

Enhancement of Students' Independent Learning Through Their Critical Thinking Skills Development

Umit Kopzhassarova^a, Gulden Akbayeva^a, Zhanar Eskazinova^a,
Gulbarshyn Belgibayeva^a and Akerke Tazhikeyeva^a

^aAcademician Y.A. Buketov Karaganda State University, KAZAKHSTAN

ABSTRACT

The article focuses on the problem of developing students' critical thinking skills, which help them become independent learners. Analysis of research works of educators and scholars enable the authors to reveal qualities, necessary for students to enhance their critical thinking skills and become independent learners. Different points of view on the problem are given. The authors pay attention to the big role of command, team work. They consider project technology as one of its varieties, directed to improvement of learners creative and cognitive potential. The authors conclude that proper organization of independent work contributes much to development of students' critical thinking, reflective skills.

KEYWORDS

Independent learning, critical thinking, skills, university graduates, encouragement, primary conditions, convincing argument, efficiency, independence, effective thinking, substantiated conclusions

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Introduction

Evolutionary process in education, occurring at the present stage of development of the society means change of priorities from passive absorbing of knowledge to independent, creative and cognitive activity of learners, taking into account their possibilities and specific features of development.

In P.C. Schlechty's (1990) opinion, those learners who will successfully master a base course of the school (higher school) program, learn to apply the knowledge in a familiar situation will receive their diplomas, but can't manage to work with information and acquire new knowledge independently -will not be able to count on success in an information society of the 21 century.

CORRESPONDENCE Umit Kopzhassarova ✉ umit-55-hope@mail.ru

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The graduate of modern secondary and higher school, who will live and work in the future millennium in a postindustrial society should possess such qualities as:

- adapt flexibly to changing situations, independently acquiring necessary knowledge, skillfully putting it into practice for the decision of various problems;
- think independently and critically and be able to see difficulties arising in the real world and search for ways of their rational overcoming, using modern technologies and realize where and how acquired knowledge could be applied in the surrounding world, be capable to generate new ideas and think creatively;
- work competently with the information: be able to analyze, put forward hypotheses of the decision of problems, do necessary generalizations, comparisons to similar or alternative variants of consideration, give reasons and formulate conclusions and on their basis to reveal and solve new problems;
- be sociable and contact in various social groups, be able to work together in different areas, preventing conflict situations;
- work independently on development of own morals, intelligence, cultural level;
- possess internal requirement and ability to self-improvement, to reflective self-estimation (Polat, 2002).

The main part

Necessity of developing students' independent work skills is regarded as one of the essential requirements for school and university graduates. The analysis of psychological and pedagogical literature shows that almost all classical researches in pedagogy and psychology directly or indirectly raise the problem of development of students' independent work skills at all levels of educational system (Dewey, 1997; 2009; Vygotsky & Cole, 1978; Galperin, 2012; Zimnyaya, 2003; Kapterev, 1877; Komensky, 1875; Leontiev, 2000; Pidkasisty, 1972; Rubinshtein, 2000; Ushinsky, 1975)

An important motivating factor in independent learning is the encouragement of students' own interests and their desire to learn. Students will be motivated to learn if teaching is content-based and meaningful; when knowledge is useful and provides a means of achieving a desired goal. Such learning activities provide a stimulus to reflective inquiry and continuing intellectual development. In contrast, learning activities in which a student has no interest, lead to increasing dependence on external motivation and extrinsic rewards. Such approach to teaching has the effect of diminishing students initiative, rather than encouraging their participation in learning for their own sake.

Independent learning has implications for responsible decision making, as individuals are expected to analyze problems, reflect their work, make decisions and take purposeful actions. To take responsibility for their lives in times of rapid social change, students need to learn on a life-long basis. As most aspects of our daily lives are likely to undergo profound changes, independent learning will enable individuals to respond to the changing demands of work, family and society.

