

MODERN METHODS OF DIAGNOSING MENTAL DEVELOPMENT IN CHILDREN

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Abstract:

The article presents information on modern approaches to diagnosing mental development. Also, issues such as modern methods and approaches to diagnosing mental development, problems and relevance of early study of the level of mental development of children, theoretical foundations of diagnosing mental development of children are discussed.

Keywords. Mental development, talent, ability, mental development, intellect, mental growth.

Introduction

The inconsistency of the statistical approach and quantitative assessment became increasingly obvious as the special education system developed, especially in recent decades, when special educational institutions began to be created for children with speech development deficiencies, and later with mild mental retardation (mental retardation). At the same time, despite the increased differentiation of the education system and the complication of requirements for diagnostics and selection of children, the diagnostic system remained at the level of the 1930s, namely, at the intuitive-empirical level, which is characterized by: arbitrary selection of methods, the absence of quantitative and clear qualitative indicators, the predominance of intuitive interpretation of results, the absence of any principles of a unified theoretical or even simply generalized understanding of the diagnostic process. Until recently, the process of developmental diagnostics has not been analyzed in essence. This applies to differential diagnostics to the greatest extent. In textbooks on psychological and pedagogical diagnostics, this stage is not singled out at all, although it is mentioned in the general part of the manuals. Diagnostics is considered immediately in sections: "Mental retardation"

(or "Intellectual deficiency", here it is not the name that is important, but the essence of the matter), "Hearing impairment", "Speech development deficiencies", etc. At the same time, it remains unclear how a child falls into one or another diagnosed category, which of the specialists participating in the comprehensive examination determines this and in what order all this happens, what exactly needs to be clarified for this. It is unclear which methods should be used in complex and contradictory cases, and which diagnostic tasks do not provide anything for solving differential diagnostic problems.

A number of studies are being conducted in the world to develop strategies for improving the process of developing children's thinking activity and design methodologies for its implementation. In this regard, special attention is paid to the organization of educational processes aimed at developing children's thinking activity, and the formation of goal-oriented basic competencies, taking into account the age and psychophysiological characteristics of preschool educational organizations and schoolchildren, is of great importance. Such an approach requires the introduction of effective forms and methods of developing children's thinking activity based on the requirements of the individual-oriented education strategy, expanding the scope of innovative activities of teachers, and giving priority to the development of their professional competence. In our country, great attention is paid to the issues of raising a harmonious generation, and the issue of children and their upbringing has been elevated to the level of a priority direction of state policy. In the republic, special attention is paid to improving the methodological support of the preschool education system and the intellectual development of preschool children based on innovative approaches.

Diagnostics of mental development occupies an important place in psychological research. This process involves the analysis and assessment of a person's mental abilities, as well as basic mental processes such as thinking, memory, and perception. Psychological diagnostic methods allow us to accurately determine the different levels of mental activity and the individual characteristics of its development. In this direction, Richard J. Haier conducts extensive analyses in his work "A Psychophysiological Approach to Mental Performance". His research shows that the level of mental development is associated with the activity of certain parts of the brain, and this activity can be accurately measured using psychodiagnostic metrics [1.56]. Haier emphasizes the need to use modern psychological diagnostic tools, such as neuroimaging, in assessing mental

development. This method provides a deeper understanding of how the brain works and, thus, helps teachers and parents to more accurately determine the mental needs of children.

In addition to standard diagnostic tests, analytical tools are also used to provide more in-depth information about mental processes.

Modern measuring instruments are widely used in scientific research and in practical fields. They collect a variety of data, which creates the basis for scientific discoveries and technological innovations. In the field of psychology and education, these tools are used, in particular, to assess mental and personal competencies. In this regard, the scientist Linda S. Gottfredson, in her work “Modern Methods for Measuring Intellectual Competencies”, emphasizes the effectiveness of tests conducted using modern psychometric instruments [2]. In her opinion, these tools allow us to accurately and reliably measure individual mental potential and learning ability.

