

THE CONCEPT OF THE PISA INTERNATIONAL ASSESSMENT STUDY AND THE SCIENTIFIC AND CRITICAL ASPECTS OF THE TASKS USED IN IT

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Abstract

As we know, the purpose of the PISA international assessment study is for the countries participating in the study to have an overview of the national education system during the three-year cycle, the effectiveness of the educational reforms carried out over the three-year period, it consists in researching the state of preparation of students for the requirements of society. In the assessment research, not the state of acquisition of evidence-based knowledge of students, but the current state of formation of basic competencies in them is studied.

Keywords: Cycle, national education system, expert, cognitive, basic competence, object of research, opinion, coherence.

INTRODUCTION

The latest scientific-research works on pedagogy show that the increase in the number of countries participating in the international evaluation research, the expansion of the scope of the study shows that the tasks used in the educational process have consistency with the introduction of tasks similar to the research tasks. The wide application of tasks similar to the tasks used in the PISA international assessment research into the educational process and thereby forming the basic competencies of students is considered one of the educational strategies of the countries participating in the assessment research, and several scientific studies are being conducted on the tasks.

The educational policy, educational processes, educational and regulatory documents, and the content of education of the countries that have achieved high results in the PISA international assessment study have begun to be thoroughly studied by other countries. In particular, the research results of Singapore, Hong Kong, Canada, Finland, and Japan are becoming the research object of many pedagogical studies.

In turn, the tasks of the international assessment research started the tradition of "task development" in the participating countries. The concept of "assignment tradition" means the purposeful and appropriate use of assignments in the educational session.

A number of scientific and practical studies on PISA international assessment research have considered a number of critical aspects of assessment research. Including the absence of a quality control mechanism in evaluation research, late publication of evaluation research results, limited late public disclosure of evaluation research assignments, errors related to translation, leading to fundamental changes in national public education standards by participating countries. and its consequences, the social sciences, music, and physical education, etc.

Pedagogical scientists point out that the concept of PISA international assessment research does not reflect the mechanism of quality control: the assessment research is conducted by the participating countries and an institute operating in the private sector (ACER Australia), and the results of the research are published by the IHTT printing house. Many appeals have been made to IHTT, which conducts research, by scientists and those responsible for education policy regarding the creation of a quality control mechanism for this research. No external peer review is sought prior to publication of the final results. This is the basis for the conclusion that the results were analyzed one-sidedly. The impartiality of the results of the evaluation research is ensured if the review is received from external experts and the conclusions of the review are taken into account¹.

The preliminary results of the PISA international assessment study are not presented by any media. This indicates that the IHTT is the sole decision-maker regarding the research and causes the general public to wait a long time for the results of the evaluation study. Also, the tasks used in the research are not sufficiently presented to the general public. This directly creates difficulties for the school community, parents and those responsible for educational and regulatory documents, and leads to a lack of information in the organization of activities. Some critics argue that it would be beneficial to make available to the general public the tasks used in evaluation research. It was also concluded that the presentation of the results of the evaluation research to the general public in a short period of time will be an impetus for the development of the educational system of the countries participating in the research. Such opinions are also expressed by the scientific community, pedagogues, psychologists and other experts in critical speeches with the help of mass media.

The purpose of the PISA international assessment study is to have a general idea of the national education system of the countries participating in the study within the three-year cycle, the effectiveness of the educational reforms carried out over the three years, and the state of preparation of students for the demands of society. consists of research. In the assessment research, not the state of acquisition of evidence-based knowledge of students, but the current state of formation of basic competencies in them is studied. Basic competences are necessary competences for active participation of students in social, economic and political life. There are also criticisms of the purpose and content of the PISA

¹ Huiskens F. The "PISA shock" and how to overcome it. How much stupidity does the Republic need/can tolerate? // VSA-Verlag, Hamburg, 2005. – p.3.

assessment study. For example, according to scientists from French-speaking countries - France, Canada, Switzerland, "research results are directed in favor of Anglo-Saxon countries" and on the other hand, the countries participating in the evaluation study were told that "curriculums that are necessary in everyday life" they emphasized that they were pressured to focus on basic competencies.

