

**Khalabuzar O., Phd,  
Berdiansk State Pedagogical University;  
Usoltceva K., Master,  
Berdiansk State Pedagogical University**

## **INTERACTIVE TECHNOLOGIES AND LOGICAL-CREATIVE THINKING.**

The reform of the education system of Ukraine, connected with the global integration into the European educational space, the introduction of a person-oriented, humanistic paradigm, the implementation of distant professional training, leads to an increase in the requirements for the professional thinking of future teachers. Modern teacher's personality must be characterized by the independence, flexibility, reflexivity, creativity, systematicity, criticality, openness, etc., which will make it possible to successfully solve both life and professional tasks, create favorable conditions for learning, education, comprehensive harmonious development of students in accordance with today's demands, which must be guaranteed during the processes of distant learning. Certain aspects of this problem were considered by V. G. Ivanov, N. B. Lavrentiev, A. K. Markova, S. E. Matushkina, N. G. Morozova, V. D. Semenov, M. I. Tsvetkov, G. I. Shchukin and others, who believe, that modern teacher encounters a large amount of information that needs to be carefully sorted and then applied. Computer technologies have become part of

everyday educational activities, focused on a significant part of the independence of even the youngest participants in the process of mastering new knowledge of the English language. This situation caused the search for interactive technologies, effective online educational programs.

This could be realized with the help of modern interactive technologies of education, providing formation of professional-pedagogical competence of the future teachers and their ability to implement computer-based technologies of education during the online/offline educational processes. Within modern conditions the teacher's thinking has to be based on the basis of the logical culture which has tremendous importance. The successful solution of the complicated tasks depends on the pedagogue, his or her personal qualities, erudition etc. The profession of the teacher demands the constant creativity and culture's improvement, constant logical thinking. Thus, the fundamentals on Logics are very important because they are necessary for the process of the choosing materials, texts' analyzing, making decisions. A. Hetmanova states that the conscious mastering logical skills helps to develop the creative thinking, to develop the argumentation of the teacher, to increase the productivity and effectiveness of the pedagogical activity during the work with the samples of the texts. During the lessons which deal with the "text work" we can explain students the existence of different kinds of knowledge: theoretical knowledge, knowledge-methods, knowledge-values. The theoretical knowledge provide students with the needed logical skills and operations. The knowledge-methods deal with the issues of the planning and organization of the studying activity, with the opportunities of collecting information. The knowledge-values provide the mastering norms of the professional principles, rules, professional culture of the future specialist. A. Hetmanova and I. Ivin state that all these knowledge could be formed during the work with the sample of the text. According to our point of view, the implementation of the fantasy fiction is really effective during the lessons of English lesson. The modern fantasy fiction is very important and interesting for the young people due to its creative, mysterious worlds, which were created by the talented authors.

The samples of the fantasy literature are full of the elements of the mysterious events, supernatural creatures and mystics, are rich in stylistic, artistic means. So within the content of the distant training of future specialists the work with the fantasy fiction's samples gives the wide variety of opportunities for the upbringing logical culture of the linguists.

So as the aim of our research we can state the determination of the logical skills which could be taught at linguistic disciplines with the help of the samples of the modern literature. The fantasy fiction is one of the most popular mass literature genres. Its infernal images, bright landscapes and strong characters are very interesting for the new generations. Thus many foreign researchers study the significance of the implementation of the fantasy fiction's samples during the formation of the personal qualities (E. Bjork, Y. Praise, E. Burkhead, V. Sommers, etc). Our national scientists also underline the importance of the

work with the fantasy books (S. Loginova, B. Nevskiy, M. Parfenov, M. Ivanov) during the professional training of future linguists. Thus, we have to reorganize our everyday pedagogical activity for the improvement of the quality of the students' training at high educational establishments, considering modern interactive technologies.

During our research we have worked with the fantasy fiction's samples from books which were written by foreign authors (R. Tolkien, J. Rowling, U. Le Guin, K. Holdstock etc) and from books, which were created by national writers (V. Arenev, M. Kidruk, N. Savchuk, D. Korniy, Y. Katorozh, etc). The conducted research proved that the logical laws, which were formulated by Aristotel, could be explained on the material of the literature lessons. Students are able to increase their ability to think rationally, to maintain the correctness and adequacy of the mental activity, to find the truth, to analyze the material.

A. Hetmanova states that the logical laws have to be taught because they help students to reflect certain connection of the subjects of the material world (Semichenko 2004). O. Kuzina determine the logical laws as the certain logical form which guarantees the truth of each content. During the lesson we have given students the samples of the texts with the small instruction which was presented on the interactive board.

