

# THE MAINTENANCE OF CONCEPT « VOICE CULTURE » OF TEACHER<sup>1</sup>

## EL CONTENIDO DEL CONCEPTO DE “LA CULTURA VOCAL” DEL MAESTRO

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### RESUMEN

El tema de este artículo es el problema actual de la preparación de los futuros maestros para soportar las posibles cargas sobre su voz. La autora considera que uno de los medios efectivos del perfeccionamiento de calidades profesionales de la voz en situaciones pedagógicas y del desarrollo de habilidades de usar la voz es la formación de la cultura vocal de futuros maestros. Además, se tratan los diversos niveles del concepto de “la cultura vocal”: biológico, técnico y creativo (entonación); y se caracterizan los medios de formación de la cultura vocal, entre los cuales conviene introducir la disciplina “Cultura vocal” en las lista de asignaturas de las facultades de pedagogía.

**Palabras clave:** voz pedagógica, cultura vocal, futuros maestros.

### ABSTRAC

A very actual problem connected with preparation of prospective teachers' for voice loading was elucidated. The author considers that voice culture forming of prospective teachers is one of the effective ways of improvement of professional qualities of pedagogic voice and for developing skills of its effective use. The meaning of definition “voice culture” and levels: biological, technical and creative (connected with intonation) were opened. The author has characterized ways of voice culture forming among which putting the subject “Voice culture” into the list of educational subjects in pedagogic institutions.

**Key words:** voice, prospective teachers, voice culture.

High-grade activity of teachers directly depends on working capacity of the voice apparatus and as skill to own effectively and to care correctly of the instrument of the professional work – voice. But, despite of it, the majority of

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teachers, unfortunately, do not give a voice their due attention, consequences of it are shown in different sorts of problems connected with voice (beginning from subjective feelings: fast fatigue of a voice, restriction of a range of sounding, dryness in a throat, irritation and up to the different sorts of diseases of the voice apparatus). This fact confirms the data of medical researches fixing great prevalence of a pathology of a voice at teachers (according to different authors) at 49 % – 53, 7 % of teachers [1, 3].

Recently, despite of achievements of modern medicine, they do not only observe decrease in quantity of infringements of voice among teachers, and the disturbing tendency of increase from 30–40 % (in 30s–60s of XX century) up to 55–60% – last decade (by O.Orlova, G. Bohme, H.Gundermann. R.Satalloff) is on the contrary fixed [1].

According to the All–Russian centre of science–methodical on phoniatrics, prevalence of diseases of the voice apparatus at teachers makes 65 %. Among the surveyed teachers of comprehensive schools 86 % have functional infringements of voice [1, 3].

Teachers' phonopathies have many negative consequences, among which:

- *economic* as more often problems with a voice arise at teachers during labor activity in the age from 25 till 55 years old. Because of voice problems teachers are compelled to take a disability leave.

On supervision of Smith E. et al. (1997) about 20 % the surveyed teachers lost some working days in current of month because of problems with voice [4].

Such situation leads to additional financial expenses from the state. A.Verdolini, L. Ramig (2001) inform, that approximately 28 million people in the USA annually have problems with voice which influence negatively not only work, but also quality of life. "The price of a question", that is payments on invalidity in this country, only for one teachers makes about \$ 2,5 billion annually [5].

Russian scientists have paid attention to another disturbing fact, that during medical surveys at teachers disease of the voice apparatus is fixed in 3,5 higher, than it is registered on leaves of invalidity. It confirms that a real level of infringements of voice at teachers is very high. Observations show that the teachers do not pay due attention to the condition of the voice apparatus and if they address for the help to the specialist then as a rule it is already a critical situation.

O. Orlova having surveyed 934 teachers, has revealed, that 51,9 % teachers have periodic infringements of voice, 35,5 % from them have infringements once a year, at 9,3 % – two times a year and at 7,1 % . – more than two yearly. The ill–timed visit to doctors and active use of a voice in a sick condition leads to transition in chronic infringements of voice, with the tendency to periodic relapses which are treated longer and more difficultly.