For example, the French school education system is characterized by a high emphasis on accuracy in mathematics lessons, while assessment research tasks require mathematical thinking and some tasks require approximate solutions. Y. Wuttke expressed his critical opinions on the selection of basic competence areas in research: reading, mathematics and natural sciences. As a result of the emphasis on these core competencies in assessment research, social sciences, foreign languages, and art-related subjects have been neglected. The central areas of education - expression of one's opinion, knowledge of literature, historical, geographical, political and economic knowledge, religion and ethics are not given significant attention². H. Hunting described the concept of evaluation research as "not encyclopedic" and "the main focus of evaluation research is on basic competencies that are discussed among the general public, and this is the advertisement of evaluation research." It has also been questioned whether assessment research examines basic reading competence but not writing competence³. In his scientific article, T. Janke described the main goal of assessment research as "standardization of education" and research as "joining the test material development industry"⁴.

F. Huisken considers the purpose of the evaluation research to be contrary to the right of citizens of different countries to receive education and explains this opinion as follows: "The interests of the participants in the educational process, including the teacher and students, were not taken into account, the purpose of the research is unclear and a concept that is scientifically the opposite of educational standards"⁵.

Another critical aspect of the tasks used in evaluation research is that the content of the tasks is not fully reflected in the relevant science research or is not commensurate with the topics of the science research. The tasks used in the assessment research allow to investigate the current state of students' basic competencies and assess the state of students' acquisition of interdisciplinary knowledge, skills and competencies related to everyday life. Questions about subjects in related subject studies are not found in assessment research assignments⁶. At the same time, some samples of assignments used in evaluation research have been available to the general public since 2000. Some scientists have analyzed the examples of these tasks and assessed them as "errors and misleading"⁷. V. Meyerhofer, a didactic scientist in mathematics, called the research assignments "not suitable for testing mathematical skills or literacy"⁸ and described the problems in creating mathematics tasks as follows: "in many cases, there are several ways to solve the desired solution. This does not provide an

² Wuttke J. The insignificance of significant differences: PISA's claim to accuracy is illusory // 2007. – p.14. https://www.ssoar.info/ssoar/bitstream/handle/document/35905/ssoar-2007-wuttke-die_ineignifikanz_signifikanter_unterschiede-5.pdf?sequence=3.

³ von Hentig H. Rethinking schools // Weinheim, Beltz-Verlag, 2003. – p.24.

⁴ Jahnke T. PISA & Co: Critique of a Program // Paperback, 2007. – p.18.

⁵ Huisken F. The "PISA shock" and its management. How much stupidity does the Republic need/can tolerate? // VSA-Verlag, Hamburg, 2005. – p.8.

⁶ Wuttke J. PISA: an expensive random number generator // In: Berliner Zeitung, December 11, 2007. – p. 3.

⁷ Jahnke T., Meyerhöfer W. PISA & co-criticism of a program // 2nd edition Franzbecker, Hildesheim, 2007. – p. 12.

⁸ Meyerhöfer W. Tests in the test - the example of PISA. Barbara Budrich // Opladen, 2005. – p. 25.

opportunity to check the student's acquired knowledge and skills, and as a result, the assessment of basic mathematical competencies becomes random. When solving tasks, the student does not pay attention to the main solution method in the task, but draws attention to what answer is desired by the examiner. At this point, V. Meyerhofer recommended that a Multiple-Choice-Test (a test with several answers) be given as an assignment. Also, the scientist emphasizes that "the tasks used in the assessment research are not theoretically based from the pedagogical and psychological point of view." Mathematical tasks are structured not by applying mathematical solving methods, but by systematic division of tasks.⁹

There are also problems with the translation of evaluation research tasks into the official languages of the countries participating in the research. The first version of the tasks in evaluation research is formed in English-speaking countries. By translating into other languages, evaluation research assignments increase in size by about 10% compared to the original assignment. If the translator understands the content of the evaluation research assignments, he or she "will be inclined to help." If the translator does not fully understand the content of the assignment from the scientific point of view, then it will be difficult for the students participating in the evaluation research to understand the purpose and content of the assignment. The analysis also confirms that some errors occur in evaluation research assignments.

Mayerhofer believes that students from different countries "do not have the necessary experience in a certain form of assignment"¹⁰. There are also problems with the translation of evaluation research tasks into the official languages of the countries participating in the research. The first version of the tasks in evaluation research is formed in English-speaking countries. By translating into other languages, evaluation research assignments increase in size by about 10% compared to the original assignment. If the translator understands the content of the evaluation research assignments, he or she "will be inclined to help." If the translator does not fully understand the content of the assignment from the scientific point of view, then it will be difficult for the students participating in the evaluation research to understand the purpose and content of the assignment. The analysis also confirms that some errors occur in evaluation research assignments.

Mayerhofer believes that students from different countries "do not have the necessary experience in a certain form of assignment"¹¹. Peter Struck, on the other hand, expressed a positive opinion about assessment research, saying that this study created a tradition for the development of tasks and new measurement methods for measuring other competencies¹².

