

SCHOOL-BASED TECHNICAL EDUCATION IN LATE NINETEENTH – EARLY TWENTIETH CENTURIES ENGLAND

ГОЛОВКО Ирина Олексіївна. ВПРОВАДЖУВАННЯ ТЕХНІЧНОЇ ОСВІТИ НА ШКІЛЬНОМУ РІВНІ В АНГЛІЇ (кінець XIX – початок XX ст.)

Розглянуто процес впровадження технічної освіти в школи Англії в кінці XIX – на початку XX ст. Виділено характерні риси технічної освіти, її сильні та слабкі сторони. Визначено роль та підходи уряду в практичному втіленні технічної освіти в національну систему шкільної освіти.

Ключові слова: обов'язкова освіта, технічна освіта на шкільному рівні, вищі школи, центральні школи, молодші технічні школи, Англія кінця XIX – початку XX ст.

ГОЛОВКО Ирина Алексеевна. ВВЕДЕНИЕ ТЕХНИЧЕСКОГО ОБРАЗОВАНИЯ НА ШКОЛЬНОМ УРОВНЕ В АНГЛИИ (конец XIX – начало XX ст.)

Рассмотрен процесс введения технического образования на школьном уровне в Англии в конце XIX – начале XX ст. Выделены характерные черты технического образования, его сильные и слабые стороны. Освещены роль и подходы правительства в практическом введении технического образования в национальную систему школьного образования.

Ключевые слова: обязательное образование, техническое образование на школьном уровне, высшая школа, центральная школа, младшая техническая школа, Англия конца XIX – начала XX веков.

GOLOVKO Iryna Olexiyivna. SCHOOL-BASED TECHNICAL EDUCATION IN LATE NINETEENTH – EARLY TWENTIETH CENTURIES ENGLAND

The abstract focuses on the development of technical education at school level in England over the course of the late nineteenth – beginning of the twentieth century. It outlines its main features, strengths and weaknesses. It also reviews the policy and practice of the government as related to technical education for young people in compulsory elementary and secondary education.

The adoption of the Elementary Education Act (1870) and imposing of the compulsory elementary education (1880) in Great Britain gave impulse towards the two most important dynamics, which greatly influenced the development of school-based technical and vocational education. The first one was the establishment of the local School Boards from 1872. The second dynamic was that after 1872 many SchoolBoards also established higher grade schools. They coped with the growing demand to form the post elementary education, which was used by working class children, and to impose the technical bias into the curriculum of these schools.

Technical Education Act, 1889 allowed higher grade schools and secondary grammar schools, except most liberally endowed grammar schools, to take advantage of aid offered them by the government to develop science courses. Both types of school extended this work from 1889 through legislation, which allowed county and borough councils (created the previous year) to supply and aid technical education. Meanwhile, throughout this period the larger and wealthier grammar and public schools largely remained aloof from education in science and technology. Nevertheless, the broadening of secondary school curriculum towards science and technical courses proceeded slowly. That resulted in “bookish” culture of the state-maintained secondary schools and the lost opportunity of higher grade schools in promotion of technical education.

However, there was a continued drive on the part of local authorities to meet a growing demand for extended education based on occupational bias. Some of the local authorities pioneered two new models of upper-elementary education. First, from 1905, in London, an alternative to secondary education was offered for those winning scholarships in elementary school via transfer to a central school. Second, also from 1905 with immediate finance provided by the Board of education non-selective junior technical schools sprang up.

The large, skill-intensive industries and their associated industrial relations were obviously important in determining key structures in the overall provision of technical and vocational education. But so, too, was the role of government in setting the priorities for education, the place of local authorities, which were the key to the kind of specialist technical schools that existed in England and Wales beginning from 1905. Urban authorities also were always most likely to be interested in their development and supporting them.

Key words: compulsory education, school level technical education, central schools, junior technical schools, England.

