

TEACHING-LEARNING MODELS FOR FORMING COMPETENCES
NECESSARY TO ACQUIRE BY GRADUATE STUDENTS



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Abstract: The article analyzes the basic skills and competencies that schoolchildren should have, as well as the national qualification standards aimed at forming these competencies. At the same time, the model of the school graduate, which is considered to be a unique ideal expression of the results of the general education system and, in particular, each educational institution, and methodical recommendations for the formation of teaching-learning models were developed.

Keywords: Skill, competence, graduate model, mechanisms.

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High school graduates are required to master the competencies they need to acquire as they transition to a new lifestyle. Although much research has been done on what competencies students should have as graduates, there are different approaches and opinions. Of course, this is a natural state. Because, in a rapidly changing world, there are differences between goals and conditions. Nevertheless, it is possible to see common requirements and aspects regarding the competences of school graduates in many conducted studies.

A 2009 study by the Partnership for the 21st Century suggests that the key skills and competencies students should possess are "critical thinking," "creativity," "problem solving," "collaboration," "universal literacy," "adaptability," and "global competence."¹⁵⁶

An important event in the study of competencies that should be acquired by high school students and graduates took place in 2011 in the United States (USA) between the American Association of School Librarians, the National Education Association and foundations such as Microsoft, Lego, Pearson, ETS, Intel, HP, Dell, Apple, Crayola, Cisco, and a working group of 32 educational scientists conducted a study called "21st Century Competencies" and the study report was prepared on the results. This report highlighted the knowledge, skills and competencies that students should have in order to become successful and exemplary citizens in business and life in the future, and urged all nations to acquire these skills. According to the report, 21st century competencies are defined as: creativity,

¹⁵⁶ Partnership21. Curriculum and Instruction: A 21st Century Skills Implementation Guide. The Partnership for 21st Century Skill, 2009. http://www.p21.org/storage/documents/p21-stateimp_curriculuminstruction.pdf.

problem solving, innovation, critical thinking and information technology literacy and points to the successful educational reforms of many countries today.¹⁵⁷

According to research conducted by the Partnership for the 21st Century, the competencies that high school students and graduates should acquire are:

Basic lessons	Innovative competence	Information, media and technological competence	Life and career competence
Математика	Creativity and innovation	Information literacy	Flexibility
Foreign languages (English)	Critical thinking	Media literacy	Initiative and self-management
Literature and art	Solving problems	Literacy of information and communication technologies	Social and intercultural competence
Economics and financial knowledge	Communication and cooperation	Information security	Productivity and accountability
History and geography	Business and entrepreneurial literacy		Leadership and responsibility
Civil (legal) literacy	Global consciousness		Creativity
Health literacy			
Environmental literacy			

As we have seen above, there is a lot of similarities between the proposals and recommendations given by different institutes and research centers regarding the competencies that high school graduates should acquire. In fact, the reason for this is simple: to create convenience and equal opportunities for the world-class graduates in their further education and working life. For these purposes, the Parliament and Council of the European Union adopted in 2008 and updated the qualifications in different countries and systems in 2017 to make the qualifications in different countries and systems more understandable and transparent. Thanks to the EQF, employers can compare foreign qualifications with national qualifications and better understand the qualification profiles of candidates. The

¹⁵⁷ P21 Partnership for 21st Century Learning <http://www.battelleforkids.org/networks/p21> (Маълумотга эришилган тарих: 11.12.2021)

EQF helps people tap into their talents by facilitating pathways to further learning and encouraging better skills matching in the labor market".¹⁵⁸

A lot of research is also being done on the question of how to master the competencies that high school graduates should acquire. This is usually explained by the creation of a "graduate model". That is, the questions of how a successful graduate has completed or should complete effective learning, teaching-learning models are debated and researched.

In general, in English-language studies, "Model Profile of a Future Graduate" (model profile of a future graduate), in Russian-language studies, in the form of "Model vpusknika" (Graduate model), ideas and approaches are put forward about what competencies a graduate should have.

