

УДК 373.3/5.048:331.548](091)(410)"192"
DOI: 10.31499/2307-4906.2.2020.216673

MAIN TRENDS OF SCHOOL EDUCATION IN ENGLAND

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The author highlights major trends of school education in England. The author describes certain factors shaping the trends in education: in particular, there are three factors that affect English education. Different official documents and reports have been analyzed, and major outcomes have been written. The main trends and innovations in English school education are described in the article: crowdsourced classes, cultural immersion, environmental impact, appreciating the arts, human intelligence, digital responsibility, life skills and workforce preparation, innovating pedagogy, computational thinking, student-led learning, collaborative classrooms, connecting guardians and schools, emerging technologies. STEM education has also been described as one of the main trends of school education in England.

Keywords: trends, innovations, school education, innovations, UK, development, STEM education.

ТЕНДЕНЦІЇ У ШКІЛЬНІЙ ОСВІТІ В АНГЛІЇ

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У статті охарактеризовано основні тенденції та нововведення у шкільній освіті Англії. Описано певні фактори, що формують тенденції в освіті, зокрема, є три фактори, які впливають на освіту. Проаналізовано різні офіційні документи та звіти, описано основні результати. Департамент освіти Великобританії створив умови, відповідно до яких вплив розвитку основних тенденцій на стандарти освіти різноманітний, що відображає різні рівні інвестицій, доступ до високоякісної широкосмугової та підтримки вчителів. Інноваційна освіта та навчання орієнтовані на формування соціальної та адаптаційної готовності людини через розвиток творчості, різних форм мислення, вміння співпрацювати. Специфічними рисами інноваційної освіти є відкритість до майбутнього, здатність прогнозувати на основі постійної переоцінки цінностей, орієнтація на конструктивні дії в нових ситуаціях, що забезпечується шляхом розробки та впровадження освітніх інновацій. Описано основні тенденції та інновації у Великобританії: масові заняття, культурне занурення, вплив на навколишнє середовище, оцінювання мистецтва, інтелекту людини, цифрову відповідальність, життєві навички та підготовку робочої сили, інноваційна педагогіка, обчислювальне мислення, навчання під керівництвом студентів, спільні аудиторії, що з'єднують опікунів та школи, нові технології. Освіта STEM також описується як одна з основних тенденцій шкільної освіти Англії.

Ключові слова: тенденції, інновації, шкільна освіта, розвиток, Англія, навички, STEM освіта.

At the present stage, improving the quality of Ukraine's secondary education system has been a top priority. To achieve this goal, it is essential to update the content of education, forms and methods of organizing the educational process, improvement of the monitoring of the results. The fast development in digital, technological spheres and the need to develop necessary skills and resilience cause the appearance of new trends and innovations in education.

Therefore, there is an important issue of changes in the sphere of education in all of its levels, which are a requirement of time and a condition for successful development of the society. Appearance of trends in education is the process of creation, implementation and extension in the educational practice of new ideas, tools, pedagogical and management technologies. England has accumulated a significant experience in the development of school education.

The development of innovative processes in the UK secondary education system has been the subject of research of domestic scientists for several decades, driven by the status of the country as one of the leading and highly developed countries in the world. The subject of our scientific research involves the analysis of studies in the field of pedagogical innovation (L. Vashchenko, L. Vozniuk, L. Danilenko, I. Dychkivska, V. Zagviayzynskyi, M. Karamushka, O. Kiiashko, V. Palamarchuk, O. Kozlova, V. Kremen, M. Lazarev, V. Lutai, I. Matiuk, L. Podimova, S. Nikolaenko, O. Pehota, N. Pohribna, O. Popova, V. Riabenko, G. Selevko, G. Sazonenko, A. Zbrueva, V. Khiminets, V. Slastonin, L. Sohan, V. Zikin and others), and in the field of British pedagogical science (O. Lokshina, N. Voskresenskaia, K. Harashchuk, M. Hurii, I. Ivaniuk, H. Marchenko, O. Matvienko, O. Miliutina, etc.).

The author has a goal to highlight and describe modern, major trends in school education in England.

The beginning of the XXI century is characterized by the emergence of studies that characterize the features of the development of innovative processes in different subject areas. Education in the beginning of the XXI century, in its turn, is characterized by the implementation of trends aimed at innovative development, which will improve the efficiency of the educational process in schools. Authors of dissertation researches, monographs, and articles focus their attention on problems of civic education, environmental education, labor training, multicultural and language education.