Studies have shown that the results of tests conducted using modern measuring instruments play an important role in improving the quality of education. For example, electronic testing systems and computer-based measuring tools help make the educational process more interactive and effective. At the same time, these systems allow teachers to quickly and accurately assess the level of knowledge of students, which allows for further individualization of the educational process.

In addition, modern diagnostic tools, including virtual reality simulations and interactive games, are also widely used in psychological research. They allow for a deeper understanding of the psychological and emotional state of children, which determines how they can be most effectively used in the educational process.

These scientific discussions and examples clearly demonstrate the importance of modern psychological measuring tools in scientific and practical fields. They are a decisive factor in improving the quality of education and a deeper understanding of the processes of mental development.

Integrated approaches that combine cognitive, emotional, and social components are becoming increasingly popular in the fields of psychology and pedagogy. These approaches help to understand and manage the various psychological changes necessary to support the full development of the individual. Howard Gardner, in his research on the “Theory of Multiple Intelligences”, emphasizes

that each person has several types of mental abilities [3.24]. According to him, the cognitive, emotional, and social abilities of each person are interconnected and a comprehensive approach should be used to develop them.

These comprehensive approaches are used in educational institutions, as well as in the corporate and public sectors. For example, in schools, along with the development of students' cognitive potential, work is also carried out on their emotional well-being and social adaptability. Such approaches ensure that students feel good about themselves and participate effectively in collective activities.

The concept of cognitive development describes how a person develops their mental abilities throughout their life. This process includes the ability to take in new information, analyze it, and solve problems. Psychologist Jean Piaget provided a broad understanding of the stages of mental development. According to his theory, each person acquires a certain set of mental operations and concepts at different times in their life, which determines their overall level of mental development.

The technologies used in modern psychological diagnostic processes play an important role in increasing the reliability of research results and making the diagnostic process more efficient. These technologies create new opportunities for assessing the mental and emotional states of individuals. John M. Davis in his work "Technology and Psychological Diagnosis" extensively discusses the advantages of modern technologies. He notes: "Modern diagnostic technologies, such as online tests and mobile applications, allow for rapid collection and analysis of results, which increases the efficiency of research" [4.120]. According to Davis, the data obtained using electronic diagnostic tools are more reliable and faster than traditional methods, helping to better understand the abilities and needs of students. For example, online tests provide reliable results in measuring personality traits and mental abilities, as well as saving time and simplifying the diagnostic process. Such an approach is useful not only for researchers, but also for practitioners, creating new opportunities for identifying and solving problems. Statistical and psychometric methods are one of the main methods used in the diagnostic process, in the collection and analysis of data in psychological research. These methods are important for the correct interpretation of the results obtained and for drawing clear scientific conclusions.

Tests used to assess mental development allow for a precise and systematic measurement of a person's mental abilities. These tests are aimed at measuring important components of cognitive processes, in particular, such as thinking, logical reasoning, memory and attention.

The reliability of mental development tests depends on their administration and analysis of their results. On the one hand, tests should be used in different social and cultural settings, and on the other hand, the results should be evaluated under the same conditions.

In addition, to ensure the reliability of tests, it is important to constantly update them and revise them based on the results of new scientific research. Modern tests for assessing mental development should also be improved using psychometric methods and statistical analysis. Thus, tests used to assess mental development should not only be reliable, but also modern and relevant.

In general, tests used to assess mental development allow for a precise and systematic measurement of a person's mental abilities. The reliability of the tests is a prerequisite for the successful implementation of the diagnostic process. These tests are an effective tool in assessing mental development, and their results play an important role in optimizing educational and upbringing processes.

Determining the level of mental development is an important factor in assessing the cognitive abilities of a person. Measurement criteria are designed to accurately and objectively determine the level of mental development of children and adults. Measurement criteria used in assessing mental development are mainly aimed at measuring cognitive functions, including logical thinking, memory, attention, and problem-solving skills. In addition, the criteria that determine the level of mental development are necessary to fully reflect the psychological potential of a person.

In general, measurement criteria that determine the level of mental development are an important tool in assessing the mental abilities of a person, and their accuracy and reliability are a prerequisite for success in educational and upbringing processes.

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