In addition to the tasks used in the study, critics have also focused on some aspects of the organizational aspects of the study. In particular, the motivation of students from different countries to participate in research. According to Sjöberg, "There are sharp differences between the motivation of forced students in Thailand or Korea and the motivation of students in Norway or Denmark. In particular, singing the national anthem before research

⁹ Ўша жойда. – p. 25.

¹⁰ Ўша жойда. – p. 24.

¹¹ Wuttkie J. PISA: Addendums to a debate that was not held // In: Communications from the Society for Mathematics Didactics 87, 2009. – p. 7.

¹² Wuttkie J. PISA: an expensive random number generator // In: Berliner Zeitung, December 11, 2007. – p. 21.

assignments in Thailand and Korea is an example of mandatory motivation. Norwegian and Danish students may not like participating in this study, and therefore students are not highly motivated to complete the assignments." In addition, critical comments were made regarding the age of the students participating in the research. In many countries, underperforming 15-year-olds leave school and move on to the next stage of education. For example, in Turkey - 54%, in Mexico - 58%, and in Germany - 96.3% of students attend school, and the rest, as noted above, have switched to another type of education, including vocational education. . This, in turn, causes the research results of students whose mastery is at the required level in Germany to be low¹³.

Also, a critical opinion is given to the high results of the Chinese state, and the reason for this is the Hukou system. If you look at the results of this study, you can see that the results of Shanghai are significantly higher. In the hukou system, the permanent residence of the Chinese state is recorded for each family, and the family sends its child to a school in that area. A child cannot study at a school in another region. This is understood as discrimination (restriction) against Chinese citizens living in rural areas. In addition, the small number of students participating in the study compared to the total population of China has also been criticized, and this situation is seen as a reason for the positive results in China¹⁴.

There are also criticisms of the database of the PISA international assessment study, which does not keep a list of participating students and does not allow the results of the study to be verified. The fact that special school students with disabilities did not participate in the study in other countries except for 7 countries was also criticized by scientific researchers¹⁵.

The PISA international assessment study determines the literacy of 15-year-old students. According to many pedagogical scientists, this criterion is a negative attitude towards the education system of some countries. In some countries, students start school later than in other countries, do not move from grade to grade, and there are cases of voluntary grade repetition. This is due to the fact that in these countries, in comparison with other countries, the participation of students in small classes in the research. From this point of view, the research concept does not provide an opportunity to determine the literacy of students "near the end of compulsory education". Alternatively, PISA does not measure cognitive skills at school, but instead measures the "current state" of a given age group. The results of the research do not answer the question of what kind of knowledge, skills and competences the school education gives an opportunity to develop. Also, the social status of students is studied in the research.

It is known that the social conditions of students in different countries are different. The interpretation of this social situation depending on the student's cognitive development has caused many criticisms. The results of the PISA international assessment study are made available to the general public two years after the study was conducted. If there is an urgent need to change the direction of education policy, the late release of research results is not desirable in many ways. The interpretation of the research results is analyzed in relation to

¹³ Rindermann H. What do international school performance studies measure? school performance; Student skills, cognitive skills, knowledge or general intelligence? // In: Psychological Review. Göttingen 57, 2006. – p. 112.

¹⁴ Huisken F. The "PISA shock" and its management. How much stupidity does the Republic need/can tolerate? // VSA-Verlag, Hamburg, 2005. – p. 12.

¹⁵ Wuttke J. PISA: an expensive random number generator // In: Berliner Zeitung, December 11, 2007. – p. 45.

the curriculum hours of a certain subject, for example, mathematics. Extracurricular education, including clubs and extracurricular activities, is not taken into account¹⁶.

Does PISA measure intelligence?

Heinke Rindermann and Siegfried Lehrl (Heiner Rindermann, Siegfried Lehrl) stated in the book "IQ and the Wealth of Nations" that the difference between the intelligence level and the research results is between +3 and -3¹⁷.

In conclusion, it should be noted that although the PISA international assessment research has been criticized by many pedagogic scientists, it is widely recognized in the world and the number of countries participating in the research is increasing.

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¹⁶ Meyerhöfer W. Tests in the test - the example of PISA. Barbara Budrich // Opladen, 2005. – p. 45.

¹⁷ Rindermann H. What do international school performance studies measure? school performance; Student skills, cognitive skills, knowledge or general intelligence? // In: Psychological Review, Göttingen 57, 2006. – p.