

# Means of Visualization in Teaching Ukrainian as a Foreign Language to Modern Students with Clip Way of Thinking

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## Summary

Acceleration of the pace of life, increasing the amount of information, the emergence of “clip way of thinking” as a phenomenon has led to the problem of choosing forms of presentation of educational materials to students. One of the ways to solve this problem is to use the means of visualization of information flow, forasmuch as the thinking of modern youth is more effective in perceiving visual images than verbal means. The purpose of the research is to prove the effectiveness of the use of visualization in the process of teaching Ukrainian as a foreign language to students with clip way of thinking. The following methods have been used, namely: analysis, synthesis, comparison, systematization and generalization of scientific literature; testing and surveys; pedagogical experiment; quantitative and qualitative analysis of data, interpretation and generalization of the research results. The essence of visualization means has been revealed; the expediency of their use in the methodology of teaching foreign students the Ukrainian language has been substantiated. It has been proven that the role of Ukrainian teachers lies in taking into account all new trends in teaching, integrating computer perception of information by foreign students into teaching technology and using cognitive visualization in order to intensify the learning process.

## Keywords:

*visualization, Ukrainian as a foreign language, educational activities, clip way of thinking.*

## 1. Introduction

In the modern educational space, Internet resources create a new educational reality; consequently, teaching with their use is an important aspect of modern pedagogical interaction in a higher educational institution.

A cognitive feature of the modern generation of students, important for finding effective learning tools, is that such young people try to perform several tasks simultaneously, namely: write text messages, listen to music, browse the web, etc. One of the negative consequences of this phenomenon is the difficulty in concentrating on one action. Students have got used to superficial concentrating on a large number of objects at once. However, at the same time, they cannot focus on a specific piece of information

(especially textual one), which is important for the performance of a certain both cognitive-search and educational-training task. This phenomenon is called “clip way of thinking”.

The transition to distance or mixed forms of learning caused by a pandemic and the emergence of clip way of thinking as a cognitive feature of the newest generation of students have actualized the need to conclude a new format of visual forms of presentation of educational information. In the process of teaching Ukrainian as a foreign language, the outlined forms play a specific role in creating a virtual educational, academic and social-cultural environment, involvement in which is one of the tasks of forming the communicative competence of foreign students of Ukrainian higher educational institutions. The content of educational materials, optimally perceived by modern youth, should correspond to the features of the real linguistic-didactic paradigm and contribute to the achievement of the goals and objectives of teaching Ukrainian as a foreign language.

## 2. Literature Review

In order to effectively teach young people, it is necessary to understand their motivational factors, ways of thinking, features of perception of educational material in the conditions of constant use of digital technologies and digital devices [1]. According to the observations of scientists [2-4], modern youth significantly differs from previous generations in the speed of development due to the possibility of constant but not limited time access to information via the Internet. By comparison, educational models do not have time to update so quickly. Currently, the students of the first courses of universities are the generation of young people who have been born and grown up in the rapid development of digital technologies, information and communication transformation of many areas of life. These changes are perceived by young people as everyday phenomena; it is their usual context, where they

are easily oriented and accept new formats of interaction (including pedagogical and verbal-communicative) as a matter of course. Therefore, modern students prefer virtual communications. They learn quickly and willingly through digital intermediaries, especially if they understand that certain learning tools allow them to acquire new skills. Despite the fact that knowledge gained through the Internet is usually situational in nature, representatives of the new generation are distinguished by creativity and multitasking; they value knowledge that can be immediately put into practice, and much less perceive the abstract theory; they do not like monotony, appreciate diversity; they are able to quickly switch attention, and, therefore, they are ready for a variety of work. However, setting goals for them should be clear and understandable, forasmuch as it directly affects the effectiveness of their educational work [1].

Scientists [5-9] have identified the main features of clip way of thinking, which can be systematized as follows: the ability to switch among disparate semantic fragments; inability to concentrate on homogeneous and same-type information for a long time, such as text; loss of the ability to deeply assimilate the material associated with the rapid shift of attention from object to object, while in order to establish cause-and-effect relationships, it is necessary to focus for a long time; inability to build long logical chains; the habit of receiving information in a concise, simplified form; the dominance of visual perception of data over verbal; high speed of image perception; associativity and illogical thinking; focus on less generalized concepts and pragmatics; ability to perform several tasks simultaneously; increasing the dynamism of cognitive activity; the ability to see the variety and ambiguity of approaches to the analysis or solution of certain problems; ability to quickly adapt to changing social reality.

