: Eight weeks of 6 days per week in-home speech exercise sessions, increasing from 10 to 24 minutes, speaking against trans-nasal CPAP increasing from 4 to 8.5 cm H_2O.

Main outcome measures: Pre-treatment to immediate post-therapy change in perceptual nasality score based on blinded comparisons of subjects' speech samples to standard reference samples by six expert clinician-investigators.

Results: Participating clinical centres treated from two to nine eligible subjects, and results differed significantly across centres (interaction $p = 0.04$). Overall, there was statistically significant reduction in mean nasality score after 8 weeks of CPAP therapy, whether weighted equally

across patients (mean reduction = 0.20 units on a scale of 1.0 to 7.0, p = 0.16) or across clinical centres (mean = 0.19, p = 0.46). This change was about one-sixth the maximum possible reduction from pre-treatment. Nine patients showed reductions of at least half the maximum possible, but hypernasality of eight patients increased at least 30 % above pre-treatment level. Most improvement was seen during the second month when therapy was more intense (p = 0.45 for nonlinearity). No interactions with age or sex were detected.

Conclusion: Patients receiving 8 weeks of velopharyngeal CPAP resistance training showed a net overall reduction in speech hypernasality, although response was quite variable across patients and clinical centres. The net reduction in hypernasality is not readily explainable by random variability, subject maturation, placebo effect, or regression to the mean. CPAP appears capable of substantially reducing speech hypernasality for some subjects with cleft palate.

IV. Use your English.

In pairs prepare a report on rhinolalia treatment techniques. Add information from other sources.

UNIT 9. DYSLEXIA

I. Enrich your vocabulary.

attention-deficit / hyperactivity disorder	синдром дефицита внимания и гиперактивности (СДВГ)
common, *adj*.	распространенный
comprehend, *v*.	понимать, осмысливать
disorder, *n*.	нарушение, расстройство
grasp, *v*.	схватывать
inherited, *adj*.	наследственный
kindergarten, *n*.	детский сад
lag behind	отставать
nursery rhymes	детские стихи
sequence, *n*.	последовательность

II. Match the words and their definitions. Consult the glossary if necessary.

1) academic
2) clue
3) dyslexia
4) idiom
5) inherit
6) kindergarten
7) pronunciation
8) rhyme

a) anything that serves to guide or direct in the solution of a problem, mystery, etc.

b) the act or result of producing the sounds of speech, including articulation, stress, and intonation, often with reference to some standard of correctness or acceptability

c) a person employed to instruct another in some branch or branches of learning, especially a private instructor

d) any of various reading disorders associated with impairment of the ability to interpret spatial relationships or integrate auditory and visual information

e) identity in sound of some part, especially the end, of words or lines of verse

f) pertaining to areas of study that are not primarily vocational or applied, as the humanities or pure mathematics

g) an expression whose meaning is not predictable from the usual meanings of its constituent elements or from the general grammatical rules of a language and that is not a constituent of a larger expression of like characteristics

h) state or express in a concise form

9) summarize	i) a school or class for young children between the ages of four and six years old
10) tutor	j) to take or receive (property, a right, a title, etc.) by succession or will, as an heir

III. Match the words with the ones with the similar meanings. Consult the glossary if necessary.

1) apparent	a) start
2) basic	b) regular
3) below	c) turn
4) common	d) strange
5) comprehend	e) evident
6) convert	f) under
7) enter (school)	g) hinder
8) normal	h) widespread
9) prevent	i) understand
10)unfamiliar	j) fundamental

IV. Match the words with the ones with the opposite meanings. Consult the glossary if necessary.

1) below	a) impaired
2) common	b) deteriorate
3) continue	c) facilitate
4) deficit	d) difference
5) foreign	e) surplus
6) improve	f) different
7) normal	g) interrupt
8) prevent	h) native
9) similar	i) above
10)similarity	j) rare

READING

I. Read the text and pick out information a) of primary importance and b) new to you.

DYSLEXIA: SYMPTOMS AND TREATMENT

Dyslexia is a learning disorder characterized by difficulty reading due to problems identifying speech sounds and learning how they relate to letters and words. Also called specific reading disability, dyslexia is a common learning

disability in children. Dyslexia occurs in children with normal vision and intelligence. Sometimes dyslexia goes undiagnosed for years and isn't recognized until adulthood.

There's no cure for dyslexia. It's a lifelong condition caused by inherited traits that affect how your brain works. However, most children with dyslexia can succeed in school with tutoring or a specialized education program. Emotional support also plays an important role.

Dyslexia symptoms can be difficult to recognize before your child enters school, but some early clues may indicate a problem. Once your child reaches school age, your child's teacher may be the first to notice a problem. The condition often becomes apparent as a child starts learning to read.

Signs and symptoms that a little child may be at risk of dyslexia include:

- late talking;
- learning new words slowly;
- difficulty learning nursery rhymes;
- difficulty playing rhyming games.

Once your child is in school, dyslexia signs and symptoms may become more evident, including:

- reading well below the expected level for your child's age;
- problems processing and understanding what he or she hears;
- difficulty comprehending rapid instructions;
- problems remembering the sequence of things;
- difficulty seeing (and occasionally hearing) similarities and differences in letters and words;
- inability to sound out the pronunciation of an unfamiliar word;
- difficulty spelling;
- trouble learning a foreign language.

Dyslexia symptoms in teens and adults are similar to those in children. Though early intervention is beneficial for dyslexia treatment, it's never too late to seek help. Some common dyslexia symptoms in teens and adults include:

- difficulty reading, including reading aloud;
- trouble understanding jokes or expressions that have a meaning not easily understood from the specific words (idioms), such as "piece of cake" meaning "easy";
- difficulty with time management;
- difficulty summarizing a story;
- trouble learning a foreign language;
- difficulty memorizing;
- difficulty doing math problems.

Dyslexia is characterized by a delay in the age at which a child begins to read. Most children are ready to learn reading by kindergarten or first grade, but children with dyslexia often can't grasp the basics of reading by that time.

Talk with your doctor if your child's reading level is below what's expected for his or her age or if you notice other signs or symptoms of dyslexia. When dyslexia goes undiagnosed and untreated, childhood reading difficulties continue into adulthood.

Dyslexia has been linked to certain genes that control how the brain develops. It appears to be an inherited condition – it tends to run in families.

These inherited traits appear to affect parts of the brain concerned with language, interfering with the ability to convert written letters and words into speech.

Dyslexia risk factors include:

- a family history of dyslexia;
- individual differences in the parts of the brain that enable reading.

Dyslexia can lead to a number of problems, including:

- Trouble learning. Because reading is a skill basic to most other school subjects, a child with dyslexia is at a disadvantage in most classes and may have trouble keeping up with peers.
- Social problems. Left untreated, dyslexia may lead to low self-esteem, behaviour problems, anxiety, aggression, and withdrawal from friends, parents and teachers.
- Problems as adults. The inability to read and comprehend can prevent a child from reaching his or her potential as the child grows up. This can have long-term educational, social and economic consequences.

Children who have dyslexia are at increased risk of having attention-deficit/hyperactivity disorder (ADHD), and vice versa. ADHD can cause difficulty sustaining attention as well as hyperactivity and impulsive behaviour, which can make dyslexia harder to treat.

There's no known way to correct the underlying brain abnormality that causes dyslexia – dyslexia is a lifelong problem. However, early detection and evaluation to determine specific needs and appropriate treatment can improve success.

Dyslexia is treated using specific educational approaches and techniques, and the sooner the intervention begins, the better. Psychological testing will help your child's teachers develop a suitable teaching program.

Teachers may use techniques involving hearing, vision and touch to improve reading skills. Helping a child use several senses to learn – for example, listening to a taped lesson and tracing with a finger the shape of the letters used and the words spoken – can help him or her process the information.

If available, tutoring sessions with a reading specialist can be very helpful for many children with dyslexia. A reading specialist will focus on helping your child:

- learn to recognize the smallest sounds that make up words (phonemes);
- understand that letters and strings of letters represent these sounds;
- comprehend what he or she is reading;
- read aloud;
- build a vocabulary.

If your child has a severe reading disability, tutoring may need to occur more frequently, and progress may be slower.

In the United States, schools have a legal obligation to take steps to help children diagnosed with dyslexia with their learning problems. Talk to your child's teacher about setting up a meeting to create a plan that outlines your child's needs and how the school will help him or her succeed. This is called an Individualized Education Plan (IEP). To receive help, your child may need a structured, written plan.

Children with dyslexia who get extra help in kindergarten or first grade often improve their reading skills enough to succeed in elementary school and high school. Children who don't get help until later grades may have more difficulty learning the skills needed to read well. They're likely to lag behind academically and may never be able to catch up. A child with severe dyslexia may never have an easy time reading, but he or she can learn skills that improve reading. Academic problems don't necessarily mean a person with dyslexia can't succeed. Students with dyslexia can be highly capable, given the right resources. Many people with dyslexia are creative and bright, and may be gifted in math, science or the arts. Some even have successful writing careers.

II. Match the beginning and the end of the sentences.

1) Academic problems don't necessarily mean	a) and isn't recognized until adulthood.
2) Children with dyslexia who get extra help in kindergarten or first grade	b) a person with dyslexia can't succeed.
3) Dyslexia has been linked to certain genes	c) often improve their reading skills enough to succeed in elementary school and high school.
4) Dyslexia is a learning disorder characterized by difficulty reading due to	d) with tutoring or a specialized education program.
5) Dyslexia symptoms can be difficult to recognize before your child enters school,	e) but children with dyslexia often can't grasp the basics of reading by that time.
	f) that control how the brain develops.
	g) problems identifying speech sounds

6) Most children are ready to learn reading by kindergarten or first grade,
7) Most children with dyslexia can succeed in school
8) Once your child reaches school age,
9) Sometimes dyslexia goes undiagnosed for years
10) The inability to read and comprehend can prevent a child from

and learning how they relate to letters and words.
h) reaching his or her potential as the child grows up.
i) your child's teacher may be the first to notice a problem.
j) but some early clues may indicate a problem.

III. Answer the questions.

1. What is dyslexia?
2. What do dyslexia risk factors include?
3. Why can dyslexia symptoms be difficult to recognize?
4. What common symptoms of dyslexia can you name?
5. What legal obligation do American schools have?
6. What does ADHD cause?
7. Why do children with dyslexia need tutoring sessions with a reading specialist?
8. What problems does dyslexia cause?
9. How is dyslexia treated?
10. Why is dyslexia regarded as an inherited condition?

IV. Summarize the main ideas of the text.

VOCABULARY FOCUS

I. Find in the text the English equivalents for the following words and phrases.

СДВГ, распознавать звуки, недиагностированный, отставать, детский сад, поведенческие проблемы, самооценка, беспокойство, неспособность, правописание, ровесники, детские стихи, наследственный, долгосрочный, последствия, удерживать внимание, назначать встречу, навыки, одаренный, лекарство от, начальная школа.

II. Match the words to make word combinations.

1. brain	a) skills
2. elementary	b) condition
3. first	c) specialist

4. impulsive	d) school
5. increased	e) behaviour
6. inherited	f) session
7. reading	g) lesson
8. reading	h) abnormality
9. taped	i) risk
10. tutoring	j) grade

III. Insert the missing words.

1. The sooner the … begins, the better.
2. Dyslexia is a common learning … in children.
3. Dyslexia is characterized by a … in the age at which a child begins to read.
4. Tutoring sessions with a … specialist can be very helpful for many children with dyslexia.
5. Dyslexia is a … problem.
6. Teachers may use … involving hearing, vision and touch to improve reading skills.
7. ADHD can cause difficulty sustaining … as well as hyperactivity and impulsive behaviour.
8. Many people with dyslexia may be … in math, science or the arts.
9. If your child has a … reading disability, tutoring may need to occur more frequently.
10. Children who don't get help until later grades may have more difficulty learning the … needed to read well.

