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Creative Thinking Development among Pupils During Foreign Language Teaching

Rifat R. Fakhrutdinov and Rezida A. Fakhrutdinova
Kazan Federal University, Tatarstana Str. 2, Kazan, Russia

Abstract: The study describes the theoretical-methodological and methodical aspects of pupil creative thinking development by Foreign language means. The researchers reveal the pedagogical, psychological and methodological possibilities of innovative technologies use for the development of creative thinking among pupils in the process of a foreign language study. The study presented a thorough analysis of the problem: thinking characteristics, the types and forms of mental activity among students, aimed at the creation of a new product of intellectual activity as well as Foreign research on the presented issue are revealed. The logic of the study content reveals its objectives, namely: the theoretical and methodological aspects of pupil creative thinking development are revealed; the technology conditions of creative thinking development in the process a Foreign language study are revealed and the methodological conditions for the development of creative thinking among senior pupils in the process of a Foreign language learning are also revealed. An experimental work is performed including the stating, forming and control plans, using a mix of different research methods concerning the proof of theoretical study statements. An experimental study is aimed to prove its hypothesis: the development of pupil creative thinking at the senior classes in the course of Foreign language teaching will be effective if the motivation of learning and cognitive activity among senior pupils is provided; innovative technologies of a Foreign language teaching are used based on a clear methodology algorithm implementation; a phased transition from reproductive to creative learning is realized to create an innovative product of intellectual activity taking into account the age of senior pupils. The results of the study proved the validity of the hypothesis concerning the identified criteria.

Key words: Intellectual activity, creative thinking, technology of education, Foreign language, cognitive activity, creativity, personality of a pupil

INTRODUCTION

The problem of creative thinking development among pupils is one of the major problems for the Russian school. The world today is a very fast changing system, the foundation of which is the public demand. The school graduates of schools are a new generation of minds that may influence on all areas of human life. Personality as a subject with the experience of creative activity is always at a higher level with respect to those who use standard, well-established methods. In order to make new generations to adapt to these conditions as quickly as possible, it is necessary to change the approach to the education of pupils fundamentally. A modern pupil should be able to act on his own, creating a product of his own intellectual property, approaching to each problem with interest, with the desire to solve it. All this can be achieved is through the development of creative thinking among pupils students influencing on their creativity and the motivation to constant cognition of new phenomena.

A Foreign language as an important means of communication and world cognition has a special place in the development of creativity and thinking among students. The technologies presented in the experimental part of the study is a project technology, interactive learning methods, case study method, dialogical and heuristic methods and brainstorming techniques allowed to prove the effectiveness of the work on the implementation of pedagogical conditions concerning the development of creative thinking among pupils.

MATERIALS AND METHODS

To achieve the set objectives, we used the following methods: the analysis of scientific and methodical literature, the analysis of advanced pedagogical experience, testing, questioning, observation, conversation, simulation and pedagogical experiment. The methodology by Andreev (1998) to reveal the creative potential of a person; the technique revealing the level of a person creative self-development.

Corresponding Author: Rifat R. Fakhrutdinov, Kazan Federal University, Tatarstana Str. 2, Kazan, Russia

Let's consider the multiple series of basic concept definitions. The typology of thinking is based on certain criteria which allow to see the subject classification of ideas.

There is a typology which is reduced to two mutually exclusive types of thinking, namely: creative thinking (visual one); a man thinks in concrete images (an image is a means of thinking); abstract thinking (verbal, theoretical one); a man uses verbal means (concepts, language). In this case, the development of creative thinking is opposed to the speech one.

From the perspective of Gestalt psychology, the creative (productive) thinking is based on images. For example, Arnheim (1994) defines image thinking as a "creative" way of thinking, an abstract one that is not dependent on a standard situation, which is more complete than logical thinking.

Psychologists determine another typology of thinking, according to which different kinds of thinking may develop mutually without the exclusion of each other.

Levy-Bruhl (2012) introduces the concept of "primitive thinking" which is known as "mythological" thinking now. This thinking is based on the orientation in reality. The basis of mythological thinking is mind, feelings and will, i.e., the unity of subjective and objective elements. In modern psychology, logical thinking is opposed to this type of thinking, based on the awareness of facts and the observation of causality principles.

There are other classifications and types of thinking, such as the classification according to the functions of thinking. According to Teplov (2009), the functional criterion is the type of task (correspondence of task and thinking) a theoretical or practical one. This theory claims that the theoretical and practical intellects differ radically. Practical thinking is of full value as in the situations where a quick decision is required from a person, the thinking activity is based on mind, emotions and will, in contrast to the fundamentals of theoretical thinking.

The researcher of "brainstorming" technology Osborne based his typology on the functions of creative and critical thinking. Since, the main objective of this method is the production of as many ideas as possible, we may assume that the only productive way of thinking in this case will be the creative thinking (Starikov, 2011). Singling out the theoretical research of Foreign scientists one should use the term "creativity" (creative thinking) by which the creative thinking is determined.