Teachers should train students to take charge of every stage of their own learning, which includes:

- setting goals;
- identifying and developing strategies to achieve such goals;
- developing study plans;
- reflecting on learning (which includes identifying problem areas and the means of addressing these problems);
- identifying and selecting relevant resources and support;
- assessing one's own progress (which includes defining criteria for evaluating results of learning).

One of the ways, directed to enhancement of students' creative cognitive activity, their abilities to analyze and put forward hypotheses; set problems and independently solve them is the development of learners' critical thinking skills. Among researchers, who dealt with this problem from the pedagogical and psychological points of view and treated it as a means for development of students' independent work skills were such researchers, as L. Elder & W. Paul (2008), J.A. Braus & D. Wood (1993), D. Halpern (2000), D. Cluster (2001), D. Dewey (1997).

American psychologist Richard L. Elder & W. Paul (2008) considered the notion of critical thinking as the disciplined, self-directed thinking, which illustrates thought improvements, corresponding to a particular mode or domain of thought. He also asserted that in critical reflection we use our command of thought's elements to adjust our thinking for logic requirements of type or mode of thought. If we have got used to think critically in strong sense, i.e. in the interests of other people or groups we develop special lines of thinking: intellectual humility, intellectual bravery, intellectual persistence, intellectual honesty, and trust to the reason (Elder & Paul, 2008). J.A. Braus & D. Wood (1993) determine critical thinking as intelligent reflective thinking, focusing on the decision of definite problems. Critical thinking, in their opinion is a search of common sense namely how to judge objectively and act logically, taking into account not only one's point of view, but also the other opinions and try to refuse from own beliefs.

In D. Halpern's (2000) opinion critical thinking is «the use of such cognitive skills and strategy which increase probability of reception the desirable result, when we estimate results of our thinking processes — how much correctly the decision was made or how much successfully we have coped with a task. According to her, critical thinking also includes an estimation of the thinking process — a chain of reasoning, which leads to the conclusion. D. Halpern (2000) sometimes named critical thinking as directed thinking, as it is directed on reception of desirable result.

D. Cluster (2001) pointed out that comparing critical thinking with such thinking processes, as memorizing, understanding and creative intuitive thinking is impossible. It is important to develop memory, but at the same time, memorizing is not thinking. Development of intelligence is connected not with memory operation, but with development of independent thinking. The author considers it as one of the primary conditions for critical thinking development.

Thus, in D. Cluster's (2001) opinion, one of the primary conditions of developing critical thinking is person's independent thinking skills ability. He gives five characteristics to the notion of «the critical thinking». First, the critical thinking is independent thinking. In the framework of such thinking everyone



formulates ideas, estimations and belief irrespective of others. Nobody can critically think for us, we do it only for ourselves. Hence, thinking can be critical only when it has individual character. Learners should think on their own and independently solve the complicated problems. Thus, independence is the first and, probably, major characteristic of critical thinking. Secondly, the information is a beginning, but not a final point of critical thinking. To generate complex idea, it is necessary to process mountain «raw»– the facts, ideas, texts, the given theories, concepts. Thirdly, the critical thinking begins with setting the problem; its reasoning, argumentation and solution, including decision making. All of us know that a person is very curious by nature and always aspires to know all the newest, "fresh". Curiosity is the integral property of all life. Fourthly, the critical thinking aspires to the convincing argument. Critically thinking person finds own problem's resolution and supports it with a reasonable, sound arguments. He also understands that other decisions of the same problem are possible, and tries to prove that chosen by him decision is more logical and more rational than the other. Any argument contains three basic elements. Basic element of an argument is the statement. The statement is supported by a number of arguments. Each argument, in turn, is supported with proofs. We can use endurances from the text, a personal experience and everything that is used as an argument. Critically thinking person armed with strong arguments is capable to resist to the opinion of the majority. And, at last, fifthly, the critical thinking is social thinking. When we argue, read, discuss, object and exchange opinions with other people, we specify and we deepen our own position.