IV. Insert the missing prepositions.

1. Talk … your child's teacher about setting … a meeting to create a plan that outlines your child's needs.
2. Learn to recognize the smallest sounds that make … words (phonemes).
3. Children who don't get help until later grades are likely to lag … academically and may never be able to catch … .
4. Dyslexia has been linked … certain genes that control how the brain develops.
5. A child … dyslexia is … a disadvantage in most classes and may have trouble keeping … with peers.
6. A reading specialist will focus … helping your child learn to recognize the smallest sounds that make … words.
7. There's no cure … dyslexia.
8. Dyslexia is characterized … a delay … the age … which a child begins to read.

9. The inability to read and comprehend can prevent a child … reaching his or her potential as the child grows … .

10. Early intervention is beneficial … dyslexia treatment.

ADDITIONAL PRACTICE

I. Skim the text and find out what assistance was provided to the student with dyslexia to facilitate her academic success.

MY DYSLEXIA DIAGNOSIS

Ever since I can remember, I have been passionate about success. But as I grew older, I began to notice that my learning pattern was different from that of my classmates. I was certain that they weren't achieving success greater than mine, but it seemed as if they were attaining it faster and more easily. I became convinced that I had Attention Deficit Disorder, but my parents were reluctant to proceed with testing since my academic record was so strong. Midway through my high school career they decided to have me tested as well.

When I was diagnosed with dyslexia, I was relieved. Before, I had blamed my various failures on inferior academic abilities. After the diagnosis I began to believe for the first time in a long time that I could adequately do the work and compete with my peers if given an appropriate amount of time to do it and do it well. Even though I was relieved that I had a diagnosis, I still was not completely sure of what it meant to be dyslexic. I didn't write B's instead of D's, which I thought was what dyslexics did. What I learned is that dyslexics take a longer time to read. This means doing most homework will take longer for me than my non-dyslexic peers.

When we notified my school of my disability, I immediately received accommodations in order to put me on an equal playing field of sorts. Most importantly, I was allowed time and a half on all of my tests and end-of-semester exams. As I began to utilize these accommodations that I had been granted, my grades skyrocketed. Between the extra time and my modified study habits, I felt like a new student.

Before my diagnosis, I had trouble starting my homework and often procrastinated despite my desire to complete the assignments. Soon after being diagnosed, I was told that this was not uncommon behaviour for someone in my situation. Starting my homework caused me to become anxious, because I knew that it was going to take me longer than it should. I attempted to alleviate my stress by not beginning my assignments at all.

Once I became aware of my dyslexia, I was able to break this frustrating cycle. Now I knew that I was just not meant to complete my assignments in a

"normal" amount of time. I began to actually study more, because I no longer felt like I had to complete tasks based on the time it took other students to do something. Additionally, I found that studying late at night helped me due to its isolating effect. Without other students around, I didn't have to spend time worrying that other students were finishing faster.

For the first time in my high school years, I began to get A's, which only reinforced my newfound work ethic. I finally got the recognition and success I craved and knew I was capable of achieving.

II. Using clichés from the Annex make a synopsis of the text.

III. Read the text and define its main idea. Translate the text in writing.

THE BEST THINGS I DID FOR MY DYSLEXIC CHILD

My son has dyslexia. He is now 41 and a successful lawyer, but getting through school, and his academic frustrations, was a challenge we all learned from. Once my husband and I understood the problem that was plaguing our highly verbal, clearly intelligent son, I found it very important to respond with a solution for any issue he raised.

First was introducing a "tutor" who understood the problem and could tackle any skill deficit he had. Then, it was finding a school that was set up to use his talents, and not just focus on all the spelling errors, almost illegible handwriting, "careless errors" in math, and length of time it took him to turn out a written product.

In college, it was finding an expert in dyslexia who could explain the brain differences between dyslexics and nondyslexics, so that he could draw an appropriate boundary around some frustrations that still existed in school. It was listening and looking for solutions so that the academic frustrations did not overwhelm the creative life of his mind. It was always acknowledging that school was tough, but that he could do it.

IV. Use your English.

In pairs prepare a report on dyslexia treatment techniques. Add information from other sources.

UNIT 10. AUTISM AND SPEECH DISORDERS

I. Enrich your vocabulary.

acquire, *v.*	приобретать, усваивать, овладевать
babble, *v.*	бормотать, лепетать
catchphrase, *n.*	броская фраза
comprehension, *n.*	понимание
debunk, *v.*	опровергать
development, *n.*	развитие
extensive, *adj.*	обширный
hum, *v.*	напевать (с закрытым ртом)
mapping, *n.*	установление соответствия
repetitive, *adj.*	однообразный, повторяющийся

II. Match the words and their definitions. Consult the glossary if necessary

1) autism	a) uncontrollable and immediate repetition of words spoken by another person
2) catchphrase	b) informal interchange of thoughts, information, etc., by spoken words
3) commercial	c) to repeat or imitate without thought or understanding
4) conversation	d) the stock of words used by or known to a particular people or group of persons
5) echolalia	e) a paid advertisement or promotional announcement
6) monotonous	f) a pervasive developmental disorder of children, characterized by impaired communication, excessive rigidity, and emotional detachment
7) parrot	g) a customary or regular course of procedure
8) routine	h) a person trained in the use of physical / psychological methods for helping patients overcome physical / psychological problems
9) therapist	i) having very little inflection; limited to a narrow pitch range
10) vocabulary	j) a phrase, as a slogan, that comes to be widely and repeatedly used, often with little of the original meaning remaining

III. Match the words with the ones with the similar meanings. Consult the glossary if necessary.

1) adapt	a) complicated
2) common	b) start
3) completely	c) improper
4) complex	d) hinder
5) impede	e) adjust
6) inappropriate	f) oppose
7) initiate	g) original
8) resist	h) widespread
9) significant	i) totally
10)unique	j) considerable

IV. Match the words with the ones with the opposite meanings. Consult the glossary if necessary.

1) acquire	a) moderate
2) complex	b) subsequent
3) debunk	c) severe
4) fail	d) simple
5) impede	e) capable
6) intensive	f) support
7) mild	g) manage
8) previous	h) nonverbal
9) unable	i) facilitate
10)verbal	j) lose

READING

I. Read the text and pick out information a) of primary importance and b) new to you.

AUTISM

Autism is a developmental disorder that ranges from mild to severe. Rather than being defined as one particular disorder and set of symptoms, autism is referred to as autism spectrum disorder (ASD). Every child is unique with his own particular signs and symptoms.

Children with autism often react differently to being touched, resist changes to routines, and engage in repetitive activities. However, it bears repeating that children with autism spectrum disorder have various symptoms.

That said, you will likely notice that your child communicates differently than children without ASD.

Many parents of autistic children report delays in speech and language acquisition. You may also notice that your child does begin to acquire more language, but later "loses it". In previous years, it was commonly believed that a child who failed to significantly acquire language before the age of five had a dismally low chance of later language acquisition.

In 2009, a study debunked this idea. Scientists evaluated 167 children with ASD who failed to significantly acquire language before the age of five. They found that children who had intensive speech therapy for a significant period of time were able to develop speech. The results varied from children who acquired the use of single words to those who could use complex sentences. The bottom line is that if your child is autistic, find a speech-language pathologist (SLP) for him as soon as possible to begin speech therapy.

Children with autism display varied communication abilities. Some may be completely unable to speak, while others develop extensive vocabularies and can properly form sentences. Some might be able to parrot complex sentences and phrases and use them appropriately, but they might speak in an inexpressive, monotonous tone of voice. Some children may babble, hum, or make "throaty" sounds.

Other common characteristics include problems expressing basic needs and wants, as well as problems with reading comprehension. Autistic children may also inappropriately repeat words and phrases. This is called echolalia. For example, you may hear your child repeat the catchphrase of a popular TV commercial during a situation in which it makes no logical sense to repeat those particular words.

Children with ASD also frequently display difficulties with pragmatic language skills, or social skills as they apply to language. You may notice that your child has problems taking turns in a conversation, sticking to the topic of conversation, or initiating a new topic in a conversation. He may also fail to comprehend the meaning and use of nonverbal signals, stand too close to someone in a conversation, or have trouble with eye contact and facial expressions.

Pragmatic language skills also refer to the appropriate use of language. Your child might not adapt his communication to various situations and people. For example, when introduced to an infant, he might speak to the baby as though the latter were an adult. Working with an autistic child, a speech therapist will focus on helping the child understand the meaning and proper use of language, as well as acquire language and other skills, as needed.

Individuals with autism can have problems with any or all of these aspects involved in producing or understanding speech and language. In particular, for

example, because of their deficits in appreciating social situations, they may not feel any need to communicate and may very well not have any understanding of how other people might respond to a communicated message. Individuals with autism frequently appear to have deficits in paying attention to auditory information. They frequently have to be trained to pay attention to sounds. Even when they are paying attention, many individuals with autism seem to have difficulty in decoding what sounds mean and in matching them to words or thoughts. In some individuals with autism, this may be because they actually have difficulties with words and thoughts themselves. In others, it may be more because of a mapping problem. Individuals with autism frequently have difficulties with articulation, often as part of a broader problem of difficulty with oral-motor functions (movements of the lips and tongue and associated breath control). On the plus side, however, individuals with autism are frequently very good at paying attention and appreciating visual materials. Therefore, the visual route is often one way of getting access to their minds and giving them a way of expressing themselves, in turn.

In any given individual, which particular problems they have and which problems are hampering them most in any particular stage of development can only be determined by a careful assessment. Standardized testing can help to some extent, but it requires careful administration and interpretation, in part, because many standardized tests were not developed with a consideration of the kinds of deficits that individuals with autism may have. Therefore, both the administration and the interpretation of such tests may be problematic because of the unusual pattern of performance. To give just one example, because of their markedly restricted interests, individuals with autism may only rarely show any particular verbal ability and may never show the ability when placed in an unusual testing situation with an unfamiliar examiner. In such a case, the reports of parents and teachers who are more familiar with the child's capabilities can provide an important clue to what is possible for them and what is not.

In our research and educational program, we try to construct for each child an individualized map of their abilities and disabilities. Is the child aware that he or she is being spoken to? Do they ever try to communicate by any means? Are they echolalic (that is, do they repeat sounds or words spoken to them)? Echolalia, for example, is a clue that the child can perceive speech and articulate speech, so any problems that they may be having with speech and language must be beyond those levels.

Individuals with autism may have problems impeding their development of speech and language that are well outside the scope of traditional speech and language therapy (such as social deficits) or, at the very least, in the very frontiers of clinical knowledge as to appropriate treatment (developmental articulation disorders). Parents and teachers are confronted by a bewildering

range of options and apparent philosophies of treatment of these individuals. However, what really matters most is the empathy, energy, and flexibility of the particular therapist or therapists. In many cases, for example, therapists with seemingly very different philosophies will have surprisingly similar treatment plans because of the realities of the particular individual they deal with.

II. Match the beginning and the end of the sentences.

1) Children with ASD also frequently display difficulties	a) decoding what sounds mean and in matching them to words or thoughts.
2) Individuals with autism frequently have difficulties with articulation,	b) can provide an important clue to what is possible for them and what is not.
3) Many individuals with autism seem to have difficulty in	c) were not developed with a consideration of the kinds of deficits that individuals with autism may have.
4) Working with an autistic child, a speech therapist will focus on	d) with pragmatic language skills, or social skills as they apply to language.
5) Because of their markedly restricted interests, individuals with autism may only rarely show any particular verbal ability	e) helping the child understand the meaning and proper use of language, as well as acquire language and other skills, as needed.
6) The reports of parents and teachers who are more familiar with the child's capabilities	f) but they might speak in an inexpressive, monotonous tone of voice.
7) Standardized testing requires careful administration and interpretation, because many standardized tests	g) had a dismally low chance of later language acquisition.
8) The bottom line is that if your child is autistic,	h) often as part of a broader problem of difficulty with oral-motor functions.
9) Some children might be able to parrot complex sentences and phrases and use them appropriately,	i) and may never show the ability when placed in an unusual testing situation with an unfamiliar examiner.
10) It was commonly believed that a child who failed to acquire language before the age of five	j) find a speech-language pathologist for him as soon as possible to begin speech therapy.

