

УДК 81'23

**EXPERIMENTAL INVESTIGATION OF TEEN-AGERS' ATTENTION AS A FACTOR OF SUCCESSFUL ENGLISH LANGUAGE MASTERING**

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*У статті показано, як увага і різні її види впливають на успішність засвоєння іноземної мови. Представлено результати експериментального дослідження.*

**Ключові слова:** *види уваги, мовно-слухова увага, мовно-зорова увага, стійкість уваги, концентрація уваги, індивідуальні відхилення.*

*В статье показано как внимание и разные его виды влияют на успешность усвоения иностранного языка. Представлены результаты экспериментального исследования.*

**Ключевые слова:** *виды внимания, язычно-зрительное внимание, язычно-слуховое внимание, стойкость внимания, концентрация внимания, индивидуальные отклонения.*

*In the article it is shown how attention and different kinds of it influence on successful English language mastering. The results of experimental research are presented.*

**Key words:** *kinds of attention, language hearing attention, language visual attention, stability of attention, concentration of attention, individual deviations.*

**Introduction.** Among psychic phenomena and their characteristics the attention takes a particular place: it is a constituent part of all kinds of activity. The great significance for attention has its volume.

According to the results of psychological investigations the volume of attention measures by the number of objects, which can be perceived simultaneously with enough clarity. Some researchers took the indexes of the volume of attention not only by the number of objects, but they took into account a time the person under research used to envelop them.

On the basis of the analysis of the notion “volume of attention” in classic and modern psychology K. M. Samushchenko came to the conclusion that “volume of attention” is determined by maximum number of objects (elements, impressions etc), which one perceps (envelop, recognize, etc.) simultaneously during the limited piece of time.

One of the first researchers of the volume of attention, F. Mesmer, came to the conclusion that there is an objective and subjective types of attention according to the characteristics of its volume. There are people with not big volume of attention, they do not add something to the object of perception, and, there are people with greater volume of attention and they thanks to their fantasy add the objects that were not presented while they percept the things.

These theses of F. Mesmer were criticized by M. F. Dobrynin who on the basis of experimental datas proved that it is not correct to differentiate objective and subjective types of attention by the volume.

All the researchers of the volume of attention pointed to the regularity that volume of attention depends on the number of objects which are perceived by a man. But, if the objects are not connected with each other, the adult can percept four or six objects, and the schoolchildren - from two to five in dependance of the age. So, according to the results of M. F. Dobrynin’s research, the volume of attention in younger schoolchildren consist of two or three objects and in teen-agers - three or four objects.

Hence, the connection was established between the age of a man and his volume of attention – it increases relatively to the age.

The researchers confirmed that the volume of attention depends on the objects linking. M. F. Dobrynin established that by the conditions of including the objects of perception in sense connections, for example, letters into words, the number of reflected letters will increase essentially. There were also established the individual distinctions in volume of attention: in some adults the volume of attention consists of sixteen objects, and the individual middle of the English language deviation is in the measures from five to eleven objects. Such regularities were marked by all the researchers, who studied this problem. There were also tryings to explain the physiological mechanisms.

Some hypotheses which connect the attention with self-control of activity were marked by P.Y. Halperin. He stated that it is possible to consider the attention according to its content, as an action of control and according to its form – as an ideal reducing. Some of the followers of P. Y. Halperin think, for example S. L. Kobylnytska, that the well formed automatized actions of control provide such results of activity, which do not differ from the attention in self-control of the results of activity. But activity value in general and educational in particular, includes, besides mentioned constituent parts the others: contential-informational, motivational, emotional-willing, communicative and resultative ones.

We have in scientific literature the theoretical theses which connect the role of attention in formation of aim and partially operational and control-appreciative components of activity.

According to the point of view of O.V. Skrypchenko, the attention plays its unique role in these components of activity. Contential-informational component of educational activity includes the system of images and as well the concrete

and abstract notions, reflections, conclusions etc. which the schoolchildren should get. This component includes the notions, reasonings etc. that are fixed in their memory. According to the first group of mentioned substructures, the significant role there for attention functioning plays the novelty and emotional impulse which the educational information carries.

O. V. Skrypchenko substantiated that different virtues and, in particular, mentioned kinds of attention play the specific role in transition from concrete to abstract and from abstract to concrete during the process of information mastering. The attention in the first component can play the role of diagnostics of tiredness or mental work ability of students. With a help of attention functioning the teacher can make a conclusion about their overstraining by educational information or does the educational information correspond to the level of their knowledge and age peculiarities.

At the beginning of information perception the stability of attention is higher then at the end of it. Increasing mistakes in perception of informational signals and appearing of tiredness testify about it, as showed the investigations of D. P. Bilous, V. S. Kompanets and others.

