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DEVELOPING INTELLIGENCE IN PRIMARY SCHOOL PUPILS IN ENGLISH LESSONS BY MEANS OF GAME TECHNOLOGIES

Intellectual development of personality is one of the most important components of any kind of human activity in the modern information society. The problem of developing the intelligence of primary school pupils is one of the leading in the New Ukrainian School, the main aim of which is the comprehensive harmonious development of pupils' personalities [1: 53]. It is important to note that the junior school age is one of the sensitive period of the development of the pupils' intellectual skills. The students try to deal with complex cognitive operations: analysis and synthesis, systematization and generalization, comparison, abstraction, classification; application of theoretical knowledge in practice in non-standard changing situations.

In this article, we are going to clarify the definition of the notion "intelligence", to consider the classification of game technologies, to highlight the potential of game technologies in the developing of the students' intellectual skills and to specify the features of the development of intelligence in primary school pupils in English lessons by means of game technologies.

The problem of developing intellectual skills was at the center of scientific research of such scientists as: L.Vygotsky, L. Zankov, J. Piaget, S. Rubinstein, etc. J. Piaget was a Swiss biologist and psychologist who developed theories of intellectual development based on his observation of children. The scientist saw intelligence as an active, constructive, and dynamic process. Through play and interaction with others in the environment, primary school students try to learn new things and understand it. There is a correlation between what they know and what they need to know. Based on this observations, the J. Piaget identified four stages of the development of intelligence in primary school pupils: sensorimotor intelligence (the first and the second year of the child's life), preoperational thinking (from 2 to 7 years), concrete operational stage or manipulation with objects (from 7 to 11 years), stage of formal operations (from 11 to 15 years). In the concrete operational stage the student will be able to express their ideas more flexibly and logically [2].

Moreover, L.Vygotsky, who was a prominent psychologist, defined intellectual skills as the products of social interactions. He used in his theory of the development a notion as "Zone of Proximal Development". It refers to tasks which the children can not solve on their own but will be able to do with guidance. Most of the approaches of the primary school are based on the theories of both J. Piaget and L.Vygotsky.

The notion "intelligence" (from Latin "intellectus" – mind, cognition, understanding) is defined in the Ukrainian modern dictionary as a level of cognitive development and an ability to think [3]. In addition, in the pedagogical encyclopedia, this notion means cognitive abilities of a person who is able to adapt in the changeable

modern world, to reflect, to understand, to analyze, to evaluate and to transform the information; furthermore, this is an ability to solve life-oriented problems and make important decisions [4].

Intellectual skill development in pupils involves the process of building different learning skills, such as attention, thinking and memory. Children at 6 years old have short attention spans. It usually lasts 15 minutes or less. Also memory is an important intellectual skill that builds a future base of knowledge and skills. The students 6 or 7 years old have short-term memory retention. Thinking includes the ability to give a reason and find the appropriate solutions. So the primary school teacher, considering the learners' individual and physiological characteristics, should help them to focus on the task and the instruction for a longer period; to improve the memory and create the problem-solving and non-standard situations.

The leading role in the development of students' intellectual skills is played by the primary school which forms the basis for the further development of primary school pupils' personalities. This requires a special organization of the educational process. So the teacher can choose the innovative methods, techniques or technologies of teaching English in the primary school. Therefore, primary school teachers should use game technologies of teaching and education, considering their advantages: an opportunity to make your own decisions; the result of the game depends on the participant of the game activity, and their intellectual skills; increasing of the level of students' motivation; gaining the useful experience in modeling the situation and predicting its consequences; the development of the ability to control actions and focus on it; the formation of the pupils' observation skills, etc. In the process of playing, children try to overcome difficulties, to set tasks and solve them independently.

It is interesting to know that game technologies are one of the oldest pedagogical technologies of teaching. The word "technology" comes from the Greek word: "techne" – art, skill, ability and "logos" – science, law. The technology effectively combines different methods, techniques, modes of operation, algorithms of action, it is closely related to equipment, tools, materials and resources. I. Dychkivska understands the concept of "game technologies" as a game form of interaction between the teacher and students, which is aimed at developing the ability to solve difficult problems based on the competent choice of alternatives through the implementation of a particular plot [5].

Psychological and pedagogical research offers a variety of classifications of games according to their principles. Thus, according to G. Selevko, games are divided into the following groups: by type of activity: intellectual, physical, social and psychological; according to the psychological process: cognitive, developmental, educational, training, creative, productive, reproductive, communicative, etc; according to game methods: role games, simulation and dramatization games [6]. According to V. Shakhray, a well-known Ukrainian theorist and practitioner of gaming, the best classification of games is the classification of E. Dobrynska and V. Shashina, who propose to distinguish games by the opportunities they form and train (creative, intellectual, physical). These scientists have identified game teaching methods [7].

There are some examples of different intellectual or brain games which the primary school teacher can use in the English classroom.

Name of the game: "Magic boxes".

Objectives: to improve logical thinking, planning and long-term attention.

Grade: 3-4.

Materials: flashcards with the picture of different fruits or vegetables and numbers.

Modes of interactions: individual or pair-work, competition.

Modes of control: points, stickers for the right choice.

Instruction: choose the image that is appropriate for the given condition.

For example: If the banana is in box number 2 choose the orange, otherwise choose the apple. If the onions are in box number 5 choose the potatoes, otherwise choose the cucumbers.

Name of the game: "Solve a problem".

Objectives: to improve problem-solving intellectual skills, critical-thinking and ability to express the opinion and prove it.

Grade: 3-4.

Materials: a set of cards with different problem-oriented tasks.

Instruction: answer the following questions and give a reason, ask 1-2 questions if you need.

Modes of interactions: a pair or group discussion, competition.

Modes of control: points, prizes, chocolate medals, etc.

For example: 1. Where can you find cities without buildings, forests without trees and seas without water? (In an atlas) 2. Some months have 30 and some 31 days. How many have 28 days? (All of them) 3. Jane's mother has three daughters. One is named Helen and another Martha. What's the name of the third sister? (Jane)

The primary school teacher can choose different topics for this type of game. It depends on the level of students' proficiency, back-ground knowledge and their interests. However the teacher can use in the English classroom different memory games, mind puzzles, picture puzzles or rebus puzzles; riddles, quizzes, language associations, crosswords as a tool of the development of the pupils' intellectual skills.

Thus, in this article we clarified the definition of the notion "intelligence" as an ability to think and solve the problems in the non-standard situations; considered the classification of game technologies, highlighted the potential of game technologies in the developing of the students' intellectual skills and specified the features of the development of intelligence in primary school pupils in English lessons by means of game technologies.

Game technologies combine a set of methods and techniques aimed at solving certain problem situations, applying theoretical knowledge in practice. It is not only entertainment, but also an effective method of interaction with students in order to successfully achieve goals and develop their intelligence.

Further scientific research will be focused on the development of intelligence in primary school pupils in English lessons by means of ICT technologies.

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