III. Answer the questions.

1. What is autism?
2. Do children with autism have similar or different symptoms?
3. What did the 2009 study demonstrate?
4. What communication abilities do children with autism display?
5. What speech difficulties do people with autism have?
6. What does echolalia show?
7. Why does standardized testing require careful administration and interpretation?
8. Why do individuals with autism frequently have difficulties with articulation?
9. Why do individuals with autism rarely show any particular verbal ability?
10. Can a child who failed to significantly acquire language before the age of five do it at a later age?

IV. Summarize the main ideas of the text.

VOCABULARY FOCUS

I. Find in the text the English equivalents for the following words and phrases.

Расстройство аутистического спектра, слабовыраженный, задержка, невыразительный, ограниченный, звук, разговор, воспринимать, нарушение развития, понимать, комплекс симптомов, овладение, сложное предложение, лепетать, начинать, придерживаться темы, с учетом, осознавать, уместный, расшифровывать, навык, способ самовыражения, нарушение артикуляции, применение, затруднять.

II. Match the words to make word combinations.

1. communicated	a) ability
2. developmental	b) tests
3. eye	c) signals
4. facial	d) map
5. individualized	e) expression
6. nonverbal	f) turns
7. restricted	g) message
8. standardized	h) contact
9. take	i) interests
10. verbal	j) disorder

III. Insert the missing words.

1. We try to construct for each child an individualized map of their … and disabilities.
2. Scientists evaluated children with ASD who … to significantly acquire language before the age of five.
3. They frequently have to be trained to … attention to sounds.
4. Children with ASD frequently display difficulties with … language skills.
5. Other common characteristics include problems … basic needs and wants.
6. They may not feel any need to … .
7. Parents and teachers are confronted by a bewildering … of options.
8. Autistic children may also … repeat words and phrases.
9. Standardized testing … careful administration and interpretation.
10. Many individuals with autism seem to have difficulty in … what sounds mean.

IV. Insert the missing prepositions.

1. Autism is a developmental disorder that ranges … mild … severe.
2. Autism is referred … as autism spectrum disorder.
3. Children with ASD frequently display difficulties … social skills as they apply … language.
4. Standardized testing can help … some extent.
5. Pragmatic language skills refer … the appropriate use of language.
6. Children who had intensive speech therapy … a significant period … time were able to develop speech.
7. Individuals … autism are frequently very good … paying attention and appreciating visual materials.
8. Children … autism often react differently … being touched, resist changes … routines, and engage … repetitive activities.
9. They may not have any understanding … how other people might respond … a communicated message.
10. A speech therapist will focus … helping the child understand the meaning and proper use … language.

ADDITIONAL PRACTICE

I. Skim the text to find out the difference between language impairment, specific language impairment and autism spectrum disorder.

CONNECTIONS AND COEXISTENCE BETWEEN LI, SLI AND ASD

One of the most common worries in parents of young children concern their children's language and communication development and these are thus among the first aspects that parents as well as nurses at the Child Health Care centres focus on in developmental screening procedures. Language delays are fairly common although there is a huge variation in typical early language development, in particular in expressive language, i. e. language production. Language impairment (LI) might be an early sign of a severe developmental disorder such as an intellectual disability and/or an autism spectrum disorder, although commonly it is only a question about problems of language development. Specific language impairment (SLI) is used as a diagnosis for markedly impaired expressive language when nonverbal intelligence has been tested and found to be within the normal range and if there are no apparent sensory or neurological dysfunctions, SLI is not used if there is an autism-related disorder.

Researchers made a review of possible links between different language impairments and autism spectrum disorders and ended up with the recommendation to concentrate on those aspects of language impairment that predominate in each disorder rather than on those comparatively small areas of potential overlap. There are also several, but rare genetic disorders that cause both problems with language acquisition and autistic traits. Therefore, children with language problems should always be evaluated broadly.

II. Using clichés from the Annex make a synopsis of the text.

III. Read the text and define its main idea. Translate the text in writing.

SPEECH-LANGUAGE PATHOLOGY IN THE ASSESSMENT AND DIAGNOSIS WITHIN THE AUTISM SPECTRUM: INTRODUCTION

The main purpose of this chapter is to discuss assessment tools that can be used with children and adolescents of the autism spectrum and verify their effectiveness. It will be based on two studies that present the application and comparison of four different diagnostic tools. These four instruments are not

language-specific and therefore can be used with different groups of children that speak different languages. Certainly, cultural variations must be considered but the possibility of using tools that are internationally recognized may contribute to the efforts in improving the amount of information about diagnosis and treatment as proposed by the World Health Organization (WHO) in the World Report on Disabilities (2012).

The first study associates two different methods for identifying the functional communicative profile of children with autism, specifically regarding the initiative and interactivity of communication of individuals with autism.

The FCP-R is a protocol designed to the individual communication assessment developed by Kleiman (1994). It provides a simple and organized evaluation procedure based on age and acquired and/or developmental deficits. It can be used in four different ways: based on an interview with the therapists or the parents; direct assessment of the child/adolescent of observation of filmed samples. This tool assesses the individual communication abilities in the following areas: Sensory/Motor; Attentiveness; Behaviour; Receptive Language; Expressive Language; Pragmatic/Social; Speech; Voice; Oral; Fluency and Non-Oral Communication. To this study the areas of Behaviour; Attentiveness; Receptive Language; Expressive Language and Pragmatic/Social were selected.

The analysis of the functional communicative profile (FCP) adopts the criteria proposed by Fernandes (2004). It uses 15-minute filmed samples of patient-therapist interaction. In these situations the dyads play with toys regularly used in language-therapy sessions and that usually produced good communicative situations. Data are recorded, transcribed and analysed with a specific protocol.

IV. Use your English.

In pairs prepare a report on the behavioural peculiarities of people with ASD. Add information from other sources.

HOME READING

SPEECH

The human apparatus concerned with speech production and perception is complex and uses many important organs – the lungs, mouth, nose, ear controlling muscles and the brain. It is remarkable that this apparatus not only has developed to enable speech production, but also serves other purposes such as breathing or eating. It was discovered that various specific areas in the brain are regarded to be of primary importance for speech and language. These are called the speech centres – damage to any of these areas causes disruption to speech.

The vocal tract and vocal cord play a major role in speech production. The vocal tract consists of several organs and muscles which are regularly monitored and carefully controlled by the speech centres. The precise controlling is achieved by internal feedback in the brain. For example, auditory feedback helps us ensure that we are producing the correct speech sounds and that they are of the right intensity for the environment. Speech sounds are produced when air is exhaled from the lungs and causes either vibration of vocal cord or turbulence at some point of constriction in the vocal tract. The shape of the vocal tract influences the sound harmonics. The way in which the vocal cord is vibrated and the shape of the vocal tract is varied in order to produce a range of speech sounds which we are familiar with.

The vocal cord is situated in the larynx. The vocal cord is the source for speech production in humans. It generates two kinds of speech sounds. These are voiced and unvoiced. The vibration of vocal cords produces the sound called voicing and the unvoiced sound due to turbulence of flow of air at a constriction in the vocal tract. The frequency of vibration of the cord is determined by several factors; the tension exerted by the muscle, its mass and its length. These factors vary between sexes and according to age. The vibration of vocal cord produces harmonics – the amplitude of the harmonics decreases with increasing frequency.

The vocal tract is divided into two parts, first one is called the oral tract, which is highly mobile and consists of the tongue, pharynx, palate, lips, and jaw etc. The position of these organs is varied to produce different speech sounds, which we hear as the radiation from the lips or nostrils. The second one is the nasal tract, which is immobile but coupled with oral tract by changing the position of the velum. The lowest resonance frequency for a particular shape of the vocal tract is called the first formant, next – the second formant frequency and so on.

Normally speech is created with pulmonary pressure provided by the lungs that generates sound by phonation through the glottis in the larynx that then is modified by the vocal tract into different vowels and consonants. However, speech production can occur without the use of the lungs and glottis in alaryngeal speech by using the upper parts of the vocal tract. An example of such alaryngeal speech is Donald Duck talk.

The vocal production of speech may be associated with the production of hand gestures that act to enhance the comprehensibility of what is being said.

The development of speech production throughout an individual's life starts from an infant's first babble and is transformed into fully developed speech by the age of five. The first stage of speech doesn't occur until around age one (holophrastic phase). Between the ages of one and a half and two and a half an infant can produce short sentences (telegraphic phase). After the age of two and a half an infant develops systems of lemmas used in speech production. Around four or five a child's lemmas are largely increased, which enhances the child's production of correct speech and they can now produce speech like an adult. An adult now develops speech in four stages: activation of lexical concepts, select lemmas needed, morphologically and phonologically encode speech, and the word is phonetically encoded.

1. What does the human apparatus concerned with speech production and perception include?
2. Where is the vocal cord situated?
3. What do we call the speech centres?
4. Does the amplitude of the harmonics decrease or increase with increasing frequency?
5. At what age does an infant develop systems of lemmas used in speech production?
6. Which two parts is the vocal tract divided into?
7. What factors is the frequency of vibration of the cord determined by?
8. What does the shape of the vocal tract influence?
9. What is called the first formant?
10. How is speech normally created?

AUTISM SPECTRUM DISORDER (ASD)

Problems with social communication can, in children with language impairment, be either the main problem or a possible consequence of the weak and vulnerable language. To make the picture even more complex, communication problems are one of the core characteristics in autism spectrum

disorders. Although less frequently occurring, problems with structural language, often recognized in specific language impairment, SLI, can also be seen in children with ASD.

Cognitive, communication and language problems are commonly found to co-occur, although in different combinations and levels of severity, which reflects their complex and heterogeneous nature. Family studies that found a relation between genetic vulnerability to autism and language impairment revived the interest to more thoroughly study aspects of language in autism. Diagnoses based on mainly communication and language problems are therefore difficult to discriminate and differentiate between.

Many trials have been performed with psychometric as well as language tests. When the concept of pragmatic language impairment was introduced, it became particularly tricky to delineate this kind of language impairment from autism spectrum disorder, in particular in individuals with average or high intellectual functioning. Furthermore, these problems not seldom change picture over time. However, it is important to try to discriminate between different symptoms since they might require different types of intervention. The parents may have worries and questions concerning long time prognosis for their child. When there is a severe developmental problem, as an autism spectrum disorder with intellectual disability, it is necessary to plan very well in advance for the child's transition into adulthood and adult services. The complete puzzle is laid when child and youth psychiatrists, pediatricians, psychologists and speech and language therapists collaborate with adult psychiatrists. Adult patients with developmental problems often showed the ESSENCE deviations in childhood. Persistent language problems have been shown in long-term follow-ups of children with developmental language disorders in later adult life and found severe literacy impairments as well as phonological processing problems. Furthermore, they reported unemployment and social problems, i. e. very few close friends.

The prognosis, or the functioning in adulthood, of course, depends not only on the degree of communication difficulties, but also on several other factors. Foremost is the individual's general cognitive functioning, or IQ. An intellectual disability, at least in the range of moderate or severe, is generally accompanied by severe language and communication problems, especially in the many cases where there is also an autism spectrum disorder. In these cases, the prognosis is poor, and the individual will need constant support, supervision and augmentative communication also in adult life. The comprehension problems, including the strong tendency to attend to details rather than, and instead of "seeing the whole picture" is supposed to be at the core of the communication difficulties. The same can be said about individuals with autism spectrum disorders and intellectual abilities within the normal range. Many authors have

described the so-called weak central coherence as an autism-specific cognitive style, which causes dysfunction and impairment in most situations. This is especially the case in social situations, where the quick and intuitive grasping of the whole situation and thus the meaning in the ongoing communication is essential. Even in cases with good over-all cognitive skills, adults with autism spectrum disorders find it difficult to find work and to keep up relationships since their pragmatic communication skills are not on par with their intellectual level. It can be speculated that the communication difficulties contribute to the vulnerability to psychiatric disorder, which is often seen in these cases. Even when an adult with autism spectrum disorder seeks help in adult psychiatry, communication problems in association with receptive language problems may be an obstacle to diagnosis and treatment.