O.V. Skrypchenko noted that specific role of attention is reflected not only in mechanism of recognizing, but in the purpose of educational perception as well. The role of attention in motive component formation is partially established, mostly in a theoretical aspect. In motive component formation the educational activity of a schoolchild, that is his learning, is very important. It can be connected, as Pierson and others think, with the internal organization of the individual and with his/her relation to his/her needs.

At this time, it is necessary to take into account, as O.V. Skrypchenko pointed, that available in child are not only biogenetic, but psychogenetic and sociogenetic needs. The effectiveness of education will depend from the fact of existed

information becoming as the leading object of attention in educational activity. By this, it is important to mention that for a schoolchild the object of attention can be not only one of surrounding objects in a class, but imaginary also. In such cases the teacher can think about student's concentrating at his information, while in reality the attention has been already concentrated on the imaginary object connected with his needs.

Determination of the role of attention in the operational component of activity was theoretically grounded by M. F. Dobrynin, but O.V. Skrypchenko considers, that it will be better to find out experimentally the role of attention in appearing of the task of subject as a result of the analysis of problematic situation; in association appearing connected with a content and structure of a task; eliminating of associations; appearing of the hypothesis and plan of solving the task; checking of the hypothesis; getting obtain more specific information, conforming or negating the results.

It is very important to learn the role of attention in providing by a subject the motor, perceptive, mental, imaginative, willing and other actions. We have in the scientific literature some data about the role of attention in abilities and skills formation, but this is important for the specifics of educational activity which includes such abilities and skills. There is much air in the investigating of the role of attention in operational components of the activity of a teacher. Here it is possible to search not only common things, but the distinctive also, which are substantiated by methods and ways of education. It is possible to think that on the level of ability formation a correlative connection exists between the quickness and exactness of actions performing. It will change step by step, in transition from ability to a skill, where the actions become automatized and their performing is under the control of consciousness.

The place of attention in communicative component of education is substantiated by its role in communication with a

teacher or other school mates and a teacher with a pupil and a class etc. In works of V. V. Vlasenko there are hypotheses connected with a place of attention in the mechanism of communication in the system teacher-pupil, pupil-teacher, teacher-pupils etc.

The important data about the state of attention in oral questioning have got I. V. Strahov, T.A.Korman, A.S.Borondulina, N. V. Lavrova, T. S. Smirnova and others. But, the role of attention according to the other forms of the knowledge control in schoolchildren isn't investigated enough. We can find in scientific literature the theoretical basis of the role of attention in educational activity. It can become the essential in providing the concrete experimental researches in which the place of attention in educational activity of a child and a teacher as well will open. But, we must constant the fact, that the general theory of attention in the educational activity is absent. We didn't put the task to check the state of the development of the volume of attention in teen-agers and check the conclusions of the former researchers.

**The aim of the study** is to analyze the scientific literature which touches the problems of the development of attention, its volume and kinds; to learn the psychological points of view concerning the investigations of attention in the process of educational activity; to generalize the researchers' thoughts and to point out the peculiarities of the influence of attention on the school successfulness in English language mastering.

**Materials and methods.** For solving the tasks we put we used approbated methodics of the volume of attention diagnostics. We'll describe them with some little changes conditioned by the age of children.

The first methodic, which we used was a corrective one. The index of the capacity for work was taken the stableness of individual's attention, which we determined with a help of a corrective test. It included the material of the table of Burdon (variant B). The table consisted of thirty rows and thirty letters

in each of them, but only eight letters were used. The teen-agers worked with it writing out the letter “k” in all cases, but when “i” stood before it they didn’t do that. We gave them four minutes to do the task. Then we summed up the mistakes and according to the formula  $A=V: m+1 \text{ times } 100$  (A-attention, V-rapidity, m-quantity of mistakes) we determined the level of the stability of attention.

In the second methodic, as changed variant of others, the volume of attention was researched with a help of cards, on which ten words were written. It was necessary to put them in alphabet order. The test was done twice.

The third methodic was directed on the determination of language attention and consisted of two tests. Firstly, we determined language hearing attention. It was listening of ten separate syllables with the next their distinguishing among others. The schoolchildren got the cards with twenty five syllables and tried to find those ten they heard. Near every syllable they put “+” or “-” in dependence of their recognizing. For example,

#### **Syllables for listening**

1. set; 2. was; 3. me; 4. fix; 5. can; 6. nic; 7. ten; 8. in; 9. do; 10. ran.

#### **Syllables for distinguishing**

1. hot; 2. was; 3. car; 4. pit; 5. me; 6. ten; 7. pat; 8. all; 9. mic; 10. ran; 11. sem; 12. set; 13. but; 14. tic; 15. not; 16. fix; 17. les; 18. in; 19. man; 20. cat; 21. do; 22. cab; 23. nic; 24. so; 25. can.