1. Read the sample from the book "The Ash from the Dragon's Bones", written by V. Arenev.

2. State the main idea of the sample.

3. Write two arguments (for and against) on this statement.

4. Discuss these arguments with your group-mates.

5. Remember that within one statement each thought has to be clear, unchangeable and proved by strong arguments.

Students have shown their active cognitive position due to the organized educational process and given detailed instructions. During the lesson it was also underlined that the violation of the logical laws takes place when we change the subject of the discussion, when we use one term instead of the needed one without the warning for the opponents.

Logical skills give students the needed opportunity to think critically, to state the connection between thoughts and samples of the given information, to prove the truth. Also it should be mentioned the importance of the choice and implementation of the literature content which would be used for the forming of the students' logical skills within the context of the professional training. The creation of various projects, modeling problem situations for the discussions are very useful and effective. Within such condition students have opportunities to reveal their strength, to make complicated decisions and to discuss the consequences, to strengthen their own reflexive position, to analyze the results of their activity.

The students worked in small groups (diads). They looked for the arguments, composed questions and proved their point of view. Another form of the work - the binary lecture was used during the work on the sample from the

book “The Return of the Witch” which was written by V. Klimchuk. Two students prepared the material and successfully led the lecture, involving other students with the help of the on-line materials.

Especially interesting for the students was the quest which was devoted to the creative work of modern Ukrainian authors – Marina and Sergey Dyachenko.

Due to the prepared tasks on the development of the logical skills, students increased their ability to analyze, to compare, to find the main idea and to state.

The quest based on the book “The Witch” took place out-of-doors, in the museum, park zone and art gallery. This provided the students’ creativity, mobility of their logical thinking.

Another exercise was based on the abstract from the book “Bot” which was written by M. Kidruck, students had to read the sample, to underline and explain the bright stylistic devices and to state the thesis, arguments and to argue with the opponent. Also they had to keep in mind that each argument has to be strong and logically proved. This task is able to develop the critical thinking, confidence and ability to lead the discussion. It teaches to work with the given information, to make the conclusion, to think critically, to state own thoughts and decisions.

Each lesson included theoretical material on the basis logical knowledge and operations which were presented due to the creation of the conditions which were appropriate to the process of forming logical thinking. Also, non-standard lessons provide the positive atmosphere of the students’ cooperation. For example, conversations, discussions, brain-rings and brain-storms, reports and conferences. Thus, during the work on the sample of “The Lord of the Rings”, “Hobbit” written by R. Tolkien, we suggested students to prepare the small video-files and during the they represented different aspects of the author’s biography, factors which influenced on the his style.

The organization of the class work in the auditorium also has rather significant role. Thus, on the lesson which was devoted to the work with the creative work of R. Tolkien, we have placed desks and chairs on circle, trying to represent the discussion of the main characters in the Middle Earth. It has to be mentioned that this provided the positive emotional atmosphere of the lesson. Students freely led the discussions, took part in role-playing, analyzed the samples.

Thus the actualization of the logical knowledge has to be the interactive process which is characterized by the combination of its components, by the harmony of these determined components.

There is one sample of the work with the abstract of the fantasy fiction:

1. Choose the card.
2. Make the prediction about the sample. Imagine what will it be about.
3. Write down 2-3 sentences, using the new vocabulary.
4. Write down the small essay using the Present Simple, Present Perfect Continuous.
5. Read the sample. Translate it.
6. State the main idea and analyze it.

7. Tell if you have been in such situation. Explain your feelings and actions.

These cognitive steps obviously avoid the reproductive thinking. According to this instruction we make students to think independently, creatively and critically, to give examples from their lives, to make decisions and conclusions, to make predictions and to analyze them.

Working with different projects students have to prove, to defend their ideas and thoughts independently. This guarantees the forming of their confidence and responsibility during the time of argumentation. The students' activity has to be correct and correspondent to the main rules of the argumentation. As we know the argumentation which is directed on the proof of the certain statement, consists of thesis which has to be proved with the help of the arguments. Thus, we have to state the connection between the arguments and facts. Students have to find independently the facts which could be used as the arguments. (statements which can prove or deny).

In the process of solving the problem, students establish, discover, find out the links between the basis and judgments. The process of argumentation leads to the discovery of activity, the logic of thinking, the independence of a higher level, since the nature of activity in obtaining excerpts and substantiating knowledge is included in the system of evidence, although the facts themselves are not provided, and they should be attracted independently to obtain only the necessary arguments. Facts are the basis of arguments, and the correct use of them depends on the ability of students to see the essence of the phenomena, correctly use the derivative titles.

Objectives to prove necessarily contain knowledge of facts, but they are not limited to them, but require the ability to make the necessary conclusions and critical attitude to the findings. The significance of learning the evidence of judgments in the learning process is quite significant. The authors of many works not only on logic, but also on the methodology of teaching certain disciplines quite rightly point out that the evidence should not only characterize the story and explanation of the teacher, but also the answers of those who study. If the proof is not copying judgments, the system of evidence of the elder, but the result of an independent search, which is possible when using problematic issues and tasks in the process of identifying knowledge, then evidence is an indicator of the culture of logical thinking.

