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The Importance Of Applying “Multi-Intelligence Theory” To The Educational Process

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ABSTRACT

The importance of assessment in the educational process and international assessment systems were discussed. There is also information on the dependence of a child's educational opportunities on genetic factors and upbringing. In this regard, it is recommended to use Gardner's "theory of multiplicity of intelligence" to make the most of the child's potential. The article presents a map of the “multi-intelligence theory” of intellect and comments on the relationship of types of intellect to the cerebral hemispheres. A "Child Intelligence Diagram" is also recommended for practice.

KEYWORDS

Evaluation, research, monitoring, comparison, degree, genetics, trait, organism, development, activity, need, motive, goal, intellect, intelligence map, diagram.

INTRODUCTION

Assessment is the process of measuring the level of achievement of learning objectives at a particular stage of the learning process based on predetermined criteria, identifying and analyzing the results. The results of the

assessment are summarized, the activities of the educational community in the field of education, the general level of mastery of students are assessed and appropriate conclusions are drawn. It is determined how

well the requirements of the state educational standards are met. Assessment can examine the entire education system and its components at the same time. The assessment identifies not only the strengths and weaknesses of the learner, but also the weaknesses of the learning process.

International rating systems programs

PISA (Program for International Student Assessment)

PISA research is monitoring, which allows to identify and compare changes in the education system of different countries, to assess the effectiveness of strategic decisions in the field of education. PISA compares (monitors) the quality of education in schools in the following four areas: reading literacy, mathematical literacy, science literacy, and computer literacy.

- The evaluation will be led by the Australian Pedagogical Research Council (ACER) with the active participation of the Netherlands (CITO), the United States (ETS), Japan (NIER) and other prominent organizations.

PIRLS (Progress in international Reading Literacy Study)

- International Text Reading and Comprehension Survey - allows you to compare the level of reading and comprehension of students in the primary grades in different countries around the world and to distinguish between national education systems.

It was established under the auspices of the International Association for the Evaluation of Educational Achievements. Chestnut Hill College (Massachusetts, USA) is responsible for organizing international research.

PIRLS studies assess two types of reading:

- Study in order to gain aesthetic reading experience;
- Reading for the purpose of assimilation and use of information.

TIMSS (Trends in Mathematics and Science Study).

- A program organized by the International Association for the Evaluation of Educational Achievements.

This study will allow 4th and 8th grade students in primary schools around the world to compare the level and quality of education provided in mathematics and science, as well as to identify differences in national education systems. The survey is conducted every 4 years and allows students to monitor changes in their knowledge of mathematics and science as they move from 4th grade to 8th grade.

It is attended by many professional and research centers around the world.

The relationship between children's bodies and the development of "creative thinking" skills.

Determining what a child's educational opportunities depend on is directly related to solving an important problem, such as how and what can be taught. Most modern psychologists believe that the human psyche and behavior are largely genetic, meaning that

they are passed down through the generations. At the same time, there is no denying that education plays an important role in the expression and development of genetic traits. The development of a child's organism is the transition of a growing organism to the next level. This transition depends not only on the maturity of the organism, but also on what the child has learned. The key is which of these processes is important. According to L.S. Vygotsky's theory, the human psyche and behavior are the result of the effects of both processes. They begin at birth and are closely linked to the development of the baby's body.

These processes are characterized by the following concepts:

- Activity - is the process of interaction of the subject with the outside world, which allows him to meet their needs. It will be goal-oriented.
- Need - a feeling of need for things that are outside the individual, but necessary for the normal life and development of the individual;
- Motive - a form of manifestation of a need, a reason that motivates a person to do something. It motivates man to set a goal for himself;

Goal - the expected result of the activity;

Action - goal-oriented activity.

Goals and aspirations are related to motivation. To do this, one must stop, focus on a particular problem, and think. All it takes is time, energy and attention. This is called the "will to create."

It is a good thing to stop and think about a problem, a new solution, the value of a new

idea, and the creative potential of human thinking, which creates new motivation.

One of the basic concepts of the psychological theory of child development is "The driving force of development."

This power is created by the needs of the child's body, that is, internal opportunities and stimuli created for internal motivation and education.

If external factors are consistent with the internal motivation of the child, they reinforce each other, and this is the most optimal condition for the development of the child's organism. Otherwise, the child's development will not be as expected.

The development of children's bodies is directly related to age. In psychology, there are concepts of psychological age and physical age:

- The number of days, months and years that have elapsed since the birth of the physical child;
- The psychological age indicates the level of psychological development of the child in the past.