Formulation and justification of the relevance of the problem. The place and the role of technical education has been a central component of the discussions among the educationalists, pedagogues, entrepreneurs, sociologists, historians and politicians since the first technical revolution – the steam innovation. It is not less important nowadays, in the course of choosing the proper directions how to response the Nano-technologies of the forth technical revolution and solve the acute problems of teaching young generations to cope with high level of life-style standards. The historical experience of Great Britain may help not to make mistakes in our country.

Analysis of recent research and publications. During the nineteenth century many West European countries and the USA were in the active process of the national education systems forming. As W. Richardson noticed in his comparative survey, Great Britain was one of the last industrially developed countries to adopt the Elementary Education Act (1870) and to impose compulsory elementary education (1880). Analyzing the ways of technical and vocational education in the countries with different economical level, the researcher also pointed out that educational systems forming was largely depended both on the political, social, military level of each country as much as on the governments' involvement and initiatives [5, p. 30]. For example, largely agrarian Prussia introduced an integrated system of state funding schools into broad operation before 1850. Sweden with high level of poverty obliged required social communities to organise universal schooling since 1840s. In France in 1801 the government passed the primary commune schools' creation law, and in 1806 the lyceums and colleges creation law with seven years course of studying, in 1833 the government passed the people's common education law and each community had to form and support a school. Up to 1860-s schools came into being all over the country. In Denmark, the elementary education law was passed in 1849. Japan did it in 1872, four years after it had released from feudal joke and tried to set European models of state-sponsored schooling in its own country. In the first half of the XIX century the USA was in the process of school compulsory education development, and the matter of common school establishment was the key point in nation building, though the country has just started its way from the vast and rural to industrialized economy.

The purpose of the article is to outline the main features of the technical education of the late nineteenth – early twenties century England, its strengths and weaknesses, and also to review the policy and practice of the government and local authorities as related to technical education for young people in compulsory elementary and secondary education.

The main material of the study. Though Great Britain was the most industrialized country in the world in the nineteenth century, the British government kept aside to join or lead this process during the larger part of the century. Up to the 1860s, school organisation in England was in the hands of ancient charitable schools gradually brought under a measure of state regulation. Alongside, it also was under a plethora of small proprietary schools serving fee-paying pupils and church schools providing a basic curriculum for a majority of the larger population of rural and urban poor [5, p. 3].

The two most important dynamics followed the adoption of Education Act 1870 in England, which greatly influenced the development of school-based technical and vocational education. The first one was the establishment of the local School Boards from 1872. The Boards had the duty to oblige the attendance of children between the ages of 5 and 12 with the option of part-time attendance from 11. But in practice this measure was only fully implemented during the 1880s. The local School Boards were responsible for the elementary schools alongside with the expanding number of church schools. The statistics shows that in 1902 there were approaching 6 000 elementary board schools but over 14 000 elementary church schools, although the total number of pupils in the two sectors was similar due to the larger size of most board schools. The school boards managed to establish sufficient number of schools in different areas and to obviate unequal and inequitable provision at schools.

The second dynamic was that after 1872 many School Boards also established higher grade schools. Therefore they were under elementary regulations for curricula and funding, they coped with the growing demand to form the post elementary education which was used, almost exclusively, by working class children [4, p. 18].

Higher grade schools were an extension of the elementary schools run by the School Boards. They generally provided education to the age of fourteen or fifteen and were seen as recruiting elementary school students from the lower classes who would be going into jobs as soon as they left school but wanted more training and education than the elementary school could provide. They only existed in some areas, mainly the cities, and varied from area to area.