Questions and tasks for proving can only require the collection of actual factual material and its logical location in such a way as to provide a coherent proof. Others require not so much the selection of actual material, but logically smooth use of own conclusions regarding the subject of evidence. Others require a synthesis of several conclusions for the proof of the thesis, which prompts the discovery of high-level activity. Consequently, one of the indicators of the formation of a culture of logical thinking is the proof of thinking. The task of proving when studying literature can be used at all stages of its study. They can be used:

1) when studying the biography of the writer to prove the significance of the writer's life and creative ways in the socio-political life of his era and for educating the reader. Possible, for example, is the following question:

- Why do we call the life of T. Shevchenko heroic?

2) in establishing the connection of literary works with the socio-political life of his era. Example:

- Describe the social stratification of those times on the material of "Shagreen skin" by O. Balzac.

3) when revealing the ideological idea of the work, the features and the role of the heroes. For example, the following may be typical of implementing such a goal:

- The content of the poem "The Word of the Regiment Igor" - the call of the princes to unity before the invasion of the Mongols. Prove this position.

- To prove that "Faust" of Goethe is filled with the spirit of that time.

When substantiating the belongings of an artistic work to a certain direction, conformity to a certain genre. As an example, characterizing the achievement of the stated goal, one can come up with such a task;

- Prove that the work of E. By "Kruk" - is romantic.

- Prove that the work of Joan K. Rowling "Harry Potter" is artistic (fantasy)

- Prove that in the Kafka novel "Transformation" the landscape is subject to the discovery of the work of an ideological plan.

Systematic involvement of evidence in the process of forming a culture of logical thinking activates the process of assimilating logical knowledge, affects the development of students, inducing them to identify activity and autonomy in a concrete form - the decision of cognitive tasks to prove.

The highest level of cognitive activity, oriented to mastering the culture of logical thinking, is characterized by the creative activity of students, aimed at establishing and disclosing the essence of the problem, for which it is worth recognizing: a) the significance of those concepts whose essence must be established; b) to formulate a provision that needs to be substantiated (at the previous level it is given in the finished form) to select the actual material for the confirmation of the arguments (the nature of the activity, as well as in the decision of the tasks of the second level). Favorable conditions for the formation of the culture of students' logical thinking arise in classes on literature, history, language, social science, when the teacher, sending students to certain texts, documents and facts, suggests to analyze them and ask questions, the answers to which would reveal the essence of the leading phenomena. You can invite students to hold a "Binary Lesson", which is a continuation and development of problematic presentation of the material in the dialogue of two lecturers. It is necessary to simulate situations of discussion of theoretical and practical issues by two "specialists", who at the end of the lecture should analyze their own activities and give them an assessment. The advantages of such a lecture are updating the acquired knowledge, creating a problem situation, deploying the

system of proof, consolidating the ability to conduct a discussion, highlight the main thing, generalize.

Students show great interest during the task of building an associative chain, when they have to write their own string of associations on the provided board.

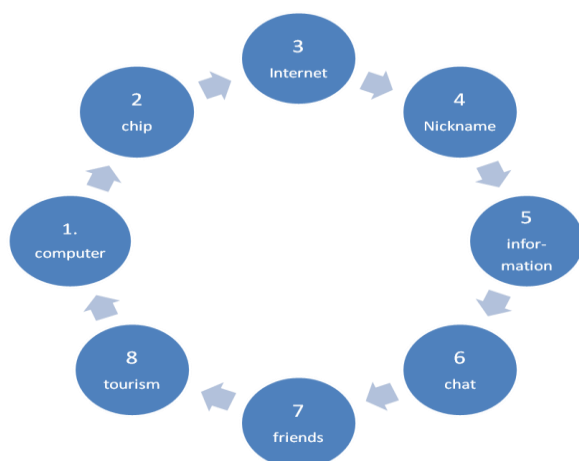
The task is performed within 1–2 minutes on specially designed cards, which are of great importance for activating students' attention and aims to mobilize, activate students' vocabulary and creative, logical thinking.

In addition, after completing the circle of associations, students must make sentences with the words obtained as a result of completing the task (1+8), (2+6), (3+7). The atmosphere at the class should be positive, relaxed. Students will show interest, they will get special pleasure when composing sentences, in which words from different fields of use should be involved.

*Computer + Tourism = Tourism is like traveling in the computer network.*

*Chip+Chat = Talking in the chat, I feel myself like the smallest chip in the world of nicknames.*

*Internet + Friends = You can find many friends in the Internet Internet*



With the aim of creating positive motivation, a more comfortable feeling of well-being of students, we give preference to tasks that were related to visually. The students were interested in the games offered by the teacher.