At the beginning of the XXI century, one of the well-known experts in the field of computer technology Bolter J. has emphasized the importance and, consequently, the development of visual means of communication, especially in education, forasmuch as the combination of different means of transmitting information develops cognitive styles not only in the transmission of information, but also its perception [10]. The outlined features give us grounds to call such forms of educational materials – fragmentary means of visualization.

Based on the analysis of recent investigations in the field of philosophy of education, language standards and teaching experience, we believe that “modern linguo-didactic paradigm is characterized by pluralism with the dominance of competency, communication and intercultural approaches” [11]. According to studies of Mazuryk et al. [12] and Trubitsyna et al. [13], the following features have been highlighted that guide the process of teaching Ukrainian language to a foreign student, namely:

1) proficiency in the language of everyday communication and / or specialty as a result of the

established communicative-activity, linguistic, strategic and social-cultural competencies; adaptation of foreign students to life and learning in the Ukrainian-speaking environment;

2) creation and development of positive motivation for learning and creative abilities of foreign citizens; activation of their cognitive activity;

3) ability to plan and carry out own educational activity in the conditions of the organization of educational process according to the ECTS grading scale;

4) ability to conduct self-esteem and self-improvement, professional growth;

5) fostering respect towards the Ukrainian educational, academic and social-cultural space.

At the same time, the process of learning Ukrainian as a foreign language, aimed at achieving the above results, should be provided with fragmentary means of visualization. Visualization as a principle of learning has long been used in methodology and pedagogy. Cognitive visualization is not just a reference to the illustration of the subject of study, but also its further transformation, rethinking. The theoretical fundamentals of visualization of educational information are reflected in the works of Belousova and Zhyteneva [14], Dehtiarova [15], Izotova and Buglaeva [16], Bower et al. [17], Dobrova et al. [18], Klerkx et al. [19], Kolodii et al. [20], Ostrikova et al. [21].

The use of visual aids for all stages of learning Ukrainian as a foreign language is constantly expanding. In modern conditions, we are increasingly talking about visualization tools, which are based on the creation of various ways of processing and arranging of semantic elements. However, despite the widespread use of visual aids, their use in the language training of foreigners is insufficiently studied in the scientific literature, and the application in practice is often unsystematic and chaotic. Therefore, we propose to systematize a set of fragmentary visual aids necessary for the formation of Ukrainian-language communicative competence, which should improve the quality of teaching Ukrainian to foreign students with clip type of thinking.

### 3. Methods

The following methods have been used in the research, namely: analysis, synthesis, comparison, systematization and generalization of scientific literature in order to study the cognitive features of foreign students with clip way of thinking; testing and survey methods that have made it possible to determine the level of formation of communicative competence of foreign degree-seeking students of Ukrainian higher educational institutions; pedagogical experiment in order to test the effectiveness of the use of visualization in the process of learning Ukrainian as a foreign language; quantitative and qualitative analysis

of data, interpretation and generalization of the research results; graphic methods for visual illustration and comparison of the research results.

### 3.1 Tools

Analysis of several publications on the problems of teaching a foreign language by using visualization tools [16; 18; 22-24] has made it possible to identify the particular principles of selection. These principles are, on the one hand, the most significant for the cognitive features of young people with clip way of thinking and, on the other hand, they are used for implementation of the goals and objectives of language training. Thus, these principles are as follows: 1) the principle of goal orientation requires the use of each means of visualization associated with the need to implement language-cognitive, language-communicative, acmeological and value aspects of language training; 2) the principle of functionality will provide practical mastery of Ukrainian language with the help of any chosen means of visualization; 3) the principle of complexity involves the inclusion of linguistic and extra-linguistic information in the content of visual means, which will ensure the simultaneous formation of aspect (phonetic-orthoepic and lexical-grammatical) skills and the development of different types of speech activity; 4) the principle of system quantization makes it possible to present knowledge in a compressed compact form.

