American Education Sphere as a Space of Rational Critical Thinking

ABSTRACT

One of the priority directions of the modern education process is developing of secondary and higher schools students’ critical thinking. Modern society tendencies such as constantly expanding informational space, skyrocketing role of the communicative processes and increasing amount of information form challenge of developing students’ critical thinking for the linguistic and communicative practices.

**Purpose.** The purpose of this article is to analyze the role of critical thinking, to consider philosophical tradition of the critical thinking development, to find out what kinds of critical thinking development techniques providing special educational activities are used at universities.

**Methods.** The methodology of this research is the comparative analysis of different kinds of critical thinking and philosophical systematization of its functions according to the specific value of critical thinking. The functional approaches to realize interdependence of critical thinking and communicative competence, the significance of the philosophical tradition of developing of the critical thinking for the linguistic and communicative practices of critical thinking are implemented in this article. The American tradition of differentiating content presentation, possible interpretations and self-assessment in the analysis of texts is systematized. The analytical method is used to find out the significance of different kinds of critical thinking development methodical techniques, provided special educational communicative activities at universities, such as: reasoning, argumentation, dialogues, debates and others.
**Results.** Considering the importance of argumentation, its skills are taught as in high schools as well as in the US universities. Today teachers require from their students to generate and defend their views, to learn the ability of thinking independently, to formulate their own opinions with responsibility and to defend their position argumentatively. Not least in these requirements occupy argumentative communicative abilities as a way to explain and defend their arguments and critical thinking, which is one of the tools to analyze perceived information. Means of argumentation and critical thinking are improving while the whole students’ training period with the help of such means as dialogue and discussion methods in classes.

**Keywords:** critical thinking; development of critical thinking; education sphere; educational society; educational activities; values; education process; universities.

**Introduction**

One of the priority directions of the modern education process in Europe is developing of secondary and higher schools students’ critical thinking. Modern society tendencies such as constantly expanding informational space, skyrocketing role of the communicative processes and increasing amount of information sharpen this challenge. All these facts are reflected in social sphere and particularly in education according to Brazilian educator Paulo Freire (Freyre, 2003), who stated that education is an institution which allows a person to develop his/her practical attitude to reality, to interfere to his/her context of reality and to integrate to it (Rizhak, 2009, p. 28). Thus, under the general social progress conditions, education requires modern approaches as well. Because of shifting educational priorities from quantity of obtained information to the abilities of operating and using it in the real life, the vital importance of critical thinking is constantly increasing (Boychenko, 2015; Horokhov & Horokhova, 2015; Horokhova, 2014; Horokhova, 2015).

Critical thinking serves as an information filter. Analyzing information a person checks, compares, analyzes and refers it constantly to personal experience, values, ideals and preferences. Personal opinion individually created, logically argumented is a result of intellectual activity. Stimulating critical thinking gives an opportunity to determine truth or falseness of a certain
idea and to identify the individual attitude to it. A person, not controlled by outside forces, can individually control informational situation and adequately assess the reality. A critical thinker can be in informational whirlwind without any fear and encourage desire for self-determination due to his/her ability of making his/her own conclusions.

Thus, critical thinking is not only referred to informational society, but it is a mean of its development as well. It prepares people for successful agency in the informational society, preventing them meanwhile from the potential information stresses.

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**Methodology.** The methodology of this research is the comparative analysis of different kinds of critical thinking and philosophical systematization of its functions according to the specific value of critical thinking. The functional approaches to realize interdependence of critical thinking and communicative competence, the significance of the philosophical tradition of developing of the critical thinking for the linguistic and communicative practices of critical thinking are implemented in this article. The American tradition of differentiating content presentation, possible interpretations and self-assessment in the analysis of texts is systematized. The analytical method is used to find out the significance of different kinds of critical thinking development methodical techniques, provided special educational communicative activities at universities, such as: reasoning, argumentation, dialogues, debates and others.