- *professional negative consequences* of infringements of voice do not allow teacher to realize in a due measure all the knowledge and skills. Besides because of weakness of the voice apparatus some teachers are compelled to change occupation that deprives a society of the qualified pedagogical staff (L. Goncharuk, V. Pankova).
- *educational negative consequences* affect quality of mastering of learning material by students.
- *personal negative consequences* are shown in absence of an opportunity to realize themselves to the full measure. Infringements of voice are very often accompanied with physical discomfort, headaches, fast tiredness, uneasiness, sleeplessness, irritability. Long infringements of voice create additional psycho-traumatic situation as the attention of teacher is constantly fixed on quality of sounding of the voice. There are cases when teachers are compelled to change occupation that leads to development of additional stress-producing factor in interpersonal relationships.

Thus many-sidedness of negative consequences forces to study in details the reasons causing infringements of voice at teachers.

O. Orlova distinguishes a number of the reasons promoting voice infringements at teachers who can conditionally be divided on:

- *biological* (the constitutional features, age, sex, concomitant diseases);
- *household* (the marital status, structure of family, living conditions);
- *professional* (length of service, the experience, duration and intensity of voice loading);
- *psychological* (disputed situations–household and professional, psycho-emotional and character-logical qualities of person). However, the combination of two and more factors which lead to infringements of a voice at teachers is quite often observed. We will consider the reasons of occurrence of infringements of voice in more detail [1].

One of the reasons is *the overstrain of the voice apparatus* owing to *daily long voice loading*. It is connected with the fact that all pedagogical activity is connected with active use of the voice apparatus. This fact is also confirmed with data of chronometric researches approving that teacher actively uses voice apparatus during about 50 % his (her) working hours communicating with pupils, their parents, colleagues and representatives of administration. Teachers not simply speak for a long time every day but they speak for many years.

In a daily life, household speech is mainly in the form of dialogue and the voice easily copes with the put loading. But in that case when professional work is beyond a household voice – habitual skills are not enough.

L. Rabotnov, F. Zasedatelev approved, that active use of colloquial voice during two hours is that norm which allows voice to function without visible negative changes. Excess of the given norm negatively affects condition of the unprepared voice apparatus. And though among teachers there are people whose voice «is put by nature», however these cases are rare and more likely are exception. However, we can't forget that even the good voice at absence of special training in the course of time spoils, wears out and degrades.

It is important to note, that during professional work teacher is compelled to speak not simply for long time but *to speak more loudly than usual* for maintenance of sufficient audibility of information which was told for students. Sometimes, increase of intensity of a voice is connected also with necessity to block noise in class which on the average makes 55–72 decibels while intensity of a healthy voice is within the limits of 65–74 decibels.

Such situation renders negative influence on voice system in consequence of shadowing and compels teachers to raise intensity of a voice even more that in turn is a starting point for defeat of the voice apparatus.

Besides occurrence of infringements of voice at teachers is also promoted with *unstable economic situation*. As a rule, because of a rise of prices, low salaries teachers are compelled to take additional pedagogical loading, therefore they work with significant excess of voice norms. All it causes the raised loading on the voice apparatus and nervous system of teachers.

Among the numerous reasons promoting occurrence of infringement of voice, special place is allocated to *psychological (stressful) factors* as the voice and mentality are interconnected. Therefore, the condition of voice is influenced negatively with high rate of the life, the intense level of work, overloading with the information, potato coach lifestyle, family conflicts, intellectual and physical activity, and also negative emotions.

Observations show that infringements of voice is more often at people whose work is connected with *excitement and the big responsibility*. And considering that all pedagogical activity is connected with a great nervously–emotional pressure, it becomes clear why teachers win first place, among all representatives of voice–speech trades, on prevalence of infringements of voice.

Teachers as the professional group is characterized by very low parameters of physical and mental health that is explained with the fact that work of teacher belongs to the category of complex, stressful, most strained ones in the psychological plan and demands in the most intense form from person his (her) great reserves of self–control and auto regulation.

And though all teachers have big voice loading, the degree of exhaustion of voice depends on subject they teach. The highest percent of fatigue of voice is characteristic for teachers of foreign language (59 %), language and the litera-

ture (58,2 %), and also teachers of geography (57,6 %), mathematics (57,5 %), and also for teachers of primary school (56,8 %). PT teachers (20 %), work and drawing teachers (34 %) suffer less [6].

But the highest percent of fatigue of voice is fixed at managers (head teachers, directors) who have rather small voice loading. However, they are constantly in condition of great stress in comparison with usual teachers [6].

It confirms that fact, that at nervous exhaustion even usual voice loading becomes heavy sometimes as coordination of breath and function of phonation directly depend on the general condition of an organism and external conditions.