Before creativity was considered as the type of thinking, there was an opinion that the creative activity of a man is the result of higher intellectual activity, talent, a set of common capabilities which enable an individual to create something unique.

However, Foreign psychologists were able to prove that creative thinking is a separate type of a person mental activity, not related to his intelligence. The studies were conducted by comparing the performance of intelligence tests and the results of complex task implementation requiring from a tested person the same creativity, the ability to find a solution in a problem situation.

In particular, Thurstone (1969) suggested that creativity is the product of the ability to navigate quickly in information and use it in a constructive way by various means and the variability of which indicates the presence of developed creative thinking. Due to Thurstone studies creativity attains the importance of thinking based on the ability to create qualitatively new ideas. Such a product of intellectual activity is considered as the creative achievement of foreign psychologists.

However, Foreign scientists faced a number of challenges in the course of the problem study concerning the appearance of such features in the creative and intellectual activity. Some scientists concluded that creativity depends on human IQ while others brought opposite results. Disagreements arose because of inadequate development of creative thinking by the diagnostic method.

Foreign psychologists started to carry out tests in groups divided by the level of IQ. The study involved people with a high and average IQ and the groups with mixed values. This study brought to the following results: creativity and the level of intelligence index are related but a high rate of one testing does not involve a good result of the other one.

The psychologists E. Ogletree and V. Yulaki studied the pupils in Germany, Scotland and England. They managed to reveal that the level of creative thinking is directly dependent on a pupil's society status (an economic aspect is meant here). The highest creativity test scores were got by the students from higher strata of society, regardless of their citizenship. The students belonging to middle and lower classes showed the worst result (Ogletree, 1973). It was also found that a student creative thinking depends on the traditions and values of the country where he lives, from its culture and national mentality.

The experimental base of the study was the secondary school MOU SOSH no.1 of Vakhitovsky District in Kazan. The 10 grade students participated in the experiment (61 students): 30 of them were in the control group, 31 of them were in the pilot group.

In the course of the experimental work, we used the innovative technologies of creative thinking development such as interactive technology, project method, brainstorming, dialogical method (heuristic conversation) and the method of case studies.

In English lessons, we used the method of projects. The students of experimental group were asked to plan and perform a number of practical tasks, i.e., projects. The design technology was selected by us because it is aimed not at the solution of some exercise, namely, on the development of communication skills in the process of an active solution of a problem, not an artificial problem, which in its turn requires a creative approach from students. The efficiency of creative technology use was evaluated by us according to the following criteria:

- Time costs: one lesson was dedicated to the review of the projects prepared by students, i.e., everyone who was prepared had some time to speak
- Accessibility: the students, knowing the interests of their comrades, designed their projects in such a way to make all pay attention and remember the presented information
- Participation: taking into account the fact that some students were allowed to work together, there was noone who did not prepare a project
- Uniqueness: the final cognitive product of the students became the support for the methods effectiveness evaluation

In order to study the creative thinking of students, we also used interactive learning technology. The essence of interactive learning is that the learning process is organized in such a way that almost all learners are involved in the learning process. The use of interactive technologies during the study of English involves the organization and the development of a dialogue that leads to mutual understanding, interaction and joint solution of educational problems (Fahrutdinova, 2014). This technique was used by us when the skills of speech were developed. The experimental group received the following tasks (depending on a selected topic):

- Read the text about symbols, find the mistakes and give the right answer
- Fill in the gaps using the information you've already known about the history of halloween
- Discuss the traditions with your partners and then try to find some in the puzzle

After the performance of assignments, the students had the opportunity to discuss the topics that were chosen by the participants of other groups during the examination of exercises. After the correction and discussion of errors, students put down briefly the information about festival, presented in the presentation preliminary prepared by us. At the end of the lesson, we announce the date and time of the event and we propose the preparation of costumes and the invention of traditional games that could be organized during the event.

Another effective technology of creative thinking development among pupils is the brainstorm. The purpose of this technology use is to get rid of unnecessary critical thinking, censorship on the part of other people, the evaluation which interrupts the creative way of finding a solution at the initial stage of creative thought appearance.

During Foreign language lessons the brainstorm was performed as follows: the students are provided with a topic on which they have to meditate for a specified period of time; during the predetermined time (during the study its limit was 2-3 min per student) the whole class listens only to one student; the student speaks on a given topic as he sees fit, using the words and grammatical constructions those that he loves most.

We used this technology on the basis of the following problem: "The first man in the world". It was necessary to express their ideas about the origin of the first man on earth. They had the following task "What is you theory?". Then a student expressed his opinion. Some spoke in full sentences, explaining their theory. There is also the method of a situational analysis or a case-study method. The method of the so-called incidents is the method of confusing, unusual cases, combining educational and gaming activities. It is the component of a problem-based learning.