**Critical thinking as a social process**

First, it is improvement of generating person’s knowledge. In this case, the purpose of the educational institutions is not only providing the young people with a certain set of knowledge but also developing the skills to search knowledge, creating skills to analyze different aspects of a problem or different opinions. Educational methods are said to be based on critical thinking, teach people to think independently instead of being a container of other people’s
knowledge. This conclusion is not a complete negation of the necessity of keeping information in mind. However, memorizing doesn’t achieve the aim, which is the basis for modern education that is creating every individual development and self-realization conditions, building up a generation, which is capable for a life-long education, implementing the values of civil society. Only the individual cognitive activity, analysis and synthesis, reanalyzing of obtained knowledge approximate educational methods and educational purpose to each other to some extent.

Second, due to critical thinking the person becomes a subject of education, an active participant of discussing any educational work. It is achieved due to the ability of arguing and using critical approach as well- which means “healthy” untrusting to any information in accordance with intention to check its truthfulness and to determine own attitude to contradictory data. Encouraging the usage of critical thinking during the studying process needs the personal traits such as: the ability to overview human own positions if they do not withstand criticism; the ability to notice mistakes or artificial distortion in partners’ argumentation and other sources of information; the ability to assess social phenomena, the deeds of social and political leaders, the individuals from the point of human moral position; the ability to recognize propaganda; the ability to demonstrate reasonable portion of doubts, skepticism, the desire to seek optimal decisions, actions in specific situations; courage, adherence to principles, having courage in confirming own positions, views; opening to other views, position, respect for their diversity are developed. These features not only provide successful process of studying but also become powerful tools for personal career making (Dewey, 2013).

So, critical thinking is considered to be social. The more democratic and independent the society can be, the more developed criticism can be. Critical thinking is one of the means of problem – solving and a set of skills and abilities following from the philosophical consciousness. Features of critical thinking are based on ability to ask questions correctly and answer them at once. That’s why American education focuses on teachers’ questions and students answering during their lectures and seminars.

Identifying critical thinking considers its independence and at the same time emphasizes its social parameters. Critical thinking appeared in every
member of society apart, the person is attracted to the process not only in finding the answers but in the process of formation the knowledge in general. Criticism is a tool for mastering, acquiring new knowledge and stimulating the identification of new priority theories that go beyond generally formed views, the implementation of alternative and rational ways of problems’ decision (evidence, refutation and hypothesis). Critical thinking is based on the formation of moral and social responsibility, objectivity of judgment, struggling to find the truth. Critically thinker can adapt quickly to a certain conditions of life in a democratic society, because it is always necessary to take choice and make responsible decisions.

Thus, critical thinking can be taught. We can define the following features of critical thinking: developing true decisions strategies, based on obtaining, analyzing, processing the information; reflexive actions (analytical, checking, controlling, evaluating) which are in the process of thinking; meticulous analysis of the different views and opinions, expression of the individual position, evaluating of the own agency and the activities of others, making an objective decision.

“Critical thinking” in the English-American logical and philosophical tradition

Thus, critical thinking can be defined as a thinking which helps us to take considerable, meaningful decisions as for believes and plans of action. The components of critical thinking include curiosity, skepticism, reflection, rationality. In the English-American logical and philosophical tradition “critical thinking” means, first of all, a large education course for teaching the skills of constructing and evaluating arguments and critical thinking of the person, in his/her turn, must pay attention to the views, decisions which should be clearly justified (Horokhova, 2015). To achieve that it is necessary to be well informed: for new hypotheses, alternative explanations, sources and conclusions; to consider the points of view that are different from your own; to broaden their all-rounds, strive for various awareness. Secondly, it is important to be able to clearly understand your position as well as other people’s position: clearly and accurately understand the sense of everything
spoken and written, taking into consideration the characteristics of situation; focus on making conclusions or issues, following the main topic; seeking and offering the arguments; taking into account the whole situation; awaring the own believes. Thirdly, it is essential to respect the thought and dignity of the opponent, that is: to be able to listen and hear others; avoid criticism, taking into account the feelings of the opponent, be susceptible and try to understand other people’s feelings, the level of knowledge and depth of judgments; to be attentive to the state of another person (Fisher, 2001, p. 171).