Otolaryngologists of the National center of voice and speech and the (American) approve that female teachers have voice problems even more often than singers and actors. This is because of the fact that women react to an event more emotionally than men. The job of teacher demands constant speeches in front of an audience because of what the risk of voice loss or other problems with vocal cords increases in 32 times.

Pedagogical activity is closely connected with constant attention in relation to an audience. The mood of an audience should be supervised and considered all the time, as it is necessary to hold listeners in a condition of certain «tonus». And not only to support personal emotional pressure, but also to cause the response in others, forcing to devour every word.

The nervous pressure leads to muscular constraint which during the moment of excitement covers all organism of person, including the respiratory and voice apparatus. It is that from muscular constraint there are various defects of sounding speech: «squeezed, dim» voice, sudden hoarseness, faltering breath, etc. In order to give voice freedom, to provide flexibility, it is impossible to permit muscular clips, and at their occurrence – to be able to remove them in time.

Psychologists noticed an interesting law: if the teacher speaks with pressure there necessarily will be «a mass cough» in an audience, they will have a tickling feeling in the throat or there will be unpleasant sensations in throat. It confirms the assumption that process of speech perception or so-called listening occurs not only through the acoustical channel, but also through pronouncing organs that is when person perceives speech simultaneously with speaking as though «micropronounces» it, echos in internal speech or singing, making muscular reductions, micro-movements synchronously with the person who is being perceived.

Timbre of voice, its overtones strongly influence a condition of people who listen: positively and promote mastering of the stated information or pushing away.

Therefore, skill to own the voice is necessary for teacher. However, given skill is not formed in itself, it is necessary to form purposefully.

For today, the future teachers are unprepared to voice loadings that is the main reason of distribution of infringements of voice among teachers. For today

the given work is not done in appropriate way as the fact testifies that infringements of voice are fixed at young teachers (72 %) in first three years of work. According to O. Orlova, 55 % of teachers have already had different kinds of infringement of voice on the first year of work [1].

We can judge about *inability to own the voice apparatus correctly* literally from the first words of greeting said by the teacher after an exhalation on so-called residual air when speech is under construction without a sufficient respiratory support. If the exhalation is truncated, the teacher breathes more often, inhales with mouth not humidified and crude air which dries and irritates a mucous membrane of a throat and larynx that conducts to chronic catarrh.

Many researchers (Lavrova E.V., Mihalevskaja I.A., etc.) mark high sensitivity of the voice apparatus concerning influence of imperfect vocal and speech techniques on frequency of diseases of the voice apparatus.

When the use of the phonation apparatus is unskillful and we can see neglect of the basic requirements of hygiene, voice becomes weak, the timbre changes, range is narrowed, there can be breath difficulties, unpleasant sensations in a throat and larynx.

Teachers should know, that the larynx is not adapted for long contact with air of an external environment. At voice loading the breath is often carried out through a mouth, passing the protective mechanism of nose cavity. And the combination of unfavorable external factors, presence of small pieces of chalk near the blackboard, temperature influence (cold or hot audiences), unfavorable acoustic conditions in a combination with the big voice loading is especially dangerous for the voice apparatus.

Working conditions are also very important, namely: a dustiness with small pieces of chalk near the blackboard, temperature influence (cold or hot premises), adverse acoustic conditions influence a condition of the voice apparatus in negative way and also presence of an air-drop infection which often is present at children's collective. The law was established – the younger the age category with which the teacher has to work, the higher is the risk of occurrence of diseases of the upper respiratory ways. Therefore, use of different sorts of conditionings becomes actual as maximally effective way of strengthening health, regulation of activity of vegetative nervous system, and preventive maintenance of acute respiratory virus infections.

Teachers (especially teachers of higher educational institutions) often ignore opportunities to modulate pitch and power of a sound that makes their speech not only monotonous, dry and inexpressive, and it is also the precondition for occurrence of infringements of voice.

Thus, we have come to conclusion, that though all teachers have a voice given for them from birth but they do not know and are not able to own it effectively and to care of it correctly.

It is directly connected with the fact that it is not customary to speak about voice and it is not customary to pay attention to voice. Questioning has shown that future teachers at entering pedagogical educational institution do not reflect on opportunities of the voice apparatus. As consequence, people with the weak or sick voice device quite often become students, and when they become teachers do not manage with voice loading in a due measure.