The second test determined language visual attention. It consists in reading of ten separate syllables with the next their distinguishing among others on the next card. The material for this task was like a previous one.

#### **Syllables for reading**

1. cab; 2. do; 3. not; 4. so; 5. ten; 6. van; 7. set; 8. all; 9. hot; 10. nic.

**Syllables for distinguishing**

1. all; 2. do; 3. not; 4. so; 5. vic; 6. van; 7. mon; 8. all; 9. hot; 10. nic; 11. val; 12. ran; 13. pac; 14. pat; 15. hot; 16. les; 17; ten; 18. mid; 19. mon; 20. cab; 21. set; 22. was; 23. rab; 24. kin; 25. nic.

For foreign language mastering the great significance has a level of the development of auditive (hearing) and visual attention, which depends on the development of correspondant receptor. Because language visual attention is closely connected with a written speech and language hearing attention with the oral one, without a fixed hearing attention it is impossible to learn the children to hear the foreign language and without a visual one – to see all the peculiarities of it. Presence of receptional attention raise the perceptiveness of the organs of perception, speed up the process of perception, stipulate the clarity and exactness in reflecting the things.

**Results.** Results of these tests allow making a conclusion of what attention is better developed: language hearing or language visual. There were children with the same level of these kinds development.

The authors of these methodics prove that all these methodics give the chance to diagnose the volume of attention. Some of them consider that by one and the same methodic can be put the diagnosis of the volume of attention and its distribution or stability. For determining the individual distinguishes was determined the middle index according to the age of children.

Table 1

**Deviations from the middle indexes which diagnosed the age of schoolchildren**

Classes / indexes	7	8	9
<b>sigma</b>	+/- 0,13	+/- 0,26	+/- 0,31
- <b>X;</b> <b>V ( in %)</b>	<b>12,9;</b> +/- 2,32	<b>13,9;</b> +/- 1,78;	<b>15;</b> +/- 2,06



As we see from the table, the middle indexes of the deviation and also the coefficients of variation of diagnostics of the individual distinguishes of the age of schoolchildren of seven-nine classes got narrow from 2,32 % to 1,78 %, and then widen to 2,06 %.

Table 2

**Deviations from the middle indexes which diagnosed the language visual attention of schoolchildren**

Classes / indexes	7	8	9
<b>sigma</b>	+/- 30,49	+/- 29,83	+/- 26,62
- <b>X;</b> <b>V ( in %)</b>	63,9; +/- 47,65	66,8; +/- 44,66;	77,9; +/- 34,15

The results of the investigation show that the measure of individual distinguishes for the index of language visual attention reduces.

Table 3

**Deviations from the middle indexes which diagnosed the language hearing attention of schoolchildren**

Classes / indexes	7	8	9
<b>sigma</b>	+/- 26,72	+/- 26,86	+/- 18,97
- <b>X;</b> <b>V ( in %)</b>	58,5; +/- 45,67	59,7; +/- 44,99;	68,7; +/- 27,61

The measure of individual distinguishes according to the index of language hearing attention is less than according to the index of language visual one. It means that language visual attention actualizes better than language hearing. It proves the effectiveness of visual signal system and also testifies that it is necessary to develop the hearing attention of schoolchildren.

The results of the investigation point to the fact that in working out the text-books and also in practical work it is

necessary to take into account the dynamics of the individual distinguishes of schoolchildren.

**Materials and methods.** It is known that stability of attention means concentration on a concrete subject or its part during a definite piece of time. It is showed in long concentrating on a definite object. The stability of attention is also characterized as an ability to take the attention, without interruption to concentrate it on the same object or action. That is, we can make the conclusions about it by the length of supporting of the directed activity, by time, during which the man works over the determined task, without interrupting the attention while doing it.

H.K. Kostiuk considered the stability of attention as a necessary condition for doing the task and getting the positive result. He characterized the stability of attention as a condition and a result of the aim directed activity of a man. M.S. Horbach is sure that stability of attention depends on the ability of a teacher to organize a lesson and on demands of schoolchildren during the school year. A.N. Leontiev, as many other researchers, pointed that stability of attention depends on the activity and interest to this activity. According to the investigation of H. V. Petuhova, in the condition of a game the stability of attention increases in comparison to doing the tasks which are not relevant with a game. But, in terms of doing the task which is not connected with a game, the quantity of mistakes reduces.

We put the task to find out the stability of schoolchildren's attention which we take as an index of their work ability. Native scientists established that work ability is the most significant point for the successfulness in studying. At the same time, the foreign scientists consider that the basic reason of low successfulness is a hereditary inability.