In particular, Linda Haycock, a member of the Ohio Department of Education (ODE), said, "We felt it was very important to develop the profiles and characteristics that graduates should have in order to successfully transition into the big life. Therefore, we have created a model profile of the future graduate with 13 qualities," he says. The Maximum Potential team's five most important competencies out of 13 qualities are: problem solving/critical thinking, basic knowledge and skills (reading, math, language, and interdisciplinary), leadership (self-confident, responsible, and positive), citizenship, and global/cultural issues (being passionate about making the world a better place, not just one's own country, but also learning the civic duties and values of other countries), communication (having good oral and written communication).¹⁵⁹

All of the above competencies are important, with problem solving/critical thinking being the most important. Both skills can be considered separately or together, but often a problem solver is also a great critic. Any problem has two common features: a solution and an obstacle. A critical thinker is able to methodically overcome an obstacle to solve a problem. Perhaps this is why employers value problem-solving skills so highly. Problem solving and its key components, such as critical thinking, are applicable to almost any workplace. Writer Lewis Eshman says, "Regardless of the sector, industry, or job function, the challenges and challenges you must solve arise regularly and are often the measure of your success in the role." As the world changes rapidly, critical thinking and problem solving are key skills for the future.¹⁶⁰

It should be noted that special emphasis was placed on critical thinking in the TALIS-2018 research conducted by the Ministry of Public Education and A.Avlony Scientific Research Institute in Uzbekistan. It recognizes critical thinking as a very

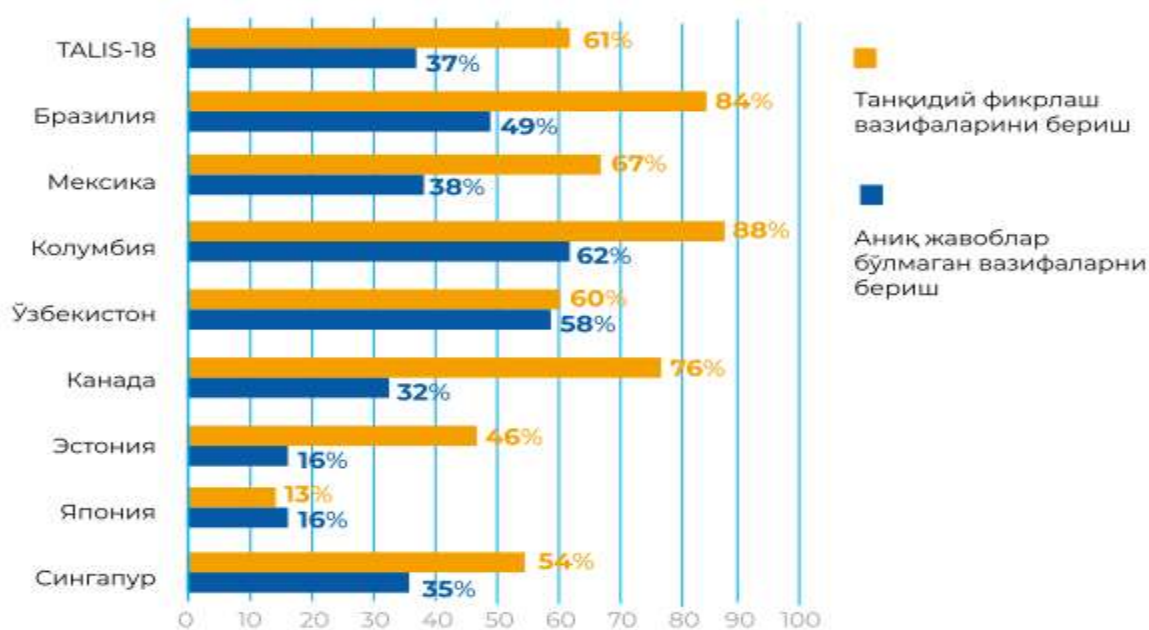
¹⁵⁸ The European Qualifications Framework, same source, page 4.

¹⁵⁹ Lauri King, Top 5 Skills Needed When Graduating from High School, March 7, 2020. <https://maxpt.net/blog/top-5-skills-needed-when-graduating-from-high-school/>

¹⁶⁰ Lauri King, Top 5 Skills... that source.

important and future professional aspect of a modern person. Although native language teachers reported giving students tasks that require critical thinking slightly below the TALIS-2018 research average, we can see that they were 20% above the TALIS-2018 rate for giving distractor tasks with no clear answers (see Chart 1):¹⁶¹

Diagram 1. Teachers always or often give different tasks to students



In diagram 1, we can see that 60% of the teachers who took part in the survey in Uzbekistan believe that critical thinking is important, compared to 88% in Colombia and 13% in Japan. The average indicator of TALIS-2018 is 61 percent.