This is one of the ways to apply the theory in real life effectively, in dealing with the emerging problems is the decision taken in specific situations or contingency management training as well as training on the example of solving a particular situation which is case-study itself. The baseline characteristic of the concept of competence is the degree of formation of a single specialist body of knowledge, skills, abilities and experience to ensure the implementation of professional activities (Abdrafikova, 2014).

During the study, we offered students some topics not as ready information but as small challenges. This technique was used by us in practice according to the following algorithm:

- The class is divided into groups (independently)
- All groups are provided with an overall situation. Students need to analyze a situation individually and then discuss different solutions of the problem in a group and to find the most effective ones

- Common solution of each groups is listened
- The case study method is not without a critical approach so after the listing of ideas the criticism of options takes place, organized by a teacher but the students control the arguments in favor of an idea that is the final decision depends on all the participants of the discussion, not from a teacher or a separate group

Students discussed the following situation: "Imagine that you have got a pen pal from Germany. He can not speak proper English and you do not speak German at all. He is getting angry and asks you why you do not know German. What is your reaction"?

The creativity of students is manifested during a problem study in the course of its decision. Each student diagnoses the problem posed to a group by himself and then he puts his ideas and suggestions for the group review.

RESULTS AND DISCUSSION

At the final stage of the experiment, we carried out a comparative benchmarking analysis of the results by the level of student creative thinking development at the beginning and the end of an experiment.

The results of creative thinking identification at the end of the study are significantly different from the test values conducted in an experimental group at the beginning of the experiment (Fig. 1).

The rate of development increased significantly concerning the emotions of students (which is the result of competition, group work); curiosity, courage (the reduction of such factors which make a negative impact on creative thinking as conformity, fear of external and internal censorship); self-control (the development of critical thinking); independence (the desire to find his own solution concerning a problem task); activity bright imagination (the creativity in finding a way out from a difficult situation, the uniqueness of a final product concerning creative mental activity).

During the comparison of performed methodology results it can be concluded that the performance level of creativity in the experimental group rose from below average to above average and high while the control group almost did not present any changes. We performed another survey, according to which, we were able to determine the changes in the level of abilities among all participants of the experiment (Fig. 2).

The indicators in the experimental group are significantly higher (above average and high) than in the control one which proves the efficiency of the performed work.

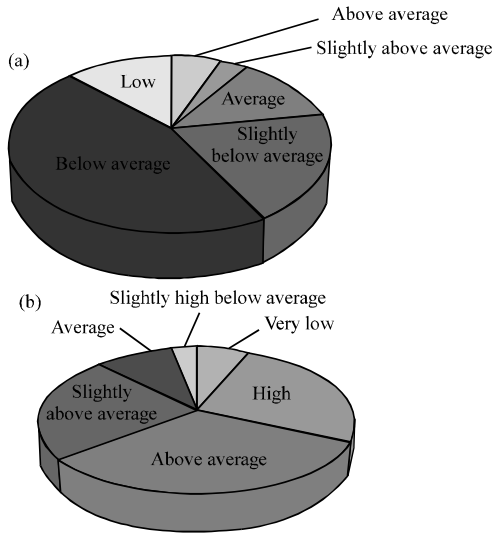

Fig. 1: Comparative analysis of an experimental study results by the level of creativity: a) the level of creativity (Эr, the star of the experiment); b) the level of creativity (Эr, the end of the experiment)

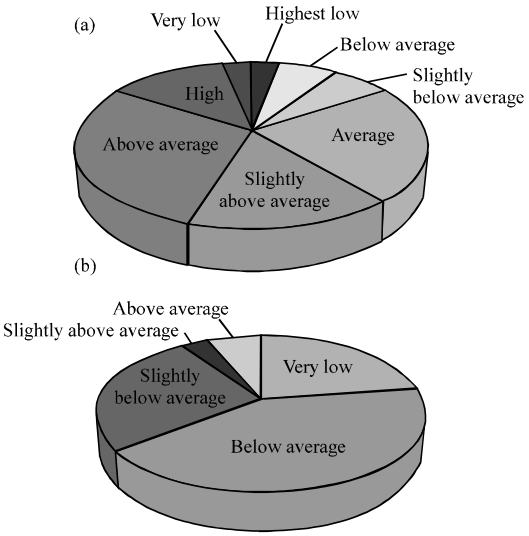

Fig. 2: The comparative analysis concerning the results of an experimental study by the level of self-development ability: a) the level of self-development abilities (Эr, the end of the experiment); b) the level of self-development abilities (Эr, the beginning of the experiment)

CONCLUSION

The result of creative thinking development among pupils was presented by the following indicators:

motivation increase concerning FL study: interesting forms of work, a healthy competition within and between groups, creative activities that meet the interests of high school students; during the preparation of projects and the study of cases, students had the opportunity (under the supervision of a teacher) to organize the debates by themselves; creativity level increase and self-realization of students: a positive dynamics is observed within the selected indicators. The results of an experimental research indicate the effectiveness of our technologies used in Foreign language learning among high school students which proves the validity of the study hypothesis.

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