1. What does ASD stand for?
2. What is one of the core characteristics in autism spectrum disorders?
3. What does SLI stand for?
4. What did family studies find?
5. What reflects the complex and heterogeneous nature of cognitive, communication and language problems?
6. What does the IQ indicate?
7. What does the prognosis, or the functioning in adulthood, depend on?
8. What diagnoses are difficult to discriminate and differentiate between?
9. What problem is supposed to be at the core of the communication difficulties?
10. Why do adults with autism spectrum disorders find it difficult to find work and keep up relationships even in cases with good over-all cognitive skills?

ANNA – A CHILD WITH EARLY IDENTIFIED LANGUAGE PROBLEMS

Anna was referred to a speech and language therapist after screening at the Child Health Care centre at the age of four. Her parents had elicited concern and asked for a referral to a speech and language specialist. Her preschool teachers had pointed out that Anna had difficulties when asked to speak about things that had happened at home, but also when referring to activities at preschool, telling and retelling stories. She almost never asked questions and actually did not manage to participate actively in simple everyday conversations. The CHC nurse had been a little sceptic about her having a developmental

problem since Anna had for a long time demonstrated fully intelligible expressive language skills with almost perfect pronunciation. However, the nurse pointed out that she had experienced some difficulties in chatting with Anna, whose answers and comments were found to be quite odd and irrelevant. This was not something Anna herself seemed to worry about; she continued to speak even if others were not following and responding properly.

At preschool it was pointed out that it was difficult to understand what Anna wanted although her pronunciation was pretty clear. It was also difficult to calm her when she was upset. Communication with Anna was tricky and there was a feeling of frustration from both parts. Misunderstandings and conflicts were commonly occurring during play. However, the nurse at the CHC-centre did not seem to find the situation problematic, she underlined that Anna had had a fully intelligible spoken language since early age. Eventually the nurse also noticed that it was a little difficult to get answers from Anna to simple questions and that she sometimes gave a bit odd answers to trivial, simple questions.

When Anna was about to start preschool classes, make new friends and have a new preschool teacher, her mother was worried. She pictured Anna ending up excluded from the peer group, short of play mates and a lonely girl. She was also afraid that new playmates would make fun of her, tease and cheat her. The pre-school year proved to be a challenge for Anna herself. Almost every day there were misunderstandings and conflicts. Anna was not aware of her own role in the communication problems, as is usually the case with pragmatic problems. In addition, neither preschool teachers nor parents or peers could point out or articulate what the problem was. There were often conflicts, chaos and confusion. However, it became a little easier as the months went by and everyone got to know each other. This was particularly true in structured and teacher-led activities and thematic work where the topic was well defined and known.

The first years of elementary school went quite well. The teacher got to know Anna and more or less intuitively she adapted the teaching to Anna’s needs. For example, she repeated instructions, she explained with other and easier words and simplified grammar and asked for feed-back to make certain that Anna had understood. A special needs teacher gave Anna individual teaching and introduced her in a social communication-training group. In this group the communication itself was highlighted in a metacognitive way. This means that the participants of the group explicitly talked about what was said, how different conversational participants interpreted it and what the speaker intended to say. Altogether this was very helpful for Anna, who became more aware of what was going on in conversations. She also got some help in narrative skill by visualization of story grammar, which scaffolds the construction of meaning and chronology in a story. Sometimes, Anna’s

associations went too far away for the listener to be able to follow, i .e. topic drifts and abrupt topic shifts. Although Anna had learnt to use some communicative strategies, e. g. repetitions and reformulations, there was often a risk of misunderstanding. The time outside the classroom was much more of a challenge. All peer conversations were rapid and there were no adults participating and scaffolding.

The following years at school turned out to be an even bigger challenge for Anna – as well as for her teachers and parents who suffered seeing Anna withdrawing from active participations in social communication, predominantly at school but also after school at home. Anna became introvert and dropped her assertiveness and spontaneity and spent less time with peers. She completely avoided situations with demands on social communication, but since she had no expressive language difficulties it was not obvious for anybody that she had hidden language vulnerability with at least former language comprehension problems. Instead the teachers perceived her behaviour as a teenage problem and as a sign of lack of motivation for school.

What can we learn from this story? First, developmental language problems do not necessarily involve expressive language problems. Therefore, they might be subtler and more difficult for the environment to discover although they have a bad prognosis and are challenging for the child to cope with. Such problems have been referred to as pragmatic language impairment, but has been renamed as social communication disorder in the updated diagnostic manual DSM-5. The diagnosis of social communication disorder is hereby more precisely defined and seen as a distinct language problem rather than a variant of autism spectrum disorder. The symptoms of earlier diagnosed language impairment commonly persist at the age of 11, although they are no longer specific language problems, but problems of general learning skill and/or social communication. With increasing age, the demands on language skills both in academic literacy and in social communication are accentuated. As a teenager and a young adult, one is expected to make new acquaintances, to listen, understand and respond to what people say, both in more spontaneous conversations and while reading and writing academic texts. The more one is engaged into broader perspectives and new subjects, the more one’s world is widened and the more concepts and language one needs to develop.

The single most important factor for school success is a wide and well-organized vocabulary, a skill that is continuously challenged and stimulated in all contexts during a person’s life. Researchers underline the importance of teaching children word learning principles explicitly, stressing associations and morphologic as well as semantic relationships between known and new words with the focus on meaningfulness and usability. The better a person’s vocabulary is organized and structured, the faster and easier it is to retrieve

words when narrating stories. This is an important argument for the need of interdisciplinary collaboration in a long-time perspective. One question is if Anna's language problems could have been compensated for at an early age and thereby prevented or proactively been scaffolded? A predictive symptom was her early reluctance to tell and retell stories. Narrative skill has been found to predict the later language development. Story telling is an important activity that is continuously performed and thereby stimulated and challenged in preschool activities, which makes is possible to scaffold narrative skill from early childhood.

Another symptom regards language comprehension focusing the ability to engage in social communication, i. e. pragmatic skill. Can such problems be identified and compensated for at an early age? There is not one straightforward answer on this question. At an early age there is a huge tolerance for breaking social rules and expectations. Explicit comments on social behaviour e. g. politeness or the absence of it, are commonly given by parents and other adults. Anna's language problems affecting the functional aspects of language rather than the structural ones, made social interactions based on verbal conversation difficult. This in turn affected her status as a playmate during childhood and she often preferred playing with adults. As she grew older Anna became less and less assertive and she had few close friends of her age. As a child becomes older both these parameters are changed: the tolerance for differences decreases – at least in similar age groups – and explicit comments on behaviour are not expected. On the other hand, being practised in a variety of contexts and social meetings pragmatic skill is developed in an emergent way. One way of stimulating pragmatics is therefore to involve and engage the child during social communication with different people, possibly representing different roles in play. Such imaginative play stimulates the ability to take different perspectives from different points of view, which means a kind of decontextualisation and mindreading, often referred to as theory of mind.

1. When was Anna referred to a speech and language therapist?
2. What did her preschool teachers point out?
3. Why was Anna's mother worried when she was about to start preschool classes?
4. Why did the pre-school year prove to be a challenge for Anna?
5. At what age do the symptoms of earlier diagnosed language impairment commonly persist?
6. Is social communication disorder a distinct language problem or a variant of autism spectrum disorder?
7. What is the most important factor for school success?

8. Did Anna's language problems affect the functional or the structural aspects of language?

9. How do speech pathologists stimulate pragmatics?

10. Why did Anna's first years of elementary school go quite well?

ANDERS — A YOUNG ADULT DIAGNOSED WITH AUTISM SPECTRUM DISORDER

Anders, 26 years old, was referred to psychiatry for depression after having tried sixteen different training jobs without success. He was living alone in his own apartment, which his mother helped him clean every week. He had a friend, but kept in touch by e-mail and had not met the friend for 4 years. He had never had a girlfriend, and, when asked, said "I don't want a girlfriend – it would be too time-consuming since I would have to be with her in my leisure time". He had no idea why the jobs he had tried had been failures, but he remembered one of them going well for several months, whereafter he was asked to leave. He described that in the job that went well, he had a written detailed description of his assignments which he had followed precisely.

However, after three months his supervisor took away the instruction, assuming that Anders now knew what he was supposed to do. But since there was no description any more, Anders did nothing. His supervisors in this and other jobs were contacted, and they described why Anders had been asked to leave. In the workplaces he had behaved oddly in many ways – not greeting his colleagues, taking the biggest pieces of cake first in the coffee room but without socializing, intruding on others' workspace and many other things. Consistently were described misunderstandings and misinterpretations – Anders had a tendency to interpret literally and to say things that were considered rude or offensive.

Anders and his parents described that he had been quite clumsy as a small child, but the parents did not worry since he started walking at 15 months of age. He was quite late to speak, but soon developed a large vocabulary that impressed the parents. He preferred to play by himself or with his 3 years younger sister, and had no special friends at school. He disliked surprises, and became upset when routines were changed, and the family had adapted to this by e. g. never going on trips overnight until Anders was 15. The teachers had expressed some worry since Anders was always by himself, but since he did not seem unhappy, and since the father thought of himself as a "happy loner", nothing was done. Anders got fairly good grades, especially in science subjects but had relatively more difficulties in subjects where more of a social or

coherent understanding was required. He was never bullied, and he liked going to school.

However, after finishing high school he did not know what to do. His most intense interest was in bird-watching, especially night-active birds and he had collected large amounts of facts and observations concerning these birds. The jobs that Anders was assigned were mostly low-skilled work in offices, food shops or stockrooms. The assignments were below his intellectual skills, but he failed since he did not have any intuitive understanding of the aims, or the bigger picture of the workplace, in addition to irritating his co-workers by being socially clumsy. The psychiatrist and a psychologist, after doing a cognitive assessment of Anders and interviewing his parents, diagnosed an autism spectrum disorder with IQ within the normal range. His depression was considered to depend on his lack of meaningful occupation, and he was referred to a job centre for adults with developmental disorders and normal IQ. In the job centre Anders was assigned a special job coach with experience in autism spectrum disorders, and at his last visit to the psychiatrist seemed hopeful regarding his future chances to get a part time job as an assistant in a research lab, and perhaps later study science at the university in a program for students with autism. Anders was also referred to the habilitation centre, where he has regular visits with a social worker.

Looking backward, Anders may, or may not have been helped by an earlier recognition of his problems. After all, he managed to go through school with good grades and without emotional disturbances. His family and classmates considered him normal, even if a bit odd and seclusive, and he was never bullied. Thus, Anders did not need any special help until after school, and it can be speculated that his self-esteem and emotional well-being might have been disturbed by earlier interventions. However, it seems unnecessary and unhelpful that Anders had to wait for 8 years of repeated failures in jobs until his problems were recognized and accordingly managed.

1. When and why was Anders referred to psychiatry?
2. Was Anders bullied at school?
3. Did Anders have any friends?
4. What kind of assistance did Anders get at the job centre?
5. Did Anders like surprises?
6. What jobs was Anders assigned after school?
7. What was his most intense interest?
8. At what age did Anders start walking?
9. What grades did Andres get in science and other disciplines?
10. Why did Andres fail his job assignments?

LESSONS FROM THE FRONT LINES: HELPING A STUDENT WITH AUTISM SOAR (Part I)

Speech-language pathologist Carol Amato vividly recalls hearing this plea from a teacher the first time she walked the halls of Paterson Public School № 2.

Another speech-language pathologist and friend, Robin Kanis, asked her to visit for a day. Kanis hoped Amato would consider coming to work at the autistic program at the inner-city school in Paterson, New Jersey.