As practice shows also during study in a pedagogical educational institution they do not pay proper attention to development of the voice apparatus. For today work on development of voice is done only at musical faculties where the basic educational subject in the frames of which they study the development of the voice is the subject «Solo singing». The analysis of the curriculum on subject allows to approve that training in a class of solo singing, is basically orientated on performing activity and development of a vocal voice. The technique of vocal formation of singers–executors is put in a basis of voice preparation of students of musical faculties and updated for work with students of pedagogical educational institutions (the simplified repertoire, the underestimated requirements to vocal–technical skill). The analysis of specificity of voice activity of the teacher of music reveals its many–sided nature, including active use of not only vocal but also a speech voice. Considering essential distinguishing in a technique of work on perfection of a vocal and speech voice, it is necessary to put forward need of carrying out work on perfection not only vocal, but also a speech voice.

However, the analysis of studied subjects lead by us in a pedagogical educational institution has shown that there is no such a subject which would acquaint with physiology of the voice apparatus, the basic symptoms of voice infringements, would improve voice data of the future teachers and so on, that is would use complex approach for preparation of the future teachers for voice loadings.

There are subjects in the program of future teachers training which indirectly mention the questions connected with voice, namely: on the 1st year the subject «Anatomy, human physiology» where one of themes which assumes acquaintance with a structure of the voice apparatus is studied; on the 4th year the subject «Pedagogical mastery» where though questions of speech techniques are considered, however they give only 1 hour on it that is insufficient for perfection of diction, breathing and voice. The basic part of material is allocated on independent studying. But students cannot do the given work independently because it is long process which necessarily should be under the guidance of the expert.

The fact testifies about the need of this work as recently the courses directed on development, perfection of speech skills got special popularity. And though they have different names "Voice training", «Oratorical skill», «the

Charismatic orator», etc., however, all of them, are anyway directed on perfection of speech voice. These courses are very popular. They are counted on the broad audience of listeners – representatives of different voice professions and hence, they do not consider specificity of pedagogical activity. Therefore, there is a necessity of mastering voice culture by the future teachers.

The term « *voice culture* » is not new, it is actively used by the founder and the manager of «Schools of a suitable voice» V. Bagrunov, however he does not open its matter in details that requires minute studying.

To understand essence of definition «voice culture» it is necessary to analyze generic definitions "voice" and "culture" in relation to an investigated definition.

Concept "*voice*" (from Latin. *vox*, French *voix*, Italian *voce*, English *voice*, German *stimme*) is interpreted very widely. In the directory «Pedagogical speech study» the voice is considered as:

1. Ability to speak or sing.
2. Set of the sounds made by vocal cords in the way of modulation of exhaled air.
3. The acoustic phenomenon which essence concludes that sounds formed by means of vocal cords have information on specific features of speaker: his (her) physical, emotional, psychological condition, intellectual, sociocultural level, professional and national identity [2].

Voice can be *speech* and *vocal* according to mechanisms vocalization, to the purposes and ways of use.

They imply the complex phenomenon under the definition *the speech voice* which units sounds which go from oropharyngen cavity of person. It doesn't matter whether they are intended for expression an idea and feelings or they are result of subconscious reflectory muscular movements in the form of groan, laughter, shout and even sonorous cough.

Human voice is exposed to changes during all his (her) life. Having arisen at birth as an innate unlearned reflex, the voice is formed on its basis by formation of valuable conditioned–reflex connections. By the age of two there are first words, phrases, the pronunciation of five public letters is formed. The period of puberty is characterized by appreciable changes in voice, its timbre, pitch and power. Voice stabilization after mutation covers the period to 2 years. Its final development reaches by 40 years. Voice ageing begins with devolution of anatomic components which take part in its development.

People who use their voice professionally must know about the processes occurring to voice as during the "critical" moments the voice becomes especially vulnerable and demands the careful attitude.

The second part of the term «the voice culture» makes multidimensional concept "culture" which maintenance depends on spheres of its use.

In the Internet – encyclopedias «Wikipediya» they say that as *culture* is understood as the areas of human activity connected with *self-expression* (a religious faith, imitation) the person, *display of his (her) subjectivity* (character, competence, skills and knowledge) [7].

Culture is also *positive experience, knowledge of person* or group of the people, assimilated in one of spheres of a life (in the person, in the politics, in art, etc.). Culture – is the artificial environment. Under a word "culture" we can perceive absolutely everything created by people. The culture is also positive experience and knowledge which carry benefit for their carrier and therefore are used.