Guided by the above-mentioned principles, we have chosen the following visualization tools for teaching Ukrainian language to the current generation of foreign students with clip way of thinking, namely: infographics, word clouds, mental maps, memes, wimmelbooks.

### 3.2 Procedure

In order to test the effectiveness of the use of visualization tools in teaching Ukrainian as a foreign language, we have selected experimental (EG) and control (CG) groups of foreign students at the following Ukrainian universities, namely: V. N. Karazin Kharkiv National University, Vinnytsia National Technical University, Zaporizhia State Medical University, Kharkiv National Automobile and Highway University, Sumy National Agrarian University. The total number of participants (in the experimental and control groups) was 168 people who voluntarily agreed to participate and received full information about the research. The survey was conducted anonymously using Google-form; the data of the research participants were protected.

The communicative-cognitive method was used to teach students of CG (mastering the Ukrainian language through observation of language phenomena, training formation of language skills and speech skills,

implementation of the established communicative competence in speech interaction) and text basis. Communicative-activity method was used to teach students of EG (mastering the Ukrainian language in communicative interaction with a non-verbal purpose) and visual basis.

Visualization tools were used at all stages of teaching Ukrainian language to foreign students of experimental groups, namely: during the presentation and explanation of new material; during repetition; during consolidation of knowledge; during control and systematization; for homework activities; in individual work of students. In order to verify the results of the use of visual aids, we have compared the academic achievements of foreign students in mastering Ukrainian language during the final control in the summer session of the 2020-2021 academic year. The formation of aspectual language skills was verified by using tests. The skills of monologue and dialogical speech were tested by a communicative task with visual aid, namely: infographics, meme, wimmelbook. That is, the formation of productive expression skills, but not reproductive ones were controlled.

## 4. Results

In order to conduct an experiment of teaching Ukrainian language to foreign students with clip way of thinking, the following means were chosen, namely: infographics, word clouds, mental maps, memes, wimmelbooks (see Figure 1).

It is important to note that the visual aids chosen by us for teaching Ukrainian as a foreign language to the modern generation of students with clip way of thinking meet the requirements of the competence-based, communicative-activity and linguo-cultural approaches, prevailing in modern methodology of teaching foreign languages.

Experimental learning has shown that in order to train productive speaking, the teacher only needs to offer students a number of language models, comment on the options for their use and explain the intentions connected with these models. Observing the learning process, we have revealed that the most common intentions are as follows: 1) to describe the observations; 2) to express disagreement / doubt; 3) to prove an opinion. The chosen means of visualization have really encouraged students to communicative interaction. In the educational process of students, the visual channel is activated; a communicative intention arises, which is embodied in replicas. As we can see, a foreign language teacher can organize productive speech training with a minimum of resources. Foreign students study actively, communicate enthusiastically, help each other, and listen carefully to their communication partners; consequently, the teacher only manages the learning activities.