Amato was immediately impressed by the respect the teachers showed her colleague. Too often, she knew, speech-language pathologists felt misunderstood or isolated in the schools where they worked. But here, the teachers clearly valued her profession – and wanted her help.

And so, four and a half years ago, Amato joined the staff at School № 2. Today she is part of a four-person speech-language pathology team that works with nearly 60 children with autism and over 40 children with communication and language disabilities. As evidence of the school's commitment to the programme, which was the first of its kind in the school district, Amato and three other speech-language pathologists have individual offices in the school's speech suite – the kind of professional setting many school-based speech-language pathologists must forgo. The programme also enjoys strong support from the school's principal, Felisa Van Liew, herself a former speech-language pathologist.

Above all, says Amato, the work is rewarding – and inspiring. One of the children who has most inspired her is 10-year-old Darian Dominguez.

Darian started the autistic programme at Paterson Public School № 2 when he was three years old, three years before Amato joined the staff. The programme works with students all along the continuum of autism spectrum disorders, from those with very severe and limiting forms to those who are high functioning, with forms such as Asperger's syndrome – that's where Darian falls on the scale.

When Darian entered the program, his autism had the upper hand. At the age of three, Darian was highly resistant to learning and did not talk. He was aggressive toward his peers and would communicate by screaming and throwing severe tantrums. Based on these behaviours, the school provided Darian with individualized instruction.

Darian made significant progress during his first year at Paterson. Despite his many challenges, he was learning and retaining information, and before long, he was able to take part in a small group.

When Amato started working with him, a six-year-old Darian still had major problems focusing his attention on one thing and displayed very limited

social communication skills. Despite his obvious intelligence, Amato knew it was unlikely he could be placed in an inclusive classroom.

Fast-forward to Darian in the fourth grade: This past year, Darian was able to move out of a full-time placement in a severe language-learning disabilities class and be part of the general fourth-grade class, where he studied math, science, music, art, physical education, and health. He's performing at grade level in math and science, and is making good academic progress.

Amato is quick to stress that collaboration has been key to Darian's progress. "His success is an example of the great things that can happen when an entire school community works together in active support of student achievement," Amato says. "Not only do we have high expectations for our students, but we have high expectations for each other."

Amato and her fellow speech-language pathologists collaborate on all their cases, drawing on each other's education and experience to find the best methods for each child in the program. In Darian's case, Amato has relied heavily on Celeste Mancinelli, a speech-language pathologist and friend she recruited to work at School № 2 who has expertise in dealing with children with Asperger's syndrome. Another indispensable resource is Barbara Brooks, the learning consultant who has been Darian's service coordinator for more than six years.

Darian's parents, who are first-generation immigrants from the Dominican Republic, are also essential to his impressive progress. Their commitment is reflected in a decision they made on their own when Darian was diagnosed with autism: they would speak to him only in English. They knew he would face huge challenges when it came to acquiring language skills, and they felt it would be too difficult for him to learn both English and Spanish.

"Carlos and Leonor Dominguez are loving, supportive parents who have always advocated on their son's behalf. They've done whatever was necessary to ensure his success," Amato says. "Kids can fly when they have their parents behind them. Darian is a perfect example of this."

With limited resources and so many children needing help, speech-language pathologists are often under pressure to limit the number of parent meetings they attend. However, Amato insists on being at every meeting with parents. "The information I learn is invaluable," she says.

At one point last year, Darian seemed to be regressing. Amato and her colleagues weren't sure why. At his next parent meeting, Darian's mom told Amato that he had been very upset when he came home one day to discover that his bedroom had been rearranged. Darian's disorder often causes him to need things around him to be arranged in a particular way. For instance, when he was younger, he sometimes didn't want to get in bed at night because he didn't want to mess up the covers.

"While this might be a small thing to other kids, it really traumatized Darian and affected his performance for several weeks," Amato explains. "Once I knew what triggered the problem, I was able to work with his parents and teachers to get him back on track."

1. How did speech-language pathologists often feel in the schools where they worked?
2. How many people are there in Amato's speech-language pathology team?
3. When did Darian start the autistic program at Paterson Public School № 2?
4. What kind of autism disorder did Darian have?
5. What behaviour did Darian demonstrate at the age of three?
6. What progress did Darian make during his first year at Paterson?
7. What major problems did six-year-old Darian have?
8. What changed when Darian was in the fourth grade?
9. What role did Darian's parents play in his progress?
10. Why do speech-language pathologists have to limit the number of parent meetings they attend?

LESSONS FROM THE FRONT LINES: HELPING A STUDENT WITH AUTISM SOAR (Part II)

In December 2005, Amato nominated Darian for the New Jersey Speech-Language-Hearing Association's 2006 Distinguished Achievement Award. When Darian won and was invited to Atlantic City to accept the award, Amato spearheaded a fundraiser so that his extended family could attend along with his parents.

When Darian received his award, he told Amato he was proud and happy, but that he wasn't quite sure what a "Distinguished Achievement Award" meant. Amato broke it down word by word and then explained what would happen at the awards ceremony.

Darian looked at her and said, "So, Mrs. Amato, you mean that I am a special stand-out success because of my improvement in my communication and I'm getting a prize for this, but it's not a real prize, it's an honour, oh – and a plaque. And there will be all kinds of communication experts there – therapists, speech teachers, speech specialists, language specialists, «hearatologists», audiologists, and «speakatologists»."

At the dinner, Darian gave a speech in front of more than 100 people, including his parents, grandparents, and cousins. His teachers and teaching assistants helped him practise his speech, which had been typed out with special

symbols reminding Darian when to look at the audience and when to smile – making this special night yet another teachable moment in his ongoing acquisition of communication skills.

Darian also had a special surprise for his mom and dad. While Darian hasn't yet tackled learning Spanish, the staff helped him practise reading a special "thank you" in his parents' native tongue:

"Mommy and Daddy, you have devoted your lives to helping me succeed in school and in life. Thank you for teaching me how to behave, helping me with my school work, and encouraging me to always try harder. You are my most important teachers, and I love you."

When he came back to school from the awards ceremony, Darian wanted to celebrate his achievement with classmates from both his special education and general education classes. So Amato and his teachers arranged a pizza party.

In order to prepare the students to interact with each other, Amato presented a social skills lesson for the fourth-graders, talking about things like body language, how to be friendly, and what to expect from peers who have trouble with social communication. She also explained that the most important thing was to make Darian and the other students visiting the class feel included.

At the party, Amato put on some music that her 12-year-old recommended – the sound track from High School Musical, a popular Disney TV show. She was concerned that some of the special-needs students would feel awkward participating, but the students rose to the occasion.

"One by one, with encouragement from the general education students, everyone was dancing and singing," Amato says. "The most touching moment was when all the students danced around Darian, shouting his name and cheering for him. Darian's mom and I just stood there hugging and crying."

Fortunately, Amato has been there to help Darian soar. "What I've done is to explain his strengths and needs every step of the way," Amato says. "I helped his teachers and classmates and parents understand Darian, so that we could all work together to help him learn."

The next big step for Darian will be making the intellectual connection between the concrete and the abstract. This is the stage in the developmental process that proves difficult for many children, but his autism turns it into a daunting challenge. "It will take a tremendous amount of time, but I have some ideas about how we can help him make the leap," Amato says.

Amato also worries that Darian may have a harder time fitting in as he gets older, so she's intent on focusing even more energy on peer relationships. She wants to give Darian the skills and understanding he will need to navigate the world beyond School № 2.

Even after 30 years in her profession, Amato still finds herself learning every day as she responds to each child's unique needs. She readily admits she

is sometimes outside her comfort zone. “It can be overwhelming, and it’s a lot of work, but I find it wonderfully rewarding,” she says.

According to Amato, the greatest lesson she has learned in her five years at School № 2 is the importance of involving herself in the classroom. Traditionally, speech-language pathologists have been trained to work in the “pull-out” model – taking students out of the classroom for one-on-one or group sessions. Amato knows that it’s hard to change this model, but she thinks it’s critical.

“Many people call it «push-in services» – but I really dislike what that implies. I prefer the term integrated services, or in-class services,” Amato says. “With a student like Darian, understanding his classroom setting is essential. I can assess the expectations he has to fulfil and the skills he needs to be a group learner, and I can pull in other specialists when I see a learning obstacle where they can make a difference.”

Amato also looks at the curriculum and state standards so that she can set goals for Darian that will help him succeed. Most important, she works in partnership with the teachers at School № 2, who continue to be as welcoming as they were when she made that first visit to the school, nearly five years ago.

“The most important factor is that everyone here respects and values what I do,” Amato says. “I work in a fabulous environment. That’s what keeps me here.”

That, and children like Darian.

1. What award did Amato nominate Darian for in December 2005?
2. What cues did the print-out of Darian’s speech have?
3. What special surprise did Darian prepare for his parents?
4. How did Darian celebrate his achievement?
5. What did Amato do to prepare the students to interact with each other?
6. Why is Amato intent on focusing even more energy on Darian’s peer relationships?
7. What makes Amato feel outside her comfort zone?
8. What was the greatest lesson Amato learned in her five years at School № 2?
9. Why is it necessary to understand the student’s classroom setting?
10. What does Amato use to set goals for Darian?

A BIG VOICE FOR A LITTLE GIRL

It’s well documented that most adults rank public speaking as their number-one fear. Yet when third-grader Leslie Tran took the stage in March 2006 to accept the California Speech-Language-Hearing Association’s (CASHA) 2005 Child Consumer of the Year Award, her confidence and her

voice came through loud and clear. How Leslie got to that award ceremony is the story of a life-changing blend of proactive speech-language pathology, visionary education, family support and extraordinary personal determination-with no room for fear.

"Determined" is the first word medical professionals and teachers use to describe Leslie Tran. "Truly amazing" runs a close second. A premature infant, she spent her first six months of life in neonatal intensive care, overcoming several life-threatening conditions. One disorder in particular presented the biggest threat to her ongoing health and quality of life: stenosis of the airway.

In this condition, a webbing forms across the airway, partially blocking it. Some people are left with an airway clear enough to allow them to breathe and speak. In Leslie's case, her airway had been reduced to the diameter of a pinhole, making every breath a struggle. In her first three years, she had more than five surgeries to correct the problem as much as possible – but breathing and speech were still major challenges.

Despite her medical difficulties, Leslie grew and thrived. At three, she started school at Byron E. Thompson Elementary in El Monte, California, which has a unique special needs program for children with severe health conditions and orthopedic disabilities. Thompson's open-learning environment and individualized education programs (IEPs) offer curricula and techniques tailored to each student's physical and cognitive needs. Students there learn to use adaptive communication technology in their daily lives as other students might learn to use a pen and paper.

Supporting this program are dedicated teachers skilled at working with special-needs children. And at its foundation: the school's encouraging atmosphere. It's particularly telling that Thompson's mascot is the eagle-reminding students that no goal is too high to reach, and that they can soar to greatness.

At Thompson, Leslie met her speech-language pathologist, Terry Kappe. Kappe says that within moments of meeting Leslie, she saw that the girl's cognitive skills were very advanced – and that she was eager and determined to communicate.

As a toddler, Leslie had communicated with her parents using sign language. With Kappe, she began to learn cognitive and vocalization skills. Kappe uses interactive games such as *Go Fish* and *Name Playing* to provide a fun and engaging environment for students to practise speaking and answering questions.

As the lessons progressed, Leslie quickly became ready to learn to use adaptive technology. Kappe introduced her to a wireless adaptive communication system called a *DynaMyte*, which became Leslie's "voice" for the outside world within a matter of weeks. According to Kappe, in an academic

setting other than Thompson and with another student, such progress would have taken more than a year.

This voice augmentation technology, with its dynamic display and ability to record thousands of messages, proved to be the right solution for Leslie. Soon the young student was communicating with her teachers and classmates at school and family members at home. Before long, she advanced beyond using icons to spelling out words.

According to the professionals who worked with Leslie, adaptive communication technology has been integral to her educational and emotional development.