In general, they may also be incompatible. If the development of a child's body coincides with the transition from one physical age to another, from one psychological age to another, it will be marked by significant changes in appearance.

During the transition period, children are usually restless (closed), irritable, and can often cause discomfort to adults around them. This small period, when the child's psyche changes dramatically, is called a "Crisis." This

indicates that the child is undergoing significant changes in his or her body and mind, and that he or she is experiencing some problems in his or her normal physical and mental development.

- Social status of development - external social conditions;
- Leading activity;
- Crisis;
- A new qualitative change.

The passage of this crisis shows that the child's body has taken a step forward in its development, that the child has reached the next psychological age and has risen to the next level, and that a new qualitative change has taken place in development. **It should be noted that the development of the child's body is closely linked with the process of his education.**

"Leading activity" is defined as the activity that causes a major psychological change in a child's personality during a particular period of development.

The type of "leading activity" changes from one age to the next. **In this case, in the child's activity, "the goal becomes the motive", "the motive moves to the goal".**

RESULTS

The division of life into periods is the systematization of human development from birth to death. Each period is characterized by universality, as well as the criteria necessary for an objective assessment of a person. The essence of this method is not only to identify the main force that will ensure its development in each period, but also to identify effective methods of education.

D. B. Elkonin used the following four criteria to characterize each period.

Age development period	Leading activity
Childhood Preschool age (3 to 6 years old)	Role-playing games.
Small school age (7 to 10 years old) Grades 1-4	Intellectual and direct learning activities.
Adolescence Adolescence (11 to 15 years) Grades 5-9	Striving to communicate with peers. Trying to assimilate existing relationships in society.
Adolescence (16 to 18 years old) Grades 10-11	Getting an education, trying to get a job.
Youth (19 to 30 years old) University	Work, to realize one's full potential.

The development of science increases the need for talented specialists in various

Crisis period	New quality change
6-7 years old. Influence of internal experiences on behavior.	The formation of the child's full relationship with society.
10-11 years old - the onset of adulthood.	The emergence of self-image as an adult, the need for social recognition, and the pursuit of it.
15-16 years old - the formation of self-determination, self-awareness.	The ability to understand one's individuality, to be a unique person is formed.
Circumstances associated with the end of adolescence and early adulthood. Transition from parental independence.	Identify your values and plans for the future
Make changes to your 30-year-old life plan.	Creating a life strategy. Reaching a new level of intellectual development.

The development of science increases the need for talented specialists in various fields. Given that this trend will deepen in the future, it is not difficult to understand that identifying the areas in which students are talented from an early age will become one of the most pressing issues in education.

In this regard, it is appropriate to introduce G. Gardner's "theory of multiple intellects" into education. In 1983, the American psychologist G. Howard (Howard Gardner) wrote his book "The structure of the mind. In his book, "The Theory of Multiple Intelligence", he argued that human

beings have different intellectual abilities, not just one. In his view, the intellect of a child who can easily solve logical problems is not higher than that of a child who cannot solve this problem. Because this child has a different type of intelligence than the first child. For example, he can play a musical instrument very well. **According to Gardner, the intellect is a tool in the human brain that allows us to use different forms of thinking.**

The seven types of intelligence allocated by him are equally powerful, independent of each other, and function as independent systems.

1. **Verbal-linguistic intellect.** It is the ability to use speech orally and in writing. With this type of intelligence, children quickly memorize poems, learn foreign languages quickly, and become strong speakers.

They can be writers, journalists, translators, language teachers, speakers, lawyers.

2. **Mathematical-logical intellect.** It is a demonstration of logical thinking and the ability to compare data. People with this kind of intelligence love mathematical accuracy and calculation, methods of analysis, and the ability to determine the relationships between them. They like to solve logical problems, puzzles, scientific experiments. They choose professions related to science - mathematicians, physicists, astronomers, engineers, programmers.

3. **Musical intellect.** It's the ability to play a variety of musical instruments. These intelligent children have the ability to hear the clarity, pitch, and timbre of sound. They love musical instruments and start learning music before their peers.

They are future composers, musicians, singers, artists.

4. **Spatial vision intelligence.** They will be able to convert data into visible images and move them imaginatively in three-dimensional space. They have a good sense of color, shape, line and size. They have a very good visual memory. They can easily find their way and what is on the map. They are artists, sculptors, architects, chess players and other creative people.