The importance of critical thinking installation also shows American psychologist Dian Halpern, who has developed the popular US program of training of the critical thinking. She believes that “an essential component of Critical thinking is the development of installations to think critically and be ready to do so. Critical thinking may have only those who can really think, know why they need it and those, who are ready to make all necessary efforts for regular work, reasonable actions, data collecting and showing certain persistence when the solution is not evident or when some multiple steps are needed. Focusing on Critical thinking is not less important than the development of thinking skills” (Halpern, 2003, p. 15). Halpern describes the following trays of critical thinker which you can master studying at higher educational institutions:

1. Readiness to plan (as an “invisible and very important step to critical thinking” consistent consideration of steps).
2. Flexibility (as “willingness to consider new options, try to do something different, change your point of view”).
3. Persistence (as “willingness to solve a task that requires intension brainstorm”).
4. Willingness to correct his/her mistakes (as a intension of seeking the reasons of own mistakes, the ability to “recognize own strategies and actions ineffective and reject them, choosing new and improving human thinking”).
5. Awareness (as a reflection of human thinking process, “observating the actions in moving to the goal”).
6. Search for compromise solutions (the ability to “seek solutions that would satisfy the majority”). (Halpern, 2003, pp. 15–16).
Reflective component occupies a special place in the system of described settings of critical thinking. To improve thinking quality critical thinker can realize his/her own thinking process, possess conscious aim-fixing. Reflection as a necessary condition and inevitable part of critical thinking defines by R. Paul, Director of the Center for Critical thinking and Moral criticism in the United States: “Critical thinking – thoughts aiming to improve thinking... In this case two points are crucial: Critical thinking courses to self-improvement; and this improvement comes with the skills of using the standards of mental process correct estimating” (Paul, 1990, p. 91). The second component of critical thinking are intellectual (mental) and thinking skills, which constitute its essence.

Set of certain skills is still an “open”, it refers to ability to think critically. So every author offers the own system, the definition of “critical thinking as well”. Thus, R. Ennis identifies 12 basic skills (abilities) of critical thinking, while the concept of R. Paul reaches 35 (Paul, 1990).

We selected mental skills, which are, from our point of view, the most essential and most studied in modern concept of critical thinking: the ability to identify the problem and find the ways to solve it, collect and organize the necessary information, to identify unconfirmed assumptions and estimations; ability to interpret facts and information, to assess the evidence, identify the existence or absence of logical connections between the judgments, make legitimate conclusions and generalizations to analyze and question them, develop the model of the own system of beliefs and build up the true judgments about the everyday life phenomenon; assess the reliability of information sources; the ability to select the necessary information with further its processing; analysis and evaluation of statements, assumptions, conclusions, arguments, hypotheses, convictions; the ability to ask questions in order to obtain more accurate information or its verification; examine the problem from different points of view and comparing the different views and approaches; a clear statement of the own position accuracy while selecting the verbal means; self-making decisions and the ability to prove own choice.

You can use these skills in everyday life and at the lessons when you have already accumulated proper knowledge and experience. Critical thinking – a kind of “thinking about knowledge” that allow to “use previously acquired
knowledge to create new one” (Halpern, 2003, p. 6). The notion of word “knowledge” is used in the broadest sense. One of the components of Critical thinking description is given by the author of “Critical thinking and Learning” M. Mason: “... a certain amount of knowledge, or knowledge of basic notions which refers to critical thinking or knowledge of a scientific discipline, which critical thinking can be applied further” (Mason, 2008, p. 5). Given position is supported by R. Ennis, who states that Critical thinking, being inter-discipline and above-subject category has a deductive nature: the student masters the intellectual skills of critical thinking beyond specific scientific discipline and can applies them in different fields of knowledge. J. McPeck emphasizes on an inductive nature of critical thinking: being inseparable from specific scientific field and necessary condition of critical problem consideration of a scientific discipline that means a very deep the discipline knowledge. “We can not critically consider the nuclear physics problems not obtaining nuclear physics knowledge” – the author states (Mason, 2008, p. 3). Paying more attention to the critical and reflective method of processing information, modern higher education not only develops the cognitive and communicative students’ qualities, it performs educational function, stimulates personal building up, directs youth to self-knowledge as well. Students’ questions, which are asked to themselves should be changed from “Did you understand or not understand?” to “What is my opinion about it?”, “What is my attitude?”, “What a sort of information is this?”. This approach to dealing with data sets on the first place student’s individual, gives a priority to his/her worldview and individual differences (Denisevich, 2011, pp. 155-159).