Modern trends in education are focused on the formation of a person's social and adaptive readiness through the development of creativity, different forms of thinking, the ability to cooperate. Specific features of innovative education are openness to the future, flexibility, the ability to predict constant reassessment of values, orientation to constructive actions in new situations, which is ensured through the development and implementation of educational innovations.

As a British scientist J. Lowry states: "In a knowledge economy, remembering facts and procedures is not enough to succeed. Educated workers need a conceptual understanding of complex concepts and the ability to work creatively with them to generate new ideas, new theories, new products and new knowledge. They must be able to critically evaluate what they read, be able to express themselves clearly orally and in written form, and understand scientific and mathematical thinking. They need to acquire integrated and useful knowledge, not a set of facts. They need to be able to take responsibility for the future all life" (J. Lowry, 2015) [5].

There are an estimated 3.9 million computers in the UK classrooms, and educators are adopting e-assessments, data-driven comprehension analytics, as well as game and video-based learning. The latest tech trends in education include utilizing of cloud-based technology that stores information and lessons in one central place that students from anywhere can access – no matter what the proximity to their tutor is. In addition, with more than 58 % of the UK households owning a tablet and 85 % of adults using a mobile phone, mobile-based education is forecast to grow rapidly. Usage of these devices is ingrained in the younger generation's lives. Maximizing this familiarity for education purposes is a natural and practical progression. Higher education institutions are creating, testing and implementing a number of new digital tools to improve student retention, satisfaction and success [12].

There is a trend in the English school system towards greater autonomy and diversity. School autonomy refers to the level of control given to schools from local authorities (and central government in the case of curriculum). Individual schools can be given control over their curriculum, expenditure and resourcing decisions. Education systems can also contain a number of different types of school categorized by ownership, source of funding and responsibility for admissions. Schools in England have more autonomy from local authorities than in other UK nations, and there is a greater diversity of types of school. The modern English system includes maintained schools, sponsored academies, converter academies, grammar schools, independent schools and free schools. There is a high diversity in terms of timetabling, delivery and beliefs about the purpose of education and learning. The English National Curriculum is the first country in the world to have mandatory computer programming at primary and secondary level in most maintained schools [7].

A British scientist Chris Kreinczes highlights three trends: digital responsibility (99 % of teachers think online safety should be a part of the curriculum); life skills and workforce preparation (91 % of CEOs globally say that they need to strengthen their organization's soft skills to sit alongside the digital skills); innovating pedagogy (88 % of teachers say that educational technology enables pedagogical innovation and improves educational quality).

Rachel Wolf, Founding Partner of Public First and Founder of the National Schools Network, states: "If we're in the era of automation, it's even more important that we prioritize people's EQ not their IQ, that we make them adaptable". The research "future of the classroom" suggests that higher levels of emotional intelligence are linked to better leadership and the ability to cope with pressure, which is a very important skill in today's world. These qualities are being prized more highly than the traditional measures of success. According to the British scientist A. Robins – 53 % of UK teachers believe that soft skills are more important than academic qualifications for students' success, and 72 % believe that their school should increase the teaching of them. 88 % of young people report that life skills are "as important" or "more important" than academic qualifications. It is also a way of future-proofing students for the unknown. As technology can be used to automate aspects of jobs – the Office for National Statistics expects 1.5 million jobs in England to be automated in the future – more value will be placed on human skills such as empathy and creativity [8].

Nord Anglia Education chief executive, Andrew Fitzmaurice, distinguishes five main trends in the school education. They are:

- 1) Crowdsourced classes (what is taught in classrooms will be increasingly decided by pupils – they'll direct the exploration of subjects, drawing on topical issues affecting the world they live in, to inform questions and the development of discussions. The role of

teaching becomes much more about coaching and helping pupils not only build their knowledge, but also make better sense of what they are learning. Lesson planning should be kept flexible and focused on garnering student input at the very beginning.);

2) Cultural immersion (there will be a growing rebellion against the many benefits of Google and the Internet, as pupils crave real, first-hand experiences. It is widely acknowledged that younger generations value experiences, and this is impacting their learning behaviour. They do not want just to read about something on the Internet or see it on the screen. They want to actually get out, see things for themselves and talk with experts. More teaching needs to happen outside of the classroom and should not be considered extracurricular. Activities such as visiting museums, libraries, parks, and places of worship and historic importance, are a key part of learning);