American philosopher and psychologist J Dewey (2009) considered critical thinking skills development as a complicated activity, requiring decision making in the process of meaningful and content based learning. He called it 'reflective thinking' and defined it as: active, persistent, and careful consideration of a belief or supposed form of knowledge in the light of the reasoning which support it and the further conclusions to which it tends.

Results

Our analysis shows that researchers have no common approach to determination of the notion of critical thinking. However, the majority of them consider critical thinking as an individual thinking. According to our point of view – critical thinking is an individual thinking, aimed at processing, analyzing, evaluating of the information for creation and solution of new ideas and problems.

Critical thinking means the ability to continuous treat the surrounding world, find and estimate objective way of receiving information, compare and analyze various points of view, understand complexity and discrepancy of the public beliefs. In other words, critically thinking person should solve all problems independently; support these decisions with reasonable arguments.

The major indicator of critical thinking is its efficiency and independence. The effective thinking indicates capability of a person to think logically and consistently, ability to solve problems quickly and creatively, do correct comparisons, formulate substantiated conclusions, make decisions.

Thus, relying on the analyses we have done, we regard that critical thinking is developed in the process of learners' independent work on setting

problems and their solution due to their analytical, evaluative and reflective skills; their ability to reason, defend and express their view point.

Development of students' critical thinking skills, their becoming independent learners is one of the crucial problems, facing current education system. It is considered that development of students' critical thinking skills within framework of their independent work is created through the use of "command or team approach".

The command is a small group of people possessing skills of interchange ability, jointly working for implementing the common aim and bearing responsibility before each other for its accomplishment. Command work is an active process of team work in achieving joined goals and objectives (Levin, 2002; Reynolds, 1994).

The group work stimulates processes of developing new ideas. It was proved that the person of average capabilities, working in a group could increase twice his ability to solve problems. While working in a group, he is given opportunity to find problem solution in numerous ways, on the other hand one person's thought generates new ideas for others.

Besides, the group work develops sense of competition between members of the group. While the competition doesn't cause critical and hostile installations, it promotes an intensification of creative process, as each participant tries to surpass another in promotion of new ideas.

Thus, command work is one of the effective means of training critical thinkers and independent learners. It allows to develop such qualities as: independence, inquisitiveness, ability to make independent estimations.

Discussion and Conclusion

One of the varieties of "team approach", directed to the development of students' critical thinking skills, their becoming independent learners is the project technology. Project technology is widespread in the system of international education. It correlates with the content and principles of the learner-centred training, specific features of which are independent work and development of students' creative cognitive potential.

In accordance with project technology, the goal of the study and ways of its achievement should be defined by learners on the basis of their interests, individual peculiarities, requirements, motives, abilities. Therefore, content based learning, self- focused training which is a base of the project technology, assumes change of the traditional scheme teacher-pupil, subject-object interaction on the scheme of equal subject- subject partnership between a teacher and a student.

The project technology enables learners to stimulate their own cognitive activity due to the fact that they are subjects of the given activity and realize their personal potential. It creates conditions for developing learner's creative thinking, provides productive character and efficiency of educational process.

The given technology is based on the idea of interaction of learners in groups (cooperative learning) within educational process under which they take collective responsibility for the solution of educational problems and start to help each other be responsible for success of everyone.



Actualization of the collective responsibility within the project technology promotes the development of the learners' such qualities as independence and social activity, ability to cooperate in educational group and take up responsibility both for himself and for educational group, thus creating possibility for socialization of the person, development of business activity of the learner.

Project technology supposes the solution of some problem; providing, on the one hand, use of various methods, technologies and on other hand - integration of knowledge, abilities from various branches of sciences. Results of performed projects should be of real character, if it is a theoretical problem there should be its concrete decision, if practical - the concrete result, ready for realization.

In foreign language teaching, project technology is a complex kind of educational activity, it integrates various types of foreign language speech activity for the solution of certain constructive-practical, information, research, problem-solving, creative tasks.

Thus, on the one hand, the studied language is represented as a means of educational, informational, constructive and creative activity of the learner; and on the other hand in the course of creating the project, acquisition of new knowledge in the studied language takes place in various aspects of its direct use.