Lillian Brown approves that it is not important what voice person has from birth. Person can grow up/develop such voice of which is necessary for professional work and individuality, namely: to learn to articulate precisely and to pronounce sounds correctly, to develop resonant fluctuations in breast and to learn to speak so that to be heard in the last row of an audience without the slightest strain from speaker.

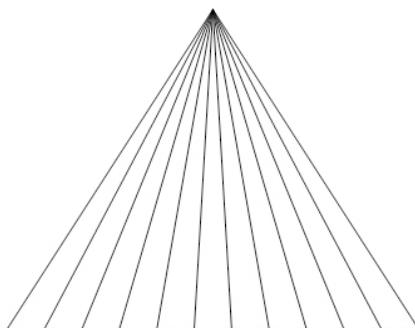
We consider that *the voice culture* is called to save up, strengthen, develop, enrich and prepare voice for professional use.

The human voice represents a unique phenomenon. For a long time. it draws attention of representatives of different sciences and till now it continues to remain not studied to the end.

Necessity to improve voice induces different sciences to study voice function. So, *acoustics* analyzes a sound of voice as the physical phenomenon, *the physiology* tries to explain the mechanism of generation of sound in the voice apparatus, from the point of view of *biology* and *biophysics* voice is considered as a product of activity of an organism, *from the point of view of vocal art* — as an aesthetic product, from the point of view of *psychology* — as a parameter reflecting an emotional condition of person; *phoniatics* as the section of medicine considers diseases, methods of treatment and preventive maintenance of frustration of voice function, *speech training* – studies various variants of infringements of speech and a voice; the task of *phonopedy* is to correct voice with the special pedagogical methods. Recently the voice as the tool of influence on the person becomes a subject of active interest in the field of *PR-technologies*.

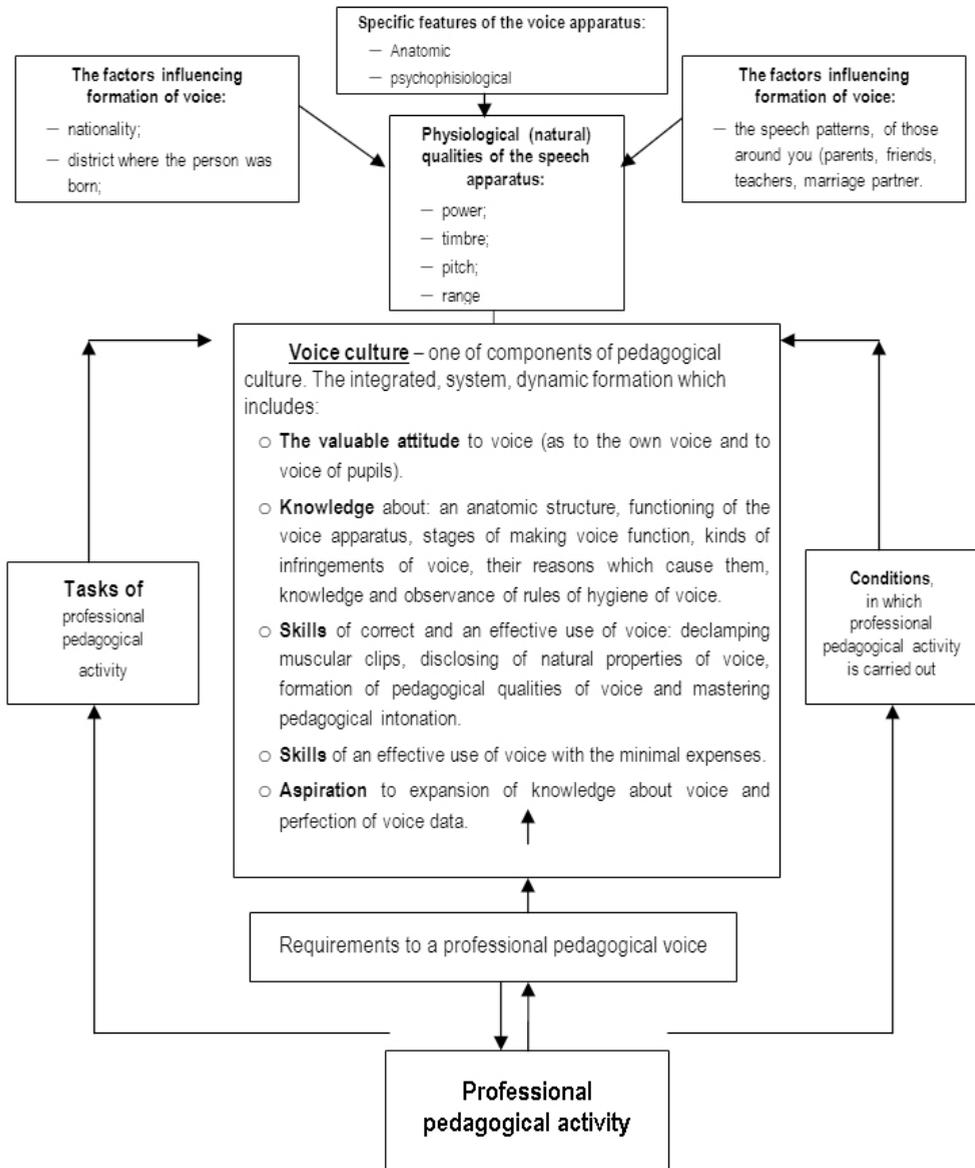
In figure 1 sciences which study a voice are represented schematically where each of edges symbolizes the certain research area.