We can see that there are many opinions and approaches regarding the competences that graduates should acquire in the scientific work conducted at the level of the CIS countries. Many methodical scientific works were carried out in them, such as the content and essence of graduate competence, the graduate model, requirements for graduates and methods of their mastery.¹⁶²

The model of a graduate of any educational institution in the educational system is a unique ideal representation of the results of the general educational system and, in particular, of a particular educational institution. This is a

¹⁶¹ Radjiev A., Karimov F. and others. Report of the TALIS-2018 survey and research conducted on the basis of international research requirements. Part 1. Tashkent, 2021. - B. 53.

¹⁶² Solodova T. E. From the competence model of a graduate to a competent graduate. Vestnik VolGU. Series 6. Issue. 11, 2008-2009. - P. 34-39; Nosko Irina V., Graduate model as the basis for the formation of students' competencies in the process of university training. Abstract diss. Ph.D., Vladivostok, 2007.

synthesized image of a graduate with certain professional and personal characteristics and qualities that correspond to a certain level of education.¹⁶³

Based on the above, a graduate model should be created. Model development is the first step. The next step is to create the conditions under which the model can be implemented. Of course, the provision of high-level knowledge should translate this knowledge into competence. The school should provide a degree of qualification that will help the graduate to adapt to different areas of life.¹⁶⁴

Reality and many research experiences show that a person who has mastered communicative, social, legal, psychological, informational and other competencies along with basic (basic) knowledge can successfully present himself in society as a citizen, head of a family, professional, culture bearer.

Therefore, each general secondary education institution is suggested to develop a project of "exemplary graduate model" for itself. The proposed model should provide for the solution of a number of tasks: active development of critical thinking, development of students' cognitive abilities, formation of the ability to independently monitor their own knowledge, mastering the technique of persuading students and presenting their arguments, effective communication, negotiation, problems and conflicts to learn non-violent solutions, to develop the ability to work in a team, to feel as a member of a team, it will be necessary to form such skills as taking responsibility, being able to share responsibility and accountability with others, analyzing the results of activities, working with information sources, conducting discussions, reasoning, protecting personal opinions. As a result of this project activity, it helps to develop critical thinking, initiative, independence, organizational skills and stimulates the process of self-development.¹⁶⁵

In general, there is a gap between the interests and aspirations of the general high school graduates and the educational standards in many countries. On the one hand, this means that the outdated, standardized education system cannot keep up with the processes of the rapidly changing technology and social media (Facebook, YouTube, Instagram, Tik Tok, etc.) that take up a lot of students' interest and time in the modern era, and on the other hand, modern techniques and technologies. It shows the effect of the lack of skilled personnel, the lack of timely implementation of educational reforms based on global changes, and the differences in conditions between countries and regions. Therefore, today's graduate is, first of all, a creative

¹⁶³ Birchenko E. V., Bondar T. I. et al. An integrated model of a graduate of an innovative educational institution: A methodological guide for teachers of general education and higher education at KSU "NUA". Kharkiv: NUA Publishing House, 2017. - P. 3.

¹⁶⁴ Rodomanchenko II, Model of a graduate of a modern school. What is a high school graduate like? The role of the class teacher in the development of a socially adapted personality through the formation of universal human values. <https://ik-ptz.ru/dictations-on-the-russian-language--class-3/model-vypusknika-sovremennoi-shkoly-vypusknik-shkoly-kakov-on-rol.html> (The history of access to the information: 17.01.2021)

¹⁶⁵ Rodomanchenko I.I., that source.

person with great potential for self-development and self-realization. Therefore, in creating a unique model of a competent graduate of a general education organization, the school relies on the development based on the methodology of local and foreign (emphasis the author) scientists.¹⁶⁶

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¹⁶⁶ Derevyanchenko I.A., that source.

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