While studying a student masters the different ways of integrating information, learns to produce an own opinion, based on comprehension the different experiences, ideas and perceptions, to modulate reasoning and logical chains of evidence, to express the ideas logically, clearly, confidently and correctly to others (Halpern, 2003, p. 5).

**Technology of critical thinking development**

Technology of teaching critical thinking methodically is a system of methods and strategies that unite methodical techniques by types of educational activity, regardless of the specific content. The base model not only sets certain logic of
the lesson structuring, but also the sequence, the ways of combining specific methodic. Technology of critical thinking development can be considered as integrating, with the achievements generalizations of many technologies: it provides and develops thinking and communicative skills, build up skills of individual work.

However, the methodical methods itself don’t be able to develop critical thinking. You need to keep a number of positions with the main to have teacher’s interest. A teacher should be ready for learning, to work hard, to refuse old schemes and approaches which had been set requiring not (or minimum) efforts.

It is necessary to break down such pedagogical stereotypes as: a student should not make mistakes; a teacher knows what and how a student should do, a teacher teaches and a student learns; a teacher should know the answers to all questions that arising in class; teacher’s question should be always answered, etc.

Critical thinking skills development does not exclude the necessity and importance of knowledge as such. But it is important to know how to apply this knowledge, to obtain the new and to update the old ones as well. The ability to work with information, to see the important and less important, to follow logic and schemes of given information that means to analyze and evaluate the received data – are the most important skills of professional in modern information technology world.

Various information strategies of processing information allow to detect problems and drawbacks in the data, which are the starting point for decision making (especially in management). The ability to formulate and clearly declare the own point of view can help to solve the problem situations quickly and effectively.

Combining the knowledge and ability to think critically gives the possibility to build up a personality, stabled to “emotional whirling” with a steady civil position and high professional qualities.

Obviously, the transition to student focus studying makes considerable difficulties to teacher, because a teacher is converted from mechanical carrier of information to the partner of the process of knowledge production. It
works with the help of equal dialogue between students and teachers, which is a sign of liberal education according to which “educated person obtain four components of humanitarian education or rational and intellectual erudition that includes wisdom, moral values, spiritual or religious values and aesthetic sense” (Elias, 2005, p. 26). Therefore, the entire educational process in the United States based on teacher and student idea exchanges without any domination of one over the other. Dialogical method resembles the Socratic method of argument (maieutike) according to which people can reach the truth due to mutual thinking answering the questions in conversation process. This method is aimed not only critical thinking building up, but student knowing themselves as well. A professional teacher should give the direction of such “searching the truth”. Dialogical method makes the student an active participant of the learning process, but not a passive receiver of information. The dialogical process itself is a condition of reflecting activity and students’ independency. Dialogical method provides the basis for discussion, the main form of American seminar studies. The participants of such discussion are not only a student and a teacher, involved on it, but all students, attending the seminar. While debating, dialogue is a way of argumentation, because the dialogue – an art of asking questions. Holding the dialogue, you should obtain good knowledge of arguing subject and skills to master the questions asked.

Dialogue is acting as a basic method of making the decision, and is needed even in simplest cases of the argumentation, accounting the arguments for and against this or that version of a decision or action. Such accounting always exists, although it often works intuitively and can not even clearly realized by participants of the dialogue. So, the argumentation is always the first while making the decision, and dialogue is used to assess and discuss the most important and actual society future decisions or actions.

Thus, during all scientific and practical activities, discussing of controversial issues, searching truth, decision making, debating on specific issues an interaction and collision of different minds and thoughts, while some person is trying to convince others in his/her truthfully or faithfully argumentation always exists. As a result, it is necessary to seek the arguments, evaluate them, analyze, as well as to put forward counterarguments against your opponents.
Thus, they based minimally on proving considerations where links are assumed initially as true or proven that in the process of argumentation necessary to find, explore and evaluate. The appealing to dialogue method will help. Given method always aims to debate which is an important factor in the building up of the subjective student beginning. The debate involves the rational element and can be bilateral, multilateral or polemical. All other forms of argumentative discourse – it is only certain types of discussions.

