IMPROVING STUDENTS' NATURAL AND SCIENTIFIC LITERACY IN PREPARATION FOR INTERNATIONAL RESEARCH ON THE QUALITY OF EDUCATION

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Abstract: This paper looks at improving scientific literacy among secondary school students through the integration of information and communications technology (ICT). The paper explained the term scientific literacy and the characteristics of students who are deemed to be scientifically literate. The state of scientific literacy among secondary school students was reviewed from earlier works. The meaning of ICT and its use in science classrooms and ways ICT could improve scientific literacy among secondary school students were examined. Finally, it was recommended that government should provide necessary infrastructure for the integration of ICT in our secondary school systems as provided for in the national policy on education. Also, that the training and retraining of ICT teachers and instructors should be encouraged in our secondary schools and that subject teachers in biology, chemistry and physics should be trained on the use of ICT so as to be familiar with teaching packages in their subject areas for use in secondary schools.

Keywords: ICT, Scientific Literacy, Secondary School Students.

Introduction.

In his address to the Oliy Majlis, President of the Republic of Uzbekistan Sh.M.Mirziyoev paid special attention to improving the quality of education and proper preparation for the international assessment process in 2021, among the urgent issues of state and public importance. The Presidential Decree also approved the "Concept of Development of the Public Education System of the Republic of Uzbekistan until 2030", which prioritizes the entry of the Republic of Uzbekistan in the top 30 countries in the world by 2030 according to the PISA international assessment program.Enrichment of teachers 'and students' perceptions of PISA and PIRLS research at the secondary school No. 329 in Sergeli district, which was built at the initiative of the President in cooperation with the Ministry of Public Education, the National Center under the State Inspectorate for Quality Control and the Main Department of Public Education in Tashkent. An educational-practical seminar was organized in order to increase the quality of education, to develop students' creative and logical thinking skills, thereby contributing to improving the quality of education.The seminar provided information on the benefits of participation in PIRLS international surveys conducted by the Organization for Economic Cooperation and Development (OECD) and the International Association for the Evaluation of Educational Achievements PISA, the specifics of preparing and conducting international surveys and future tasks.Trainings on the principles, objectives, forms of assessment of student literacy in PISA and PIRLS studies were conducted in international research, the assessment of students' reading, natural and mathematical literacy, the design of educational processes aimed at developing student literacy.In addition, all departments were provided with information on the assessment of creative thinking of students in the PISA 2021 survey, as well as practical training

on the tasks of the international programs PISA and PIRLS.Successful participation in international assessment programs is directly related to improving the quality of education. Participation in it is an important tool not only in Uzbekistan, but also in the world community, in assessing the competence of students to memorize their curricula, that is, to apply their knowledge in real life situations, to develop creative and logical thinking skills and to evaluate it.
The premises of the study Positioning Romania among the countries with low performance of students, on the basis of international evaluations and especially the current trend of decreasing their, it highlights the fact that the Romanian education presents a series of weaknesses, which requires amelioration. These measures are related firstly of national educational policies of implementation a flexible curriculum and focus on necessary skills for personal development, the change of teachers ' professional attitude through initial and continuous training. Teachers must prove their professional skills through the application of new trends of contemporary pedagogy in practice an effective training. A situation which, also would require improvement, is the fact that as the students go through gradually curricular cycles the motivation and interest in the so called fundamental disciplines, Mathematics and Science, are increasingly smaller. The reasons are multiple and we will not develop here. We appreciate that an efficient to the motivational valences of interactive methods contribute to the development of interest in learning, capable of increasing the durability of knowledge acquired thanks to the active involvement and own intellectual effort. Putting the student in a situation to search and find solutions, to the various problems taken from daily life, contribute to the school success. The program for international student assessment describes the scientific literacy in terms of the ability to use scientific knowledge to identify the questions and to draw evidence-based conclusions; to understand and make decisions about the natural world and, modifications made by human activity. Tests conducted in 2012, whose results were made public in 2013, showed that Romanian students are below average in all components of the assessment, but also they are the least motivated, compared with those in the rest of the 64 countries. OECD PISA programme 2015 aims to evaluate the principal domain, Science and Technology, specifically targeting scientific literacy more specifically the ability of school children to get involved in issues and ideas related to science as a reflective citizen. In the PISA data, distribution of European countries depending on media scientific literacy and the percentage of variation explained by cultural socio economic index Romania ranks in the group of countries with Viorel Dragoș and Viorel Mih / Procedia - Social and Behavioral Sciences 209 (2015) 167 – 172 169 low scientific knowledge, but with an important contribution of social status, economically and culturally, in explaining the variance scientific performance. These results highlight a strategy of education system which is not sufficiently focused on scientific and technological knowledge. The results of PISA data are confirmed by data analysis STISOC socio economic factors playing an important role in the ' baggage ' of knowledge that each individual has. The STISOC project, Science and Society, funded by the National Authority for Scientific Research from Romania, shows in a study, Interests and perceptions of the general public regarding scientific research and research results, published in 2010, that only one in ten Romanians features an enhanced scientific culture and active. "Cognitive Deficit of Romanian audience is one of the largest from Europe and it doesn't seem to improve " . "Compared with other Europeans, Romanians have a lower stock of scientific knowledge, being so less «literate» from the scientific point of view ", says the same document. Paradoxically, the Romanians manifest, it seems, a high level of positive attitudes towards science and toward its development. About 1 from 2 Romanians declares strong and pragmatic

support toward scientific researches. However, the researchers temper our enthusiasm of this manifestation of progress, highlighting that the positive attitudes are less based on knowledge and wittingly adhesion to the methods, values and achievements of science. Scientific literacy in Romania is low and very few people want to put the issue.

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