"When I met this remarkable girl, two years ago, she was a little shy and wasn't sure what to say to me at first," says Joshua Witt, Leslie's *DynaVox* Field Trainer. "However, once encouraged by her speech-language pathologist, she had plenty to say."

Leslie learned how to program her adaptive communication device for specific lesson plans, entering word lists and saving them in folders to use later in upcoming discussions. One of her many classroom assignments was to write about her weekend activities-where she went, what she did and who she met. Leslie used her device to compose her assignments, download them onto a computer and print them out for her teachers to read and grade. Today, her records of more than two years of weekends stand as a memoir of her growth and change.

Candace Murakami, Leslie's special education teacher at Thompson, says of Leslie's compositions and communication: "She is creative in her storytelling and has a sense of humour that is absolutely delightful!"

Academically, Leslie has surpassed her peers with her intelligence and dedication, says Kappe. She has earned a Student of the Month award, happily asks for more homework and "is becoming quite the conversationalist."

Leslie confidently uses adaptive technology to communicate outside of the classroom, too. She can adjust the device so that she can be heard in different situations ranging from one-on-one conversations to acting in school plays.

But perhaps most impressively, Leslie takes the initiative in helping her peers, particularly those less physically capable than herself. She uses the skills learned from troubleshooting problems on her own adaptive communication device to help program those of her classmates.

Terry Kappe remembers, "In first grade, there was one little girl who was just beginning to use her *DynaMyte* to communicate with her classmates. She lost the page she was working on and when her teacher couldn't figure out how to reset her page, she went and got Leslie from another classroom. Without any hesitation, Leslie started to train her to use it, and then even showed the teacher how to program the system."

Her technical skills – and sheer determination to communicate – showed in full force when Marianne Stone Smith, CSHA District Director-Elect, visited the school. The battery in Leslie's *DynaMyte* device had died. One might assume that the meeting would have to be cancelled.

But instead, Kappe saw this as a prime opportunity to show how Leslie could rise to the occasion and gave her a quick lesson on another type of adaptive communication device. Leslie caught on immediately and soon was "chatting" and happily answering questions. By the time the meeting was over, Marianne Stone Smith was so impressed with Leslie's aptitude and attitude, she knew she had found the perfect candidate for the Child Consumer Award.

1. How do medical professionals and teachers describe Leslie Tran?
2. What was Leslie's main disorder?
3. What does stenosis of the airway mean?
4. When did Leslie start school?
5. What made Byron E. Thompson Elementary School different from other schools?
6. How did Leslie communicate with her parents as a toddler?
7. Why did Leslie surpass her peers academically?
8. How did Leslie help her peers?
9. What happened when the battery in Leslie's *DynaMyte* device died?
10. What made Leslie the perfect candidate for the Child Consumer Award?

A VOICE OF HOPE: THE MELISA CANO'S STORY (Part I)

One of the biggest challenges speech-language pathologist Melisa Cano says her students face has nothing to do with breath control, pitch or articulation. It's "being teased, made fun of and having people thinking they're not intelligent."

To counteract this, Melisa visits classrooms and student groups to talk about her profession. More often than not, the students will reveal that they know people in their own lives with speech difficulties.

"My uncle stutters."

"Do you love him?"

"Yeah."

"Then why would you make fun of him?"

"It's getting kids to understand," Melisa explains.

But it's more than technical knowledge and encouraging words that Melisa brings to these discussions. She offers her own extraordinary story of recovery, perseverance and accomplishment.

Rachel Torres, manager of speech-language pathology and audiology services at San Joaquin General Hospital, reflects upon the remarkable individual she saw as both patient and student.

"I recall being slightly concerned about Melisa's persistent hypernasal speech and whether patients and their families would take issue," says Torres. "The opposite occurred. Patients and their families were so inspired by Melisa's recovery and fortitude that it provided them with renewed hope."

Before one fateful morning in November 1996, Melisa Cano had been the mother of a 3-year-old daughter, Brihana, and a student at Madera Junior College considering a career in medicine. While driving on Highway 88 near Jackson, California, she attempted to slow down as a car trying to pass entered her lane. Her brakes locked, sending the car spinning into oncoming traffic. The impact instantly killed her daughter and left Melisa in a coma.

Melisa's sister, Cathleen Villarreal, remembers receiving the phone call from her mother, and receiving gentle words of caution from hospital doctors to prepare for the worst and to "make arrangements."

"But suddenly, on the third day, Melisa opened her eyes," says Cathleen. "Her doctors predicted a three- to five-month stay at the hospital, but once again, Melisa proved them wrong! She walked out of that hospital a short six weeks later."

The accident left Melisa experiencing double vision with no lateral gaze – this required retinal surgery to correct. She continued to have severe dysphagia (difficulty swallowing), which required her to have a feeding tube in her stomach, and struggled with profound dysarthria (weakness of the mouth, throat and chest muscles) and cognitive linguistic deficits.

"Physical therapy, speech therapy, occupational therapy, surgeries and psychological evaluations became a way of life," Cathleen recalls.

For example, Melisa engaged in rigorous homework to recover her immediate, short-term and long-term memory. Friends and family helped her with pictures and stories that served as memory triggers.

"A lot of my childhood is gone. And I'm horrible at names." She used to be really good at remembering names, she says.

She also started numerous exercises to regain the seemingly simple functions of breath control and swallowing, such as holding her breath, opening and closing her vocal cords.

"It's so weird. Your mind says «I know how to do this,» but you lose the triggers. I have no gag reflex. I had to learn how to breathe while eating. It's the

little things you think you'll get back. I always thought I'd regain how to speak and how to swallow."

This involved work with a "really uncomfortable to wear" speech bulb, or obturator, and rigorous voice therapy with her professor and on her own. Some of the challenge was physical in nature, such as soft palate dysfunction that had resulted in severe nasality in her speech.

In the fall of 1997, less than a year after the accident, Melisa enrolled in courses at Madera Junior College.

According to Cathleen, "Her psychiatrist issued a 26-page report in which he discouraged this particular course of action. «She may be setting the bar too high,» he informed us. Once again Melisa ignored the naysayers and carried on! She spent 50-plus hours a week studying, overcoming the frustrations and memory delays caused by the accident. She would spend countless hours reviewing materials until she got it."

"I didn't really know my limitations when I went back," Melisa admits. "Cognitively, I had to adapt to being not as smart as I was.

Before the accident, I could go into a classroom and just highlight notes. I never had to study. I had a crazy memory."

Melisa's still-formidable intelligence and memory skill helped her adapt after the accident.

"I began to take copious notes" writing in four different inks with a multi-ink pen: topics in black, definitions in red, examples in green, everything else in blue.

1. What is one of the biggest challenges Melisa's students face?
2. Why does Melisa visit classrooms and student groups?
3. What speech disorder did Melisa have?
4. What happened to Melisa in November 1996?
5. What health problems did Melisa get after the accident?
6. How long did Melisa stay in hospital?
7. What therapies did Melisa get after hospital?
8. When did Melisa enrol in courses at Madera Junior College?
9. What helped Melisa adapt after the accident?
10. What technique did Melisa employ to memorize her notes?

A VOICE OF HOPE: THE MELISA CANO STORY (Part II)

In 1999, Melisa Cano enrolled in the speech-language pathology graduate program at the University of the Pacific.

As she pursued her graduate studies, she realized it was time to focus on her speech.

"When you're in hospital, you're caught up in learning day-to-day functions. I was really unintelligible going back to school.

I would only speak to people who knew me or one-on-one."

"By the time I was going into the master's program, I was 100 percent intelligible but had a nasal quality, similar to someone who's hearing impaired."

She would constantly monitor the quality of her voice, practising sentences for rhythm and stops, controlling nasal sounds and constantly gauging characteristics such as cloudy vs. pristine.

"Your voice has a certain tone," Melisa explains. "My habitual pitch level, or fundamental frequency, was low for a female of my age. In sentences, I would speak at 187 to 190 cycles per second. I was speaking in my chest, not projecting my voice."

Pivotal to refining the quality of her voice was an experimental treatment involving her palate, treatment to which she brought a unique contribution as both patient and student.

Melisa's speech-language pathologist introduced her to Dr. Granger Wong, a plastic surgeon from the University of California, Davis.

The conversation soon turned to a material he was using to treat cleft palates – and then came a sudden idea inspired by the hypernasality of Melisa's speech, which resulted from her soft palate inadequately closing off the nose from the mouth, letting air and sound escape through the nose during speech.

"I bet if I injected this into the back of your throat", Dr. Wong speculated.

And that's exactly what he did – in a pioneering implementation of Dr. Wong's posterior pharyngeal (throat) wall implants, guided by Melisa's knowledge as a student and patient.

Rachel Torres remembers one of the experimental treatments. "The radiologist, department manager and I looked on as Dr. Wong stuck what looked like a foot-long needle into Melisa's pharyngeal wall, injecting it with implant material. The department manager and I nearly passed out. I thought, what an amazing individual to be so brave and determined to try this new procedure."

The treatment was an uncommon example of the patient being able to offer in-depth technical guidance on her own treatment. Because Melisa had no sensation in the back of her throat, she could be alert during the procedure and direct Dr. Wong's manoeuvring of the six-inch needle.

"He would inject it. I would say a sentence," says Melisa. "You could immediately tell the difference. Being able to feel the contact, then my being able to guide what was going on – it was the perfect situation."

"I recorded my voice an hour after, and it sounded a million times better."

To date, Melisa has undergone the semi-permanent treatment three times. She currently is focusing on fine-tuning the muscles in her throat.

In 2003, she graduated from UOP with a master's degree in Speech-Language Pathology. She followed this with six months serving a clinical fellowship at San Joaquin General Hospital – the same hospital where she received treatment.

Melisa's first teaching job was as a long-term substitute speech-language pathologist at Jefferson Elementary School in Tracy, California. Today she's at Ceres Unified School District in Ceres, California. Her personal experience brings rich insight – sometimes in unexpected ways – to her work helping children with communication delays and impairments.

For example, she can't yell, sing, raise her voice, or give her speech much inflection. Yet this is actually an advantage in the classroom, she says.

"It's helpful for the kids. I never raise my voice, so they know to concentrate."

She uses voice techniques with students with hearing loss. She helps students who stutter to articulate, speak in shorter utterances and slow down their speech – all techniques learned first-hand.

Her students have ranged from pre-schoolers to adults in continuing education. Some have speech that is less intelligible. Often, the cause is language-based; these students have missed learning a group of sounds. To compensate, they substitute other sounds, and don't realize that these are not correct. Melisa first helps them realize that other sounds are needed, then helps them develop the missing sound groups, including learning how to use them and when.

She also has worked with students with hearing loss who have just received cochlear implants, helping them learn "what to filter out and what to focus on, and how they perceive themselves speaking."

One 14-year-old student is recovering from a stroke that affected the right side of his body. With this student, she works on redeveloping immediate memory recall through word finding and using redundancy drills.

"It's scary to see a child deal with that."

On March 31, 2006, Melisa's outstanding work with these students and others was recognized beyond the borders of her school district.

The California Speech-Language-Hearing Association recognized her with its Distinguished Consumer award for her work advocating for speech-language pathology while concurrently benefiting from it. The ceremony

featured a video with Melisa's university professors, hospital colleagues and family, many of whom were in attendance.

As Michelle Hulstrom wrote in her nomination materials, "I am proud to call her my friend but more than that I am proud to call her a colleague."

"Melisa is a living example of the miracle of rehabilitation," wrote Rachel Torres. "Like her therapist that inspired her, she will go on to inspire not only her clients but also everyone who comes in contact with her."

1. When did Melisa enrol in the speech-language pathology graduate program at the University of the Pacific?
2. How did Melisa monitor the quality of her voice?
3. What was special about Melisa's voice?
4. What did Melisa's hypernasality result from?
5. What experimental treatment did Melisa get?
6. What was Melisa's first teaching job?
7. How old are her students?
8. What disorders do Melisa's students have?
9. What award did Melisa win?
10. Why do they call Melisa "miracle of rehabilitation"?