In the field of foreign language training we emphasize the projects which could be used in intercultural communication teaching and learning process. They are the following:

— Role play projects such as game playing, dramatization or composition of own play.

— Information and research projects (i.e. "English language and its use as a language of international dialogue", "Multiculturalism as an educational paradigm in polyethnic society", etc.).

— Survey projects i.e. "Influence of the American and British culture on a way of life of people in other countries", "The foreigners' attitude to my country", "English language use in my country, in my city".

— Production projects such as "The Portrait of my group", "Radio program", "The school bulletin board newspaper".

— Performance and organizational projects as "Organization of club meetings", "Evening party of the English language and culture", "Talk show".

— Creative works, i.e. the literary composition (a fairy tale, the story, comics, etc.), literary translation into the native language.

As it was marked, within the framework of a foreign language teaching and learning process the project work is based on interaction, cooperation, mutual aid instead of competition of learners in the process of research project activity. Interaction, consulting, mutual responsibility of the whole educational group is a basis for equal relationship among participants of the project work. Within the project technology, the role of a teacher also changes. The teacher becomes one of the members of project research group and can perform various social roles in small groups - a source of ideas, the coordinator, the adviser, the referee, etc. As a member of a project group, he joins the system of interaction, cooperation, mutual aid and takes the general responsibility for the success of project work.

Essential condition, motivating power within project work in the field of a foreign language training is setting of problems, focused on achievement of a certain final product.

The content of a project work in foreign language focuses on self significant, cognitive motivation of a learner and defined by learners themselves, taking into account their real interests and requirements.

Orientation on self significant and content based motivation of learners creates conditions for self realization of the person, provides understanding by a person of his place in the world around, estimating one's own ability and skills to predict probability of realization of the planned goals and choose proper ways of their achievement.

Project work in a foreign language "is not adhered" directly to the subject content of the curriculum on the mastery of studied language and culture. Basic orientation of project work in a foreign language is constructive research project activity with the use of the studied language. At the same time, project technology creates the situation for the mediated mastery of the program material in accordance with the project work. In the course of performing a project work in a foreign language, natural conditions for independent mastery of certain aspects of studied language and culture by learners are created.

In the process of performing project work the qualities, important for cooperation as well as development of learners' creative and critical thinking skills are: ability to take independent critical decisions, ability to empathy, interest to a problem-solving activity, general inquisitiveness, susceptibility to the new information, ability to see something in a new style, independence and an openness to new ideas, positive and optimistic attitude to any situation, ability to a reflective self-estimation.

Project technology is oriented on the concrete result - final product of project work. Learners acquire the new knowledge in the studied language and culture in the course of solution of project tasks, their performing is the condition and means of learners' research activity. Productive conducting of project work requires appropriate development of learners' language communicative skills in all types of oral and written speech. Choice of the theme and concrete problems for conducting project research work at any stage of foreign language acquisition is not limited, it is the advantage of project technology in foreign language teaching and learning process. The teacher enables learners to choose the problem according to their interests in the framework of the syllabus subject matter and in this way engages them in self significant project work.

Summing up all above mentioned, we conclude that proper and qualitative organization of students' independent work will contribute much to enhancement of their reflective and critical thinking skills, when it assumes conscious comprehension and awareness of learning material by students.

Disclosure statement

No potential conflict of interest was reported by the authors.

Notes on contributors

Umit Kopzhassarova - Academician Y.A. Buketov Karaganda State University, Karaganda, Kazakhstan.

Gulden Akbayeva - Academician Y.A. Buketov Karaganda State University, Karaganda, Kazakhstan.

Zhanar Eskazinova - Academician Y.A. Buketov Karaganda State University, Karaganda, Kazakhstan.

Gulbarshyn Belgibayeva - Academician Y.A. Buketov Karaganda State University, Karaganda, Kazakhstan.

Akerke Tazhikeyeva - Academician Y.A. Buketov Karaganda State University, Karaganda, Kazakhstan.

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