Another advantage of this method is a gradually modifying of a new type of relationship between teacher and student, based on the principles of pedagogical cooperation and unimposing influence on students, their values, worldviews, opinions, and building up a responsibility and high level of self-control. In scientific space due to a dialogue method a relationships between our culture and other cultures and individual attracting a diversity of modern culture are established through the personal efforts and awareness of the own experienced results, thinking and formation of critical thinking.

**Discussion and dialogue as a powerful tool for development intellectual students’ activity**

Researchers believe that discussion and dialogue can be a powerful tool for development and continuing of intellectual student activity. In teaching the purpose of the dialogue is to move the students’ thinking from their own ideas to existed and mature understandings. Shortening of teachers’ speaking to increasing students’ conversations are the features of discussion or dialogue. An important aspect of dialogue and discussion is that students should not always be directly involved to them. They can observe another students participating in the dialogue with the teacher or more acquainted peers. Given opportunities have a strong positive impact on the learning process. Students master not only the content of the education program but study from the experience. If students listen to a lecture, they get to know that the process of studying is passive through getting information from others; if they do exercises, they get to know that the process of studying includes the filling of gaps and so on. In contrast to this, discussion and dialogue are the most effective when they are not competitors. For these reasons, dialogical studying can be described as:
Collective: teachers and students solve tasks together, regardless of the group or class.

Mutual: teachers and students listen to each other, share the ideas and consider the alternative points of view.

Supporting: students formulate their ideas free, without any fear of embarrassment concerning the “wrong” answers; and they help each other to reach a common understanding.

Useful: teachers and students create their ideas independently.

Aimed: teachers plan and promote dialogue training for specific educational purposes.

Educational tasks at universities of America include more than subject content. They also pay attention to the productivity of studying, thinking and communication skills: to use the conversation intelligently, explore, evaluate and participate in discussions that are mutual, common, respectful and purposeful. But the debate is impossible without reasoning which is used in dialogue and in discourse as well.

The thesis promoted by some scientists concerns the universality of reasoning as an inevitable feature of any verbal action. Reasoning, a person shows his/her potential to linguistic personality and uses the knowledge and ideas, values and common sense, communicative skills and logical culture, epistemic and emotional states, social parameters of argumentative situation. All these show the complicated nature of argumentation as a process and explain the integral nature of the theory of argumentation.

Traditionally the priority sector of researching the argumentation until recently was the logic. The prominent American philosopher Irving Copi defines logic as “research of methods and principles, used to distinguish good (correct) argumentation and bad (wrong) one” (Copi, 1982, p. 3). In this case, it is mentioned that logic is sometimes determined as a “studying the norms of argumentation”. The argumentation is defined in logic only as additional proof, the mean of explanation incomprehensible thoughts for the audience. Philosophy and Rhetoric are referred also to the classic paradigms that develop argumentation problems. For the Rhetoric it is a tool for reaching
the consensus, method of mutual understanding with the audience. Today the argumentation relates to integral disciplines and is studied by Neorhetoric or the Theory of argumentation and the Theory of discourse analysis as well. Rhetoric and Neorhetoric (“Theory of argumentation”) are that areas in which interdisciplinary problems created: the problems of correlation between language and thinking, language structuring technique that takes into account both strategies of verbal and nonverbal behavior.

Conclusions

The significance of the philosophical tradition of developing of the critical thinking for the linguistic and communicative practices of critical thinking forming on the example of teaching analysis in contemporary US universities is revealed in this article. The American tradition of differentiating content presentation, possible interpretations and self-assessment in the analysis of texts is systematized. The significance of different kinds of critical thinking development methodical techniques, provided special educational communicative activities at universities, such as: reasoning, argumentation, dialogues, debates is analyzed in this article.

Considering the importance of argumentation, its skills are taught as in high schools as well as in the US universities. Today teachers require from their students to generate and defend their views, to learn the ability of thinking independently, to formulate their own opinions with responsibility and to defend their position argumentatively. Not least in these requirements occupy argumentative abilities as a way to explain and defend their arguments and critical thinking, which is one of the tools to analyze perceived information. Means of argumentation and critical thinking are improving while the whole students’ training period with the help of such means as dialogue and discussion methods in classes.
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