Table 4

**Deviations from the middle indexes which diagnosed the stability of attention of the pupils of seven-nine forms**

Classes/ Indexes	7	8	9
Sigma	+/- 10,73	+/- 14,96	+/- 18,95
- X; V (in%)	81,1; +/- 12,54	68,2; +/- 21,94	81,5; +/- 22,7

As we see from the table, the tendency concerns to widening of the measure of individual distinguishes in stability of attention. We also observed the tendency of time reducing in doing the tasks which testifies the stability if attention becomes better. The best results have the schoolchildren of the ninth form.

**Materials and methods.** Directness and the level of attention concentrating to a definite object are different in different people. As the native psychologists stated, the attention as a psychic phenomenon, is the process of choice direction and subjective concentrating of the conscioussness, which is determined by the concrete objective life conditions and activity of people. For successful foreign language activity are necessary such developed components of attention as directness and concentraition. The last component is very significant for providing two-language (translating) excercises, when it is necessary to take up the attention from one object to another. The role of attention as a form of reflected activity organization has been already defined. This role is in choice of attention, its directness to one object and semalteniously taking up the attention from the others.

Speaking about attention, M. K. Kornilov, A. O. Smirnov, B M. Teplov and others understood, first of all, its choicy character. In term directness they include also a keeping of activity during the definite piece of time. It isn't enough, as the scientists think, to choose this or that activity in order to

be attentive. It is necessary to keep this choice and save it. In pedagogical process, for example, it is not difficult to direct the pupil's attention to this or that object or action, but it is more difficult to keep it for all necessary time.

Another characteristic of attention is its concentration. In this term they understand, first of all, more or less deepening into activity. The more complicated is a task, the more intensive and deep is the attention of a child. The easier it is, the less deep is the attention. These two characteristic features of attention are not the same. Directness is especially seen in changing one activity to another, the concentrating – in deepening into a work. Let's see the level of concentration of the attention in the next table.

Table 5

**Deviation from middle indexes which diagnosed the concentration of attention of the pupils of seven-nine forms**

<b>Classes / Indexes</b>	<b>7</b>	<b>8</b>	<b>9</b>
<b>Sigma</b>	<b>+/- 24,27</b>	<b>+/- 25,98</b>	<b>+/- 15,82</b>
<b>V</b>	<b>+/- 40,27</b>	<b>+/- 17,23</b>	<b>+/- 11.5</b>

As it is seen from the table, the individual distinguishes intensively reduce in this age group. The results of the experiment showed that, first of all, not all the students can concentrate the attention on a definite object in a short time and, for the second, absence of bright thinking image lowered the force of concentrating on the object of attention.

**Conclusions:**

1. Analysis of the results of study of the teen-agers' attention proved the hypothesis that psychological factors of different kinds of attention differently influence on mastering by teen-agers the English language. The influence of these factors has a dynamic character and it depends on the age peculiarities of the students, their experience and other conditions.

2. The levels of attention development influence dynamically on the quality of foreign language mastering.

3. The influence on English language mastering according to the results of our research have: for pupils of the seventh form - the level of concentrating; the eighth – level of concentrating; the ninth – language visual attention.

4. Knowledge of psychological factors which influence on successful English language mastering allows finding out the conditions of educational process effectiveness, one of which as our experiment showed, is the differentiation of education in groups determined on the basis of attention, thinking, memory and observation levels development.

5. The attention and its kinds are worth investigating in a deeper analysis to provide more detailed results or to present results in more effective way.

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**УДК 159.9: 81`23**

## **СПЕЦИФІКА МІЖМОДАЛЬНОГО ПЕРЕНОСУ В ПЕРЦЕПЦІЇ НОСІЇВ БЛИЗЬКОСПОРІДНЕНИХ МОВ**

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*Статтю присвячено дослідженню міжмодального переносу в перцепції носіїв української та російської мови на матеріалі псевдослів. Встановлено спільне і відмінне в синестетичних реакціях на кольорові та нюхові стимули. Констатовано залежність між приписуванням стимулу ознаки «приємний» чи «неприємний» та подальшими характеристиками означуваного слова.*

**Ключові слова:** синестезія, міжмодальний перенос, псевдослово, білінгвізм.

*Статья посвящена исследованию межмодального переноса в перцепции носителей украинского и русского языка на материале псевдослов. Установлено общее и отличное в синестетических реакциях на цветовые и обонятельные стимулы. Констатирована зависимость между приписыванием стимулу признака «приятный» или «неприятный» и последующими характеристиками обозначаемого слова.*

**Ключевые слова:** синестезия, межмодальний перенос, псевдослова, билингвизм.