5. **Physical - kinesthetic intelligence.** It is the ability to use all parts of the body to solve a problem. These include body movement

control, agility, balance, coordination in space, and the use of objects around. Such intelligent children are active, play sports and dance, and enjoy active games. They will be athletes, dancers, fighters and so on.

6. **Interpersonal intelligence.** It's about knowing people's feelings, their moods, their actions. Such intelligent children are very alert, quick to communicate with others, empathetic, helpful, considerate of others, and have good emotional control. They will be good leaders, public figures, teachers, doctors, psychologists, volunteers and rescuers.

7. **The intellect of the inner person.** It's the ability to know how you feel. Such intelligence is necessary for self-realization, development, and self-realization in the universe and with other people. Such intelligent children are "introverts" who strive for self-improvement from an early age, are disciplined, able to control their behavior, can see their strengths and weaknesses, and have a clear goal.

They can be psychologists, teachers, historians, doctors and so on. **Gardner later added two more intellects.**

8. **Natural intelligence.** It is man's ability to interact with nature, its value and its impact on the world around him. Such intelligent children love animals and plants.

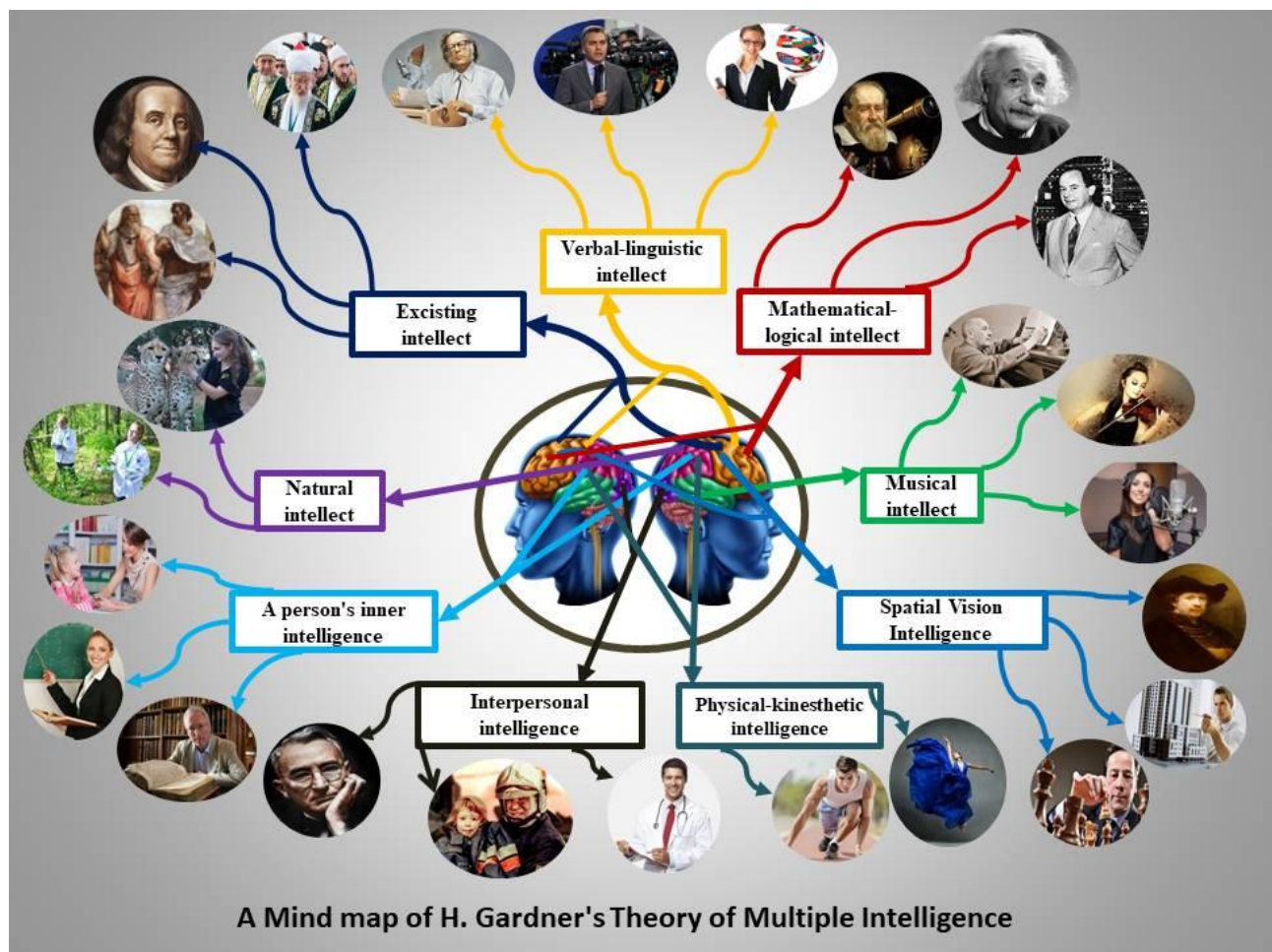
They are the future ecologists, naturalists, zoologists.