**Fig. 1.** The sciences studying voice



- acoustics
- physiology
- phonopedy
- phoniatics
- speech training
- hygiene
- pedagogics
- vocal pedagogics
- neurophysiology
- biophysics
- phonetics
- psychology
- physiology

**Fig. 2.** Structure of voice culture of teacher



However, any of sciences does not form complete representation about voice function of an organism, they are only limited to the certain spectrum of problems. Absence of a joint base science has led to deficiency of knowledge at the pedagogical staff in questions of anatomy, physiology, voice hygiene, the

reasons of occurrence of voice infringements, the basic kinds and their distinctive symptoms, etc. and as consequence – to a high level of infringements of voice among teaches.

It is not obviously possible for the teacher to have a profound knowledge on each of the named sciences, however, we consider that it is necessary to separate that significant part for the teacher which in the way of integration will allow to unite achievements of the different sciences which study voice and to refract them to teacher activity.

Separation of concept «*voice culture*» is conditioned from one side –with requirements to teacher voice, lodged with professional work and from another, – weakness, not sufficient preparation of the voice apparatus of students.

We consider voice culture as the multilevel phenomenon where we can separate biological, technical and intonational (creative) levels. The first level – *biological* which assumes presence of the healthy voice apparatus that forms a basis for the following one – *a technological level* which includes work at breath, diction and formation of professional qualities of voice.

The third – *the intonational or creative level* sets the purpose of mastering pedagogical intonation.

*Summing up all told above we can draw a conclusion that protection of teacher voice gets the state importance today.*

One of effective ways of way out from the developed situation is purposeful mastering voice culture by the future teachers still in the process of training that will allow to approach to the decision of a problem in a complex way: to promote decrease of infringements of voice among teachers, to raise quality of mastering learning material by pupils a and even to warn occurrence of infringements of voice among children as the voice of the teacher is the sample for children who easily seize both good, and bad habits. We consider that the teacher should be a vivid example of correct use of the voice apparatus and therefore he (she) should know and be personally able to use voice effectively and to care of it correctly.

## THE LITERATURE (TRANSLITERATED)

1. Orlova O.S. Narusheniya golosa [Text] / O.S.Orlova. – M.:ACT: Astrel'; Vladimir: VKT, 2008. – 220 p.
2. Pedagogicheskoe rechevedenie. The Dictionary–directory. – Izd. 2, ispr. and dop./pod red. T.A.Ladyzhenskoj and A.K.Mihalskoj; sost. A.A.Knjazkov. – M.: Flint, Nauka, 1998. – 312 p.

3. Shydlovs'ka T.A. Funktsionalni\_ porushennya golosu [Text] / T.A.Shidlovs'ka – K.: Logos 2011. – 523 p.
4. Smith E., Gray S.D., Dove H., Kirchner L., Heras H. Frequency and effects of teachers voice problem // J. Voice. 1997. – Vol. 11 (1). – P. 81 – 87.
5. Verdolini K., Ramig L.O. Review: occupational risks for voice problems // Logoped. Phoniatr Vocol. 2001. – Vol. 26. – 1. – P. 37 – 46
6. [An electronic resource] the Mode of access:
7. <http://nature.web.ru/db/msg.html?mid=1171068&s=111400070>
8. An electronic resource] the Mode of access: <http://ru.wikipedia.org/wiki/>