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21ST CENTURY SKILLS: FROM THE CLASSROOM TO THE WORKPLACE

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Problem statement. The lifestyle in the 21st century makes young generation be prepared for the future career almost from childhood. Higher education is a final bridge to the workplace where students can apply the skills acquired. Although there are various classifications of the 21st century skills [1], it is necessary to mention that skills are based on knowledge and information obtained in any field studies. Thus, any learning process (whether it is English, Engineering or Architecture, for example) is aimed to develop those essential skills in the classroom that can be further applied in a real professional life.

Purpose of the study is to analyze main categories of the 21st century skills, which ones are in demand, to make a particular focus on the English language classroom and figure out the skills to be developed in ELT and ESL classes.

Findings. Having reviewed existing discussions, it is difficult to single out a certain classification of skills [2; 3]. There are “soft skills” including critical thinking, problem solving, public speaking, professional writing, teamwork, digital literacy, leadership, professional attitude, work ethic, career management and intercultural fluency, as well as “hard skills” which are specific to individual professions, used in the context of employability [4].

With international development, the term “life skills” appeared and reflected similar skills with some terminology variations (decision-making, problem-solving, creative thinking, critical thinking, effective communication, interpersonal relationship skills, self-awareness, empathy, coping with emotions, stress) [5; 6].

Thus, analyzing key studies [7–9], we can identify specific number of skills, which cover main areas and are successfully developed in English classes:

- 1) Communication skills (include language and presentation of ideas – key skills which are regularly developed in English classes).
- 2) Collaborative skills (include teamwork and social interaction – pair or group work activities).
- 3) Individual learning approaches (include critical thinking – making reasoned judgments, thinking creatively, solving problems; new skills acquisition).
- 4) Individual autonomy (include flexibility, adaptability and entrepreneurship).
- 5) ICT and digital literacy (include use of technology as tools for learning, communication and collaboration – in conditions of online/distance, hybrid, blended learning this skill is inevitable).

According to N. Tilikina, based on her analysis conducted in Ukraine, skills important for young generation can be classified through the following four categories: 1) academic skills, which include critical thinking, creativity and ability for self-study; 2) literacy skills – reflected in different types of literacy: media, digital, etc; 3) social skills, including teamwork and emotional intelligence development; 4) personal skills – flexibility, time management, leadership [10]. In our opinion, this classification demonstrates the skills which can be easily developed through the tasks in ESL, EMI and ESP classes.

However, the ‘4Cs’ (Critical thinking, Communication, Collaboration and Creativity), developed to teach core subject areas, proposed by the US-based Partnership for 21st Century

Learning (P21) seem to be well-known among language teachers [11]. They are like classroom goals for most learner-centered English language educators.

Conclusion. The development of skills that were analyzed and singled out as the key ones is embedded in the tasks and resources of modern methods and approaches to teaching English. The 4Cs are fundamental for language educators, since effective communication skills for effective expression of ideas and knowledge are highly valued in the workplace; collaboration skills in the classroom have clear benefits in future career; critical thinking which involves the ability to assess, analyze and synthesize information is essential to 21st century learning; creativity leads to the ability to generate ideas and solutions. Indisputably, there is a broader set of skills developed within the context of teaching and learning a foreign language or any core subject imperceptibly, for example, responsibility, goal orientation, respect, etc.

As Alvin Toffler, philosopher and futurist said, ‘The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn’ [12].

One of the aims of educators is to provide students with equal opportunities in education, to develop their potential, to present all information about the demands in the future profession and show the maximum comfortable way how to gain necessary skills and knowledge.

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MODULAR TECHNOLOGY AND ITS APPLICATION IN MODERN CONSTRUCTION

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Problem statement. Today in our country, serious attention is being paid to the use of new technologies that would significantly improve the rate of return on projects, the quality of construction and, accordingly, to shorten as much as possible the milestone dates of the works. In other words the efficiency of the project as a whole. The modular construction technology guarantees the highest degree of industrialisation in the manufacture of buildings in the world.

Purpose of the study. Since construction is a branch of the real sector of the economy and belongs to the most capital-intensive industries, its priority task is to reduce capital intensity, which is achieved by this specific technology. Reducing costs and environmental impact as well as project timelines is always relevant to development companies, and the use of modern modular technologies, such as industrialized fabrication with apartments modules, multilayer glued wood panels (CLT-panels) and light steel thin-walled structures seems to be the best and most effective way of achieving these objectives. Not only the profitability of MC, but also the reduction of negative factors on the environment being achieved by reducing the duration of building. In the last five to seven years, these structures have gained particular popularity due to their energy efficiency, since individual structural modules and volumetric block-modules are made utilizing energy-efficient materials; there are also modules (containers, blocks, boxes, etc.) with already build-in finishing.

Main results. Objects erected using this method, namely buildings, structures, etc., are assembled from blocks or modules manufactured at the manufacturing plant, which are transported to the construction site and assembled together accordingly. Alongside to the assembly of reinforced concrete block-modules, there is a growing trend towards MC of lightweight structures in the form of spatial frameworks similar to shipping containers, several times lighter than their reinforced concrete counterparts, they have found their use in many countries. As an another fitting example in Switzerland in the 90s. of the last century, for the first time, multilayer glued wood panels were used, consisting of wooden lamellas stacked in rows. The products are glued together and pressed together. The rows are arranged crosswise relative to each other. Vertical lamellas provide a high bearing capacity, and horizontal ones – stiffness in the longitudinal plane [1]. Due to the increased public interest in eco-construction, the technology has become a huge demand, from such panels they began to