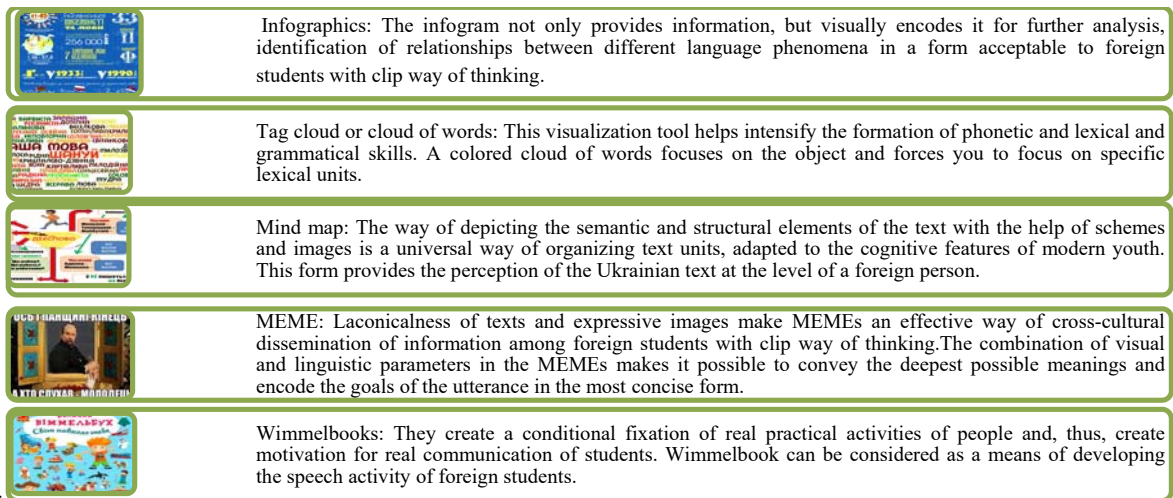


Fig. 1. Visual aids for teaching Ukrainian to foreign students.

The results of the control stage of the experiment have testified to the following level of formation of students' foreign language speaking skills (see Figure 2):

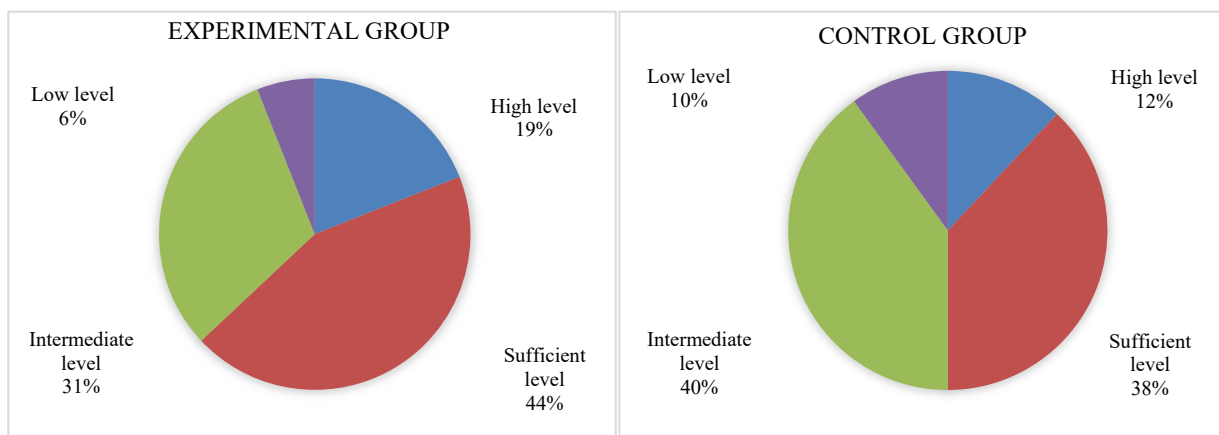


Fig. 2. The results of an experiment on the use of visual aids in the course of study of Ukrainian language by foreign students.

Therefore, the analysis of the data shown in Figure 2 indicates that more positive results have been obtained in the experimental subgroup on the formation of foreign language speaking skills compared to the control subgroup. This gives grounds to believe that the experimental work confirmed the hypothesis on the effectiveness of the use of selected visual aids in order to enhance the foreign language speech activity of foreign students in the process of learning the Ukrainian language.

The essence of the communicative approach to learning foreign languages constitutes the basis of work with visualization tools. That is, this is not just creating conditions in which students are invited to act, but directly motivating them to work in the proposed conditions. The

acquisition of a foreign language is carried out primarily in its communicative function, that is, in the process of communicative interaction with a non-linguistic purpose.

The application of word clouds in foreign language classes is one of the means to increase interest in learning. This makes it possible for students to better master oral speech, increases the level of language and speech training, and promotes the formation and improvement of lexical skills. Technically simple implementation and free use of the application provides great opportunities for the dissemination of this type of knowledge visualization tools.