TEXTS FOR SUMMARIZING

STUTTERING

Stuttering – also called stammering or childhood-onset fluency disorder – is a speech disorder that involves frequent and significant problems with normal fluency and flow of speech. People who stutter know what they want to say, but have difficulty saying it. For example, they may repeat or prolong a word, a syllable, or a consonant or vowel sound. Or they may pause during speech because they've reached a problematic word or sound.

Stuttering is common among young children as a normal part of learning to speak. Young children may stutter when their speech and language abilities aren't developed enough to keep up with what they want to say. Most children outgrow this developmental stuttering.

Sometimes, however, stuttering is a chronic condition that persists into adulthood. This type of stuttering can have an impact on self-esteem and interactions with other people.

Children and adults who stutter may benefit from treatments such as speech therapy, using electronic devices to improve speech fluency or cognitive behavioural therapy.

HOW TO TEACH VOWEL SOUNDS

Vowels are typically the first sounds that emerge from our precious little ones and most often not a concern. Starting around the age of 2 months babies begin to "coo" making sounds in the back of their mouth like "ah-ah-ah" and "oh-oh-oh." By the age of 6 months they will have progressed to babbling which involves making sounds with the tongue and the front of the mouth like, "da-da-da-da" and "ma-ma-ma-ma." At 10 – 12 months the anxiously awaited first real words will typically make their debut.

But what happens when your child doesn't follow this developmental sequence? What if your child never really babbled or cooed? What if your child has difficulty even producing vowels, has very few words if any or is highly unintelligible? If this is the case there is likely something more going on and you should see a speech language pathologist (SLP) for a speech and language evaluation.

The speech pathologist will assess the child to see if they can determine the cause of the delay. Difficulty with the production of vowels may be due to a number of things, including hearing loss, a cognitive deficit, or a motor speech

disorder like apraxia or dysarthria. Knowing the cause of the delay will help the SLP as she works with the parents to create a treatment plan.

WHAT ARE PHONOLOGICAL PROCESSES?

Phonological processes are patterns of sound errors that typically developing children use to simplify speech as they are learning to talk. They do this because they don't have the ability to coordinate the lips, tongue, teeth, palate and jaw for clear speech. As a result, they simplify complex words in predictable ways until they develop the coordination required to articulate clearly. For example, they may reduce consonant clusters to a single consonant like, "pane" for "plane" or delete the weak syllable in a word saying, "nana" for "banana." There are many different patterns of simplifications or phonological processes.

These processes are considered normal unless they persist beyond the age when most typically developing children have stopped using them. For example, if your 4-year-old still uses the phonological process of "reduplication" (saying, "wawa" for "water") that would be considered delayed since most children stop using that process by the time they turn 3.

A phonological delay may also be considered if the processes the child is using are different than what would be expected. For example, if your child leaves all of the beginning sounds off of his/her words it would be considered a delay since "initial consonant deletion" is not common in typical development.

The excessive use of phonological processes can also indicate a phonological disorder because when multiple phonological processes are exhibited together it usually increases the child's unintelligibility making them really difficult to understand. As a result, if you have a highly unintelligible child they're likely to have a phonological delay, and their phonological skills should be assessed when considering a treatment plan.

If you're uncertain as to how intelligible your child should be based on their age, the standard guideline is by 2 years old a child should be 50 % intelligible to an unfamiliar listener. By 3 years old they should be 75 % intelligible to an unfamiliar listener and by 4 – 5 years old they should be close to 100 % intelligible to an unfamiliar listener even if a few articulation errors are still present in their speech.

HOW TO IMPROVE READING FLUENCY, COMPREHENSION AND SPEECH PRODUCTION

As a speech-language pathologist I am keenly aware of the positive impact exposing our children to a literacy-rich environment can have. It's a great way to build receptive and expressive language skills as well as prepare our children for a life of literacy. Helping kids with speech sound disorders has been the major focus of my career. I've spent a lot of time trying to identify the best treatment approaches to use with these kids. As I have integrated more stories into my treatment sessions, the children have improved more than just their speech, their literacy skills have improved too.

Helping kids improve their literacy skills can be a challenge. Coming from a family with a high percentage of learning disabilities, mainly dyslexia, I have become very familiar with how difficult that can be. My own children have struggled with reading in varying degrees. The experience I have had helping them, combined with my experience helping kids with speech sound disorders got me thinking, "What more could I do to help kids improve their speech and language development, while also targeting reading fluency and comprehension?" After three years of research and development, and a whole team to back me up, I'm excited to share with you our solution, *Little Stories – for Speech, Language and Literacy*.

I'm proud to say that *Little Stories* is so much more than just little stories, it's educational software that is jam packed with curriculum to help kids meet their literacy goals as well as their receptive and expressive language goals.

IMPROVING READING FLUENCY

As I mentioned earlier, my own kids struggled as they learned to read. While my oldest son initially did okay, in the second grade he started to fall behind as reading fluency (the ability to read with speed, accuracy and proper expression) became a major focus. His teacher told me to go home and time him reading 100 words. I would count out the first 100 words in a book and then put a mark where he needed to stop reading. We would read the passage over and over keeping a record of his time each time he read. This made a big difference in his confidence and his fluency, but I kept thinking there's got to be a better way to measure reading fluency that doesn't interrupt the story.

My oldest daughter struggled even more as she learned to read. We would sit together and make a note of every word she struggled with in a book. Then we would make flashcards for her to practise so the next time she read the book she could read it more fluently. This routine went on and on for a long time as

we struggled to improve her reading fluency by turning those words she struggled with into sight words.

Based on these experiences with my kids and their struggles reading I wanted something that could address both reading fluency and error tracking. I'm so thrilled to say that with *Little Stories* we have made it easy to measure reading fluency and track reading errors! To start with, every story is exactly 100 words, so no more counting out 100 words in a passage before the child can begin reading. To measure reading fluency, you tap on the stopwatch button below the story text. Then after a short countdown the child begins reading. While they read aloud the app is recording. When they finish they press *stop*. Then together with their parent, teacher or SLP they can listen to the recording and mark any words they had difficulty reading as reading errors. When the results are saved the app automatically calculates Words Correct Per Minute (WCPM). It also provides a list of the reading errors that the child can review in flashcards later. How cool is that? The app also tracks and graphs the WCPM and reading errors over time so they can monitor their progress.

IMPROVING READING COMPREHENSION

Reading fluency is more than just being able to decode words and read aloud fluently. The other half of reading fluency is being able to demonstrate comprehension of the text that was read. So, if we don't take time to make sure our children or students understand what they read we are missing half the picture.

My favourite part of reading with my own kids is discussing the theme or moral of the story. Stories can be one of the best ways to teach good values and appropriate social skills. It is also a great way to get a feel of how well they comprehended the story. As a speech-language pathologist, stories are one of my favourite ways to build vocabulary, teach story structure, teach sequencing skills, practise answering questions, explore social skills, and so much more. This is why we spent so much time on developing the comprehension component of *Little Stories*.

The *Little Stories* series has a story retell feature that encourages the child to retell the story in their own words. You can learn so much about the child's receptive and expressive language skills by listening to them retell a story. It also has a sequencing activity that teaches story structure, a *WH* question activity that highlights the "Who, Where and When, What and How" of stories, and a *Story Talk* section that encourages even more exploration of the story. These activities really help children demonstrate story comprehension while solidifying story structure skills preparing them to be better verbal communicators as well as better writers.

As a parent, educator and speech-language pathologist I couldn't be more excited about these story comprehension activities!

IMPROVING SPEECH PRODUCTION

When my oldest son Sam struggled with his /r/ sound I feared that if we didn't fix it he may be judged negatively as not being as intelligent as he is. And he's a really bright kid! After creating my first app, *Articulation Station*, I recognized the need for more sound-saturated stories that our kids could use to help them generalize their speech sounds into conversation. Practising sounds in stories helps bridge the gap between successful speech production in the speech therapy room to successful speech production in real life. This app would have been great for Sam to practise his /r/ sound with all the additional stories that specifically target that sound! Of course, he's a teenager now and it's not his speech that I'm worried about anymore. It's everything else that comes along with having a teenager!

Based on this, each story in *Little Stories* is sound saturated targeting the most common speech sound errors in kids (the /s/, /l/, /r/, and /th/ sounds). These stories hit the target phoneme 20 % of the time creating lots of opportunities to master that sound in each story. The target words can be practised before a child reads the story in flashcards and assessed in the reading fluency test. When the recording is played back of the child reading the story speech errors can be marked to practise in flashcards later. Speech production can also be assessed in the story retell portion when the story retell recording is played back and reviewed for speech errors. Additionally, speech sounds can be practised as the child discusses the story and answers questions about the story.

I couldn't be more thrilled to have sound-saturated stories that are both cleverly written, and beautifully illustrated to target speech sounds. And now, my students with speech sound disorders will benefit from targeting two skills at once – speech and literacy!

HOW TO HELP CHILDREN SPEAK MORE CLEARLY

As children learn new words and their vocabulary expands articulation errors are common in their speech. But when articulation errors persist beyond the age at which most children have mastered their speech sounds or if the frequency of errors affects their intelligibility then they may have a speech sound disorder. Assistance may be required to help them learn to produce the sounds correctly. If you are concerned that your child may have a speech delay

it is recommended that you contact a speech language pathologist for an evaluation.

To teach a child how to walk they first have to stand, and then of course it's a process they learn one step at a time. To teach a child how to say sounds correctly there is also a step by step process. In speech children first need to learn how to say each sound correctly all by itself. Then they learn to say the sound in syllables, words, phrases, sentences, stories and then finally in conversation.

Practising a sound in isolation means saying the sound all by itself without adding a vowel. For example, if you are practising the /n/ sound you would practise saying /n/, /n/, /n/ multiple times in a row. The more accurate repetitions you are able to get your child to produce the better. When your child can say 10 accurate repetitions in a row they are ready to move on to syllables.

Practising a sound in syllables simply means adding a vowel after the target sound, before the target sound, or before and after the target sound allowing you to practise the target sound in all positions of syllables in which the sound occurs.

Just like syllables you have to practise the sound in all positions of the word in which the sound occurs in order to achieve mastery at the word level. The most common place to start practising a target sound is in the beginning of words (initial position) unless the child is more successful with the sound in the middle (medial position) or at the end (final position) of words. You always want to start where the child will be the most successful and then you can build on their success as you practise the sound in other word positions.

HOW THE SPECIAL EDUCATION PROCESS BEGINS

The first step in the special education process is a referral to special education being made. From a service provider's standpoint, it's important for parents to understand that there is a period preceding even this first step that includes pre-referral intervention or data collection and analysis to determine whether referral to special education is merited. If a teacher sees that a child in his or her class is struggling, that teacher may try some form of classroom-based intervention to help the student overcome his or her struggles. Teachers will continue to monitor and collect data on the child's progress or lack of progress with these classroom-based interventions in place to determine if they are effective in helping the child overcome their struggles. A teacher may choose to discuss classroom-based interventions with a parent or, alternatively, a parent who feels that his or her child is struggling can ask to meet with the child's teachers to discuss how classroom-based interventions might be incorporated

into the child's classroom. In certain instances, classroom-based interventions may help the child overcome difficulties without a referral to special education being made.

Pre-referral interventions for speech and language impairments may include such things as teacher-led small group instruction for how to produce a misarticulated speech sound, or visual aids and other language supports being added to classroom curriculum to help a student struggling with receptive and expressive language, etc. Your child's classroom teacher can consult with the school's speech language pathologist for ideas on how to implement classroom-based pre-referral interventions. The teacher will want to put these interventions in place for a few weeks and take accurate data as to student performance with interventions in place to see if they help improve speech/language skills in the classroom. As a parent it's important to understand that these classroom interventions can actually work, and if they do a special education referral is not appropriate; however, if your child continues to exhibit speech/language difficulties despite pre-referral interventions being introduced in the classroom then a formal referral may be appropriate.