9. **The intellect of existence.** It is the acceptance of the world through religion, philosophy and meditation (compromise). This intelligence is usually acquired by children raised in religious families.

They will be philosophers, journalists, public figures and religious people.

The following is a "mind map" of the "multiple intelligence" theory. [10-12] A mind map helps to understand the essence of an idea as a means of

visualizing information and developing "creative thinking." [13-18] Attempts have also been made to visualize the dependence of intelligence on the cerebral hemispheres. This is the first attempt to show that intelligence is related to the cerebral hemispheres, a complex process that could be further clarified in the future.



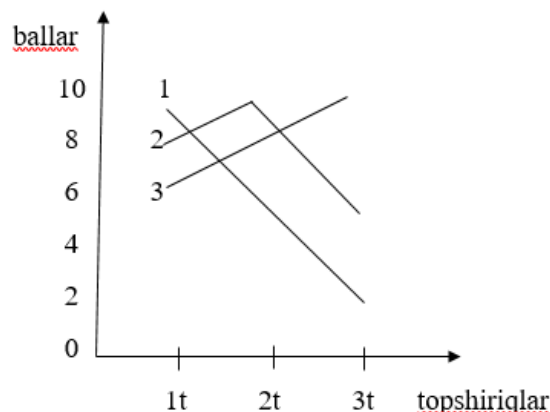
However:

- All kinds of intelligence are interconnected and can be developed. The development of one of them leads to the development of the other. Usually children have two or three intellects;
- The type of intelligence allows you to choose what form of education to develop the abilities of the student. Choosing the right method will increase the effectiveness of education several times, and in turn will ensure that the child reads with enthusiasm;
- Poor grades in school are not the result of low intelligence, but the result of a lack of education. Because these assessments may be based on non-child intelligence. If he develops his own intellect, he will be able to achieve in the future no less than a child who studied at this school with excellent grades. Because every student is smart in a certain area.

Diagram.

- It is the basis for making relevant changes in the educational process;
- What kind of directions to give children based on their intellectual abilities;
- Crisis-age indicators of children are kept for analysis.

Diagram to determine the type of intelligence of the child.



Students' list

- 1) Full name
- 2) Full name
- 3) Full name

The abscissa is the number of the task, and the ordinate is the score. Depending on which task the child has the highest performance, the type of intelligence is determined.

For example, Task 1 - "verbal-linguistic" intelligence;

Task 2 - mathematical logic intelligence;

Task 3 - musical intelligence;

Task 4 - Spatial vision intelligence

Task 5 - physical kinesthetic intelligence;

Task 6 - interpersonal intelligence;

Task 7 - the intellect of the person's inner feelings;

Task 8 - natural intelligence;

Task 9 - Existence intelligence.

An analysis of child development lessons shows that after the 11-year-old crisis, she has a sense of self-determination, a sense of identity. So this age is the most favorable period to determine the type of intellect in him. To convince him of this, it is advisable to continue this study and compare his performance before the 16-year-old crisis.

CONCLUSION

- The article provides information about the importance of evaluation systems, international evaluation systems.
- Although the genetic code plays an important role in the formation of human intelligence, the use of innovative teaching methods can improve students' skills and improve their memory dozens of times.
- Although the structure of the human brain is the same, the channels of movement that open the neurons that carry information are different.
- "Development will increase the need for talented professionals in various fields." This requires identifying the areas in which students are talented from an early age. To this end, it is advisable to introduce G. Gardner's "theory of multiple intellects" into education.
- One of the modern ways to develop creative thinking skills is "Mind Map". H. Gardner's "Multi-Intelligence Theory," which is being published for the first time, is

visually depicted on a mind map to help us understand its essence.

- In order to identify the types of intelligence of students and to recommend the appropriate type of education, it is recommended to conduct such a test in the post-crisis period of 11-year-olds.

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