To consolidate the logical-creative thinking, tasks of increased complexity could be offered, for example: “Search for the maximum amount of information.” Students were offered a phrase of 7–10 words and the task of finding as much information as possible, putting forward hypotheses. At the same time, the information should be divided into: unambiguous - 100%; probable, when nothing can be asserted; doubtful. After completing the tasks, it must be determined who discovered more information and who correctly divided it into the three specified groups.

Example:

*Shannon met the artist Sheldon at an award ceremony for him (Hogarth).*

Unequivocal information:

1. *Shannon* and *Sheldon* lived at the same time
2. *Sheldon* was nominated for the award.

Probable information:

1. *Shannon* has something to do with the ceremony
2. *Sheldon* received an award.

Questionable information:

1. *Shannon* is also an artist
2. The ceremony was dedicated only to *Sheldon*

To complete the tasks, the student has to turn to the establishment of causes and effects, that is, turn to the information that preceded the task.

The task “Restoration of a complete plot (sentence) based on a few words” is aimed at developing the ability to create a whole based on a minimum of information, that is, to reveal cause-and-effect relationships. Students are asked to come up with three or four words and make as many story options as possible using those words. Example:

Ukraine, democracy, society:

1. The Ukrainian state seeks a democratic society
2. Ukrainian democracy is a feature of our society
3. Democracy and society are the main values of Ukraine
4. Society should be built on democracy.

It is appropriate to widely use the method of composing a story by reproduction, or to offer students to continue a passage of the text. Students’ work performed for a specific purpose should be evaluated by their peers according to the following parameters:

- definition of the main;
- originality of presentation;
- logical sequence of presentation;
- the unusualness of the plot;
- completeness of the story;
- self-analysis of the work done.

During the work on tasks with the theoretical logical content we have made the stress on the necessity to develop logical skills of logical and creative thinking during the distant work.

During work in a remote format (provided that interactive technologies are used), teachers will note an increase in the level of independence and activity of students’ cognitive activity. Among the positive consequences of the proposed use of interactive technologies, the following were identified: teachers’ rejection of established, traditional forms of students’ educational work; encouraging them to increase responsibility and independence; the formation of logical skills necessary for further cognitive activity (the ability to analyze, synthesize, compare, establish cause-and-effect relationships, find the main point, review, discuss, prove, etc.). This is the padlet which was created by students☺)





In conversations and interviews, students emphasized the improvement of relationships in groups, a favorable emotional and intellectual background in classes, and an increase in the authority of the teacher. everyone who took part in the experiment showed a desire and willingness to continue studying in this form of education.

## References

1. B. Carry, Ch. Hardaway, J. Warshawsky «Why business people speak like idiots». *Business Idiots*. LLC, 2005. 116 p.
2. Robert Kent «Commission’s finding». «*New York Times*». January 13, 2005. P. 19–21.
3. Ya. Bondarenko Cross-cultural aspects of teaching Communications: listening aspect. Materials of the International scientific-methodical conference «Karazin Readings: Methodology and Linguistics. On the Way to Integration». Kharkov: V.N. Karazin Kharkov National University, 2007. P. 27–29.
4. A. Goldin. The motivation for studying English in communication in the distance learning system for students-economists. *Materials of the VI International Conference “Karazin Readings: Man. Tongue. Communication”*. Kharkov: V.N. Karazin Kharkov National University, 2007. P. 88–90.
5. G. Ter-Sahakyants, O. Kraskovskaya. The use of role-playing game. *Methods of intensive teaching of foreign languages*. Kyiv, 1986. P. 194–205.
6. Khalabuzar O. A. Theory And Practice Of Translation For Teachers Within Modern Society/ [textbook]. Scholars’ Press, Tallin, Estonia. 2022. 436p.  
[https://www.morebooks.shop/gb/bookprice\\_offer\\_f2b9cec6c8fef2a1e0a7b94893388bc9df186034](https://www.morebooks.shop/gb/bookprice_offer_f2b9cec6c8fef2a1e0a7b94893388bc9df186034).
7. Khalabuzar O. Formation of students’ educational independence during cognitive activities. *Naukovi zapysky Berdianskoho derzhavnoho pedahohichnoho universytetu*. Seria: Pedahohichni nauky. Scientific papers of Berdiansk State Pedagogical University. Series: Pedagogical sciences: zb. nauk.

prats. BDPU, p. 391–397. 2022. (DOI 10.31494/2412-9208-2022-1-1-391-397).

8. Formation of Students' Logical Thinking within the Multicultural Educational Society Oksana Khalabuzar, Olena Kondratieva, Maria Chykil, Tetiana Nikishyna. URL: <http://dx.doi.org/10.7596/taksad.v8i3.2199>, <http://kutaksam.karabuk.edu.tr/index.php/ilk/article/view/2199>