TIPS, TRICKS AND A HANDY TOOL FOR TEACHING THE *R* SOUND

There are actually three distinct actions or behaviours that need to be performed correctly for a child (or anyone for that matter) to produce /r/ correctly. These behaviours involve three distinct oral regions: the lips, the tongue and the pharynx, or throat. Basically, these parts of the oral anatomy must constrict, or close up slightly, so that the sound produced by the vocal cords is shaped in such a way that /r/ is produced. I am going to describe what this oral anatomy needs to do, then describe tricks or techniques that can aid in making this happen for your child.

Let's start with the lips. I want you to say *rabbit* right now and, while you do so, concentrate on what your lips are doing when you say the /r/ in *rabbit*. They're probably making the shape of an "O". This rounded lip shape is the first key component of a correct /r/. Second, the tongue must create a hump in the middle of the mouth. Think of the sound coming from the vocal cords having to go over a small mountain made by the tongue. If there's no mountain, there's no correct /r/ sound. Finally, there's the pharynx or upper part of the throat right behind the tongue. For /r/, the pharynx must be slightly constricted, or tightened, in order for the /r/ to sound correct.

Now let's discuss some tricks or techniques for achieving correct lip, tongue and upper throat shapes for /r/. For the lips, I tell my clients to make a "fish face" or to simply stick their lips out and make an "O" with them. One

very powerful aid here is a visual cue, by which you'd simply have the child look at your face while you make a correct /r/, and have the child imitate what your lips are doing. With regard to the upper throat, I often have my clients gargle with water to help them learn to tighten these muscles. The action of keeping the water in the throat while producing, for example, the /ah/ sound, closely models what the upper throat needs to do in order to correctly say /r/. Give it a try!

Now, with the tongue, I'm not going to lie: this is, without a doubt, the trickiest part of the process and in the vast majority of cases, it's the tongue that is the primary source of the child's /r/ difficulty. Because the tongue movement necessary to create this hump or mountain I mentioned above can be difficult to achieve, and because this is all happening behind the visual barrier of the front teeth, I recommend a tactile cue. At *Articulate Technologies* we've created a tool called the *R Speech Buddy*, which provides a very specific tactile cue. This tool allows the child to feel exactly what he needs to do with his tongue in order to produce a correct /r/ sound. Many kids are strong tactile learners, especially in elementary school. The *R Speech Buddy* unlocks a sense of feeling to help them learn the correct tongue movement, as the clinical data we've gathered has shown, up to four times faster! The way it works is actually surprisingly simple. It involves two simple steps, placement and movement.

In the placement phase, the child simply navigates to two sets of bumps. These bumps, placed right behind the upper front teeth, cue the correct starting position for /r/. Once the tongue is in place, the movement phase can begin. Here, the child simply unrolls the coil with his tongue. When the lips and throat are correctly configured, and the child fully unrolls the coil while attempting to say /r/, he will say a correct /r/; if the coil is not fully unrolled, the /r/ will not be correct – it's as simple and reliable as that!

GLOSSARY

academic	pertaining to areas of study that are not primarily vocational or applied, as the humanities or pure mathematics
accurate	free from error or defect; consistent with a standard, rule, or model
acoustic	designed for controlling sound
adenoidectomy	surgical removal of the adenoids
alveolar ridge	the ridgelike border of the upper and lower jaws containing the sockets of the teeth
anatomy	the structure of an animal or plant, or of any of its parts
apraxia	a disorder of the nervous system, characterized by an inability to perform purposeful movements, but not accompanied by a loss of sensory function or paralysis
articulation	the adjustments and movements of speech organs involved in pronouncing a particular sound, taken as a whole
ataxic	characterized by loss of coordination of the muscles, especially of the extremities
audiology	the study of hearing disorders, including evaluation of hearing function and rehabilitation of patients with hearing impairments
autism	a pervasive developmental disorder of children, characterized by impaired communication, excessive rigidity, and emotional detachment
brain	the part of the central nervous system enclosed in the cranium of humans and other vertebrates, consisting of a soft, convoluted mass of grey and white matter and serving to control and coordinate the mental and physical actions
catchphrase	a phrase, as a slogan, that comes to be widely and repeatedly used, often with little of the original meaning remaining
cavity	a hollow space within the body, an organ, a bone, etc.
centre	the middle point, as the point within a circle or sphere equally distant from all points of the circumference or surface, or the point within a regular polygon equally distant from the vertices
cerebellum	a large portion of the brain, serving to coordinate voluntary movements, posture, and balance in humans, being in back of and below the cerebrum and consisting of two lateral lobes and a central lobe
challenge	something that by its nature or character serves as a call to battle, contest, special effort, etc.

client	a person or group that uses the professional advice or services of a lawyer, accountant, advertising agency, architect, etc.
clinician	a physician or other qualified person who is involved in the treatment and observation of patients, as distinguished from one engaged in research
clue	anything that serves to guide or direct in the solution of a problem, mystery, etc.
commercial	a paid advertisement or promotional announcement
communication	the imparting or interchange of thoughts, opinions, or information by speech, writing, or signs
consonant	a speech sound produced by occluding with or without releasing (p, b; t, d; k, g), diverting (m, n, ng), or obstructing (f, v; s, z, etc.) the flow of air from the lungs
conversation	informal interchange of thoughts, information, etc., by spoken words
cue	a sensory signal used to identify experiences, facilitate memory, or organize responses
diagnose	to determine the identity of (a disease, illness, etc.) by a medical examination
disorder	a disturbance in physical or mental health or functions
distraction	something that distracts, divides the attention, or prevents concentration
dyslexia	any of various reading disorders associated with impairment of the ability to interpret spatial relationships or integrate auditory and visual information
echolalia	uncontrollable and immediate repetition of words spoken by another person
endoscopy	an examination by means of an endoscope
estimate	an approximate judgment or calculation, as of the value, amount, time, size, or weight of something
etiology	the cause or origin of a disease
experience	the process or fact of personally observing, encountering, or undergoing something
fellowship	an association of people who share common beliefs or activities
flaccid	lacking force
flaw	a feature that mars the perfection of something
fluent	able to speak or write smoothly, easily, or readily
frustrated	having a feeling of or filled with frustration

health	the general condition of the body or mind with reference to soundness and vigour
hyperkinetic	characterized by an abnormal amount of uncontrolled muscular action
idiom	an expression whose meaning is not predictable from the usual meanings of its constituent elements or from the general grammatical rules of a language and that is not a constituent of a larger expression of like characteristics
impairment	the state of being diminished, weakened, or damaged, especially mentally or physically
ingressive	produced with air being taken into the mouth, as some clicks
inherit	to take or receive (property, a right, a title, etc.) by succession or will, as an heir
judgment	the ability to judge, make a decision, or form an opinion objectively, authoritatively, and wisely, especially in matters affecting action
kindergarten	a school or class for young children between the ages of four and six years old
lesion	any localized, abnormal structural change in the body
lung	either of the two baglike respiratory organs in the thorax of humans and the higher vertebrates
migraine	an extremely severe paroxysmal headache, usually confined to one side of the head and often associated with nausea
monotonous	having very little inflection; limited to a narrow pitch range
nasal	pronounced with the voice issued through the nose, either partly, as in French vowels, or entirely (as in m, n, or the ng of song).
nasal	pronounced with the voice issuing through the nose, either partly, as in French nasal vowels, or entirely (as in m, n, or the ng of song)
neurogenic	originating in a nerve or nerve tissue
neuron	a specialized, impulse-conducting cell that is the functional unit of the nervous system, consisting of the cell body and its processes, the axon and dendrites
outpatient	a patient who receives treatment at a hospital, as in an emergency room or clinic, but is not hospitalized
paralysis	a loss or impairment of voluntary movement in a body part, caused by injury or disease of the nerves, brain, or spinal cord
parrot	to repeat or imitate without thought or understanding
patient	a person who is under medical care or treatment

peer	a person who is equal to another in abilities, qualifications, age, background, and social status
pharynx	the tube or cavity, with its surrounding membrane and muscles, that connects the mouth and nasal passages with the esophagus
phonology	the study of the distribution and patterning of speech sounds in a language and of the tacit rules governing pronunciation
pronunciation	the act or result of producing the sounds of speech, including articulation, stress, and intonation, often with reference to some standard of correctness or acceptability
psychogenic	having origin in the mind or in a mental condition or process
psychology	the science of the mind or of mental states and processes.
ratio	the relation between two similar magnitudes with respect to the number of times the first contains the second
reaction	action in response to a stimulus, as of the system or of a nerve, muscle, etc.
research	diligent and systematic inquiry or investigation into a subject in order to discover or revise facts, theories, applications, etc.
resonance	amplification of the range of audibility of any source of speech sounds, especially of phonation, by various couplings of the cavities of the mouth, nose, sinuses, larynx, pharynx, and upper thorax, and, to some extent, by the skeletal structure of the head and upper chest
rhinolalia	a nasal tone in speech
rhyme	identity in sound of some part, especially the end, of words or lines of verse
root	the source or origin of a thing
routine	a customary or regular course of procedure
sclerosis	a hardening or induration of a tissue or part, or an increase of connective tissue or the like at the expense of more active tissue
scope	extent or range of view, outlook, application, operation, effectiveness, etc.
self-esteem	a realistic respect for or favourable impression of oneself
severity	intensity or sharpness, as of cold or pain
sound	the sensation produced by stimulation of the organs of hearing by vibrations transmitted through the air or other medium
spastic	pertaining to, of the nature of, or characterized by spasm, especially tonic spasm

speech	communication by voice in the distinctively human manner, using arbitrary sounds in conventional ways with conventional meanings
sphincter	a circular band of voluntary or involuntary muscle that encircles an orifice of the body or one of its hollow organs
stutter	to speak in such a way that the rhythm is interrupted by repetitions, blocks or spasms, or prolongations of sounds or syllables, sometimes accompanied by contortions of the face and body
summarize	state or express in a concise form
swallow	to take into the stomach by drawing through the throat and esophagus with a voluntary muscular action, as food, drink, or other substances
syllable	an uninterrupted segment of speech consisting of a vowel sound, a diphthong, or a syllabic consonant, with or without preceding or following consonant sounds
symptom	a phenomenon that arises from and accompanies a particular disease or disorder and serves as an indication of it
temperament	the combination of mental, physical, and emotional traits of a person
therapist	a person trained in the use of physical/psychological methods for helping patients overcome physical/psychological problems
tongue	the usually movable organ in the floor of the mouth in humans and most vertebrates, functioning in eating, in tasting, and, in humans, in speaking
tutor	a person employed to instruct another in some branch or branches of learning, especially a private instructor
valve	a membranous fold or other structure that controls the flow of a fluid, as one that permits blood to flow in one direction only
vary	to change or alter, as in form, appearance, character, or substance
vibration	a periodic motion about an equilibrium position, such as the regular displacement of air in the propagation of sound
vocabulary	the stock of words used by or known to a particular people or group of persons
voice	the sound or sounds uttered through the mouth of living creatures, especially of human beings in speaking, shouting, singing, etc.
weakness	lack of strength, firmness, vigour, or the like

ANNEX

ANNOTATION CLICHÉS

- The title of the text is ...
- The text is written in the form of an article / an essay / a story
- The main topic of the text under analysis is…
- The author's primary objective is to …
- The author's point of view is rather subjective.
- The author tries to present an objective analysis of …
- The text can be divided into ... parts
- The parts complement one another and present the main topic from different points of view / aspects.
- The first/second/third/ … part deals with/highlights the issue of…
- In the … part the author shows/points out that/how…
- In the … part the author emphasises/stresses the idea of …
- The … part concentrates on/analyses/describes…
- The … part gives information on/introduces/discusses…
- The text contains some interesting/unusual/disputable information/facts.
- In my opinion…
- As for me…
- I think, this text is very interesting/boring/important/unimportant because…
- I agree/disagree with the author’s view of the problem, because …

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