## 5. Discussion

The properties of clip way of thinking were used during conducting the research; they were generalized by a number of scientists [1; 5-9]. Herewith, we have not analyzed the advantages and disadvantages of cognitive features of modern students with clip way of thinking, forasmuch as such an assessment will not help find appropriate pedagogical strategies, but will take the properties of clip-thinking as a certainty. This has made it possible to choose the teaching aids that are most acceptable to the newest generation of students. The global nature of the virtual pedagogical environment levels out nationally-marked cognitive-gnostical features. Therefore, clip way of thinking at the initial stage of the studying this phenomenon is considered universal. After all, we have proceeded from the fact that this type of thinking is inherent in all foreign students of the new generation, regardless of nationality. We believe that when choosing the most effective methods of teaching Ukrainian as a foreign language, it is necessary to focus on the following specifics of foreign students with clip way of thinking in the perception and assimilation of educational content, namely: the need for a concise, schematic and visualized form of educational information; focusing on the pragmatic potential of educational materials; dynamism of cognitive activity, which consists in the need to change the types of insignificant "portions of knowledge".

When creating visual aids for teaching Ukrainian as a foreign language, we took into account the recommendation of Semenovskikh concerning changing the content of the initial material and the format of its presentation, taking into account the cognitive and psychological characteristics of modern youth [6]. These changes involve the structuring of linguistic and linguistic-cultural materials in the form of small visual fragments; the use of bright, clear visual aids with clear and imaginative visual codes. The use of the created visual aids - infographics, word clouds, mind maps, memes, wimmelbooks - confirmed the conclusion of Erdniev P. and Erdniev B. that "the greatest strength of mastering the program material is achieved when educational information is presented simultaneously in the form of four codes: pictorial, numerical, symbolic, verbal" [25]. The results of the conducted research have showed the importance of taking into account the characteristics of the current generation of students in order to determine the effectiveness of visual learning tools and increase the dynamism of cognitive learning.

The obtained conclusions indicate that the selected types of visualization tools and created visual aids for teaching Ukrainian as a foreign language contribute to the formation of aspectual language skills and the development of speech skills as the basis of communicative competence of foreign students. It has been proven that the implementation of visualization tools in the educational

process has a positive effect on the formation of cognitive interests, foreign language speaking skills; it promotes conscious learning of Ukrainian language. This also contributes to the development of qualities such as independence, initiative, tolerance, empathy, etc.

At the same time, we agree with Ostrikovala et al., that any form of visualization of language materials should contain elements of problem [21]. The teacher's task is to use such forms of visualization that will not only complement the verbal / textual information, but also will be the carriers of information. We believe that the more problems in the visual aid are, the higher the degree of speech activity of the student is. In our viewpoint, such a significant role of these tools is due to the fact that the visualization created with the help of Internet resources has acquired new qualities, to which we attribute as follows: interactivity, as a result of which there has been a significant transition of initiative in teaching from a teacher to a student; dynamism, which has become potentially inherent even in static images; rapid expansion, which led to the possibility of displaying an increasingly fractional structure of connections, step-by-step detailing of the object or part of it, the sequence of procedures that precede the result, etc.

## 6. Conclusions

Clip way of thinking of modern students determines the perception of language materials in small fragments; it is multichannel in the way of perception. Experimental training has revealed that the visualization of educational information makes it possible to solve a number of pedagogical tasks, namely: ensuring the intensification of training; intensification of educational and cognitive activities; formation and development of critical and visual thinking; figurative representation of knowledge and learning activities; knowledge transfer and pattern recognition; raising visual culture, etc. It is believed that visual means absorb the entire amount of knowledge about the object, summarize and synthesize it. In contrast to verbal information, visual information is presented holistically and simultaneously, without requiring for its perception of extension in time. Such consolidation of information in temporal and volumetric dimensions makes it possible to intensify the learning process by visualizing educational information in contrast to the linear presentation of educational material. It should be noted that the nonlinear arrangement of educational material promotes better learning of educational material, forasmuch as educational components of such tools as individual visual fragments can be combined into one unit. Thus, visual means of language training can be considered as the most acceptable form.

Information visualization tools play a special role, namely: they familiarize students studying a foreign language with the world of a foreign language culture and

language, as its component, presenting a message in an already processed, “compressed” form, and simultaneously act as a visual stimulus for communication.

The practical significance of the research lies in the possibility of using the proposed means of visualization (infographics, word clouds, mental maps, memes, and wimmelbooks) in the study of foreign languages by international students.

Prospects for further research lie in studying the effectiveness of the use of visualization tools in distance learning.

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