3) Environmental impact (Sustainability ranks highly on political and corporate agendas. It becomes more of a public talking point, and of increasing concern for students that want to protect the world they're growing into. They are looking for schools and the education system to help them understand how and why everyday choices can have a lasting impact on the environment, and what they can do to be more responsible and sustainable. Education needs to better embrace international efforts, such as the UN's 2030 Agenda for Sustainable Development, to satisfy students' demand for a holistic understanding of addressing global issues such as climate change);

4) Appreciating the arts (The arts have long lived in the shadow of STEM, with greater emphasis placed on high academic performance in these subjects. As Artificial Intelligence (AI) continues to evolve at pace, and machine learning processes larger volumes of data and skills – including emotional intelligence, creative problem solving, teamwork and self-confidence – will become increasingly important. These skills are fundamentally subjective and cannot be effectively replicated by technology; they are all acquired through an understanding of the arts. This will illuminate a shift in how society values the arts in education as people look at how they can complement, and not compete with AI.);

5) Human intelligence (Recent advances in technology have, rightly, seen a growing trend of AI-focused teaching and learning. However, this has often centred on the capabilities of AI. There is a growing realization that workplaces of the future will be a hybrid of machine and human intelligence, and that education needs to prepare for this by understanding the changing dynamic between people and technology. Teaching and learning are evolving to consider the role of human intelligence in a digital, automated world, and looking at human intelligence being defined by more than knowledge) [14].

Within the education industry, there is a renewed focus on technical learning, in line with the government's new Industrial Strategy. This long-term plan to 'boost the productivity and earning power of people throughout the UK includes an emphasis on education. In particular, strengthening vocational education, as a viable and valuable alternative to the existing academic provision. New T Levels for 16-to-19-year-olds will be taught since 2020. These modern vocational qualifications will offer an alternative to A Levels and replace a large number of existing courses. These are the "biggest overhaul of post-school education in 70 years", according to a government spokesperson. The lesson programs and assessments have been developed with leading companies including Rolls Royce, EDF and Lloyds Bank. The first T Level courses confirmed are Digital, Construction, Education and Childcare. This attention on technical learning is also seen at university level with the introduction and rising

popularity of degree apprenticeships, rather than the traditional higher education courses. Degree apprenticeships tailor learning to specific business needs and enable students to earn a full-time wage as they study at university part-time. Students leave with a full Bachelor's or Master's degree and improve their chances of full-time employment on completion. There are also various initiatives to encourage more female students into science, technology, engineering and mathematics (STEM) subjects. Those working in education will be expected to help nurture and encourage young women in these areas to address the current gender gap in the uptake of STEM courses.

STEM is the acronym used in England for science, technology, engineering and mathematics. STEM subjects are a central plank in developing the UK's skills base. STEM in education begins with the early development of mathematical and scientific ideas in preschool education, which are built upon in primary and post primary education. The pupils in the post primary sector study mathematics to age 16, while they may choose from a variety of inter-related science/technology courses. Throughout, pupils are provided not only with knowledge of the subjects, but also develop investigative and problem-solving skills and the understanding of their application in the real world and their impact upon society. From post-16 through to tertiary level, young people are offered a wide portfolio of qualifications to meet their personal aspirations. STEM in society is concerned with equipping the public with sufficient knowledge and understanding of issues relating to STEM, so that they are enabled to make informed judgments on the technological challenges facing them. It is important that they understand the contribution of STEM to everyday life and to the local economy through a vibrant private sector, which offers rewarding career opportunities for young people. STEM in the economy concerns having sufficient people with the skills and knowledge required to grow STEM based businesses, leading to future economic growth and prosperity [13].

Having analyzed the sources of information, we can identify several education trends in England. They are:

- digital responsibility;
- life skills and workforce preparation;
- innovating pedagogy;
- computational thinking;
- student-led learning;
- collaborative classrooms, bringing together guardians and schools;
- emerging technologies.

The English National Curriculum is the first country in the world to have mandatory computer programming at primary and secondary levels. Moreover, there is a trend in the English school system towards greater autonomy and diversity. STEM education is one of the main trends in school education of the countries in England, where STEM subjects are viewed as a central plank in developing the UK's skills base.

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