In the late decades of the nineteenth century in England, there was much spoken about the organization of schools and the curriculum they should provide. The place of technical education was a central component of these discussions [2, p. 34; 3, p. 4; 5, p. 5]. From the 1880s technical and vocational education became more prominent in many countries with the developed economies and was encouraged by the governments, philanthropists, and private organizations. Britain's system of technical education was at that time seriously deficient in relation to key competitor nations: Germany and the USA. At this point, education practices in neighboring countries, or further afield, have influenced decisions or outlook of the British government developing capacity in technical and vocational education at school level. As a result of this and other decisions taken by the British parliament a legislation was passed (Technical Education Act, 1889) that allowed higher

grade schools and secondary grammar schools, except most liberally endowed grammar schools, to take advantage of aid offered them by the government to develop science courses [1, p. 14–15]. Both types of school extended this work from 1889 through legislation, which allowed county and borough councils (created the previous year) to supply and aid technical education. Meanwhile, throughout this period the larger and wealthier grammar and public schools largely remained unfriendly to education in science and technology.

The higher grade schools willingly placed an emphasis on scientific and technical subjects in their curriculum, partly because they could apply to the Science and Art Department for grants for science and art subjects, although some did devote considerable time to «literary» subjects. The higher grade schools were seen as promoting secular education through the Board Schools at the expense of the church schools and there was growing concern from both the powerful Church of England lobby within the Conservative Party and also from Conservatives who feared the radicalism that might be fostered in the working class if secular education took a dominant hold.

First, the classes organized by the School Boards were considered disallowed for Science and Art Department grants. Then came the Cockerton judgment; a famous incident in the history of education. Meanwhile, in May 1900 the «Higher Elementary School Minute» was issued by the Board of Education, partly to clarify the position of the higher grade schools whose status had been made unclear by the ongoing «Cockerton» decision, and partly to continue the clarification and re-organisation of the education system and ensure that the School Boards did not intrude into secondary education. This followed the policy of the acting (and substantive holder of the post from April 1903) Permanent Secretary of the Board of Education, Robert Morant. The Minute laid down a rationale for a version of the higher grade schools – the higher elementary schools which would be clearly within the elementary school system not the secondary (which Morant was already planning to reorganise) and would teach no pupils beyond fifteen. They would provide a form of elementary education beyond the ordinary elementary school and would in general have a technical and scientific bias designed to meet the needs of industry and employers.

The four-year course of instruction was based on science and all the pupils were trained to make accurate measurements and perform and record simple experiments, although they also took elementary Mathematics, a foreign language and Drawing. Classes were to be relatively small; «as a rule, confined to thirtyfive, and may not exceed forty». It has been argued that the higher elementaries were just a way of appeasing a working class desire for secondary education while avoiding putting their children into the ‘real’ secondary schools, but their establishment was also a reflection of the perception that England was lagging well behind other European powers in its modern technical and scientific training [3, p. 3–5].

At the creation of local authorities in 1902, higher grade schools were permitted to become «secondary» establishments (when they were relabeled «county» or «municipal» secondary schools) under county or borough control. This secondary designation resulted in increased income from the Board of Education and increased status, benefits, which were extended in 1904 when they began to be funded to provide a four-year course for the 12/13 to 16/17 age group. However, this was the extent of the Board’s willingness to expand the range of secondary schools at this time. Instead, local authorities were encouraged to establish higher elementary schools, designed to offer new places to 12–15 year olds but at reduced capitation since they fell under the elementary funding regulations. However, most local authorities perceived higher elementary schools as expensive to maintain and as unnecessary «intermediate» tier [1, p. 55-56, 60]. By 1917, only 31 had been established in England and 14 in Wales [5, p. 5].

In 1904, The Board of Education, created in 1899 as the single government department for schools, instituted new regulations for the curriculum of secondary schools that decried a drift in favour of science in secondary schools [5, p. 7]. This ran contrary to the labour market requirement for clerks and teachers, rather than artisans or technologists, and the immediate effect was to diminish the scientific and technical orientation of the higher grade schools, in favour of languages and mathematics – traditional priorities of grammar schools.

Meanwhile, opportunities for study science and technology remained limited for those elementary school pupils winning scholarships either to the endowed grammar schools or, from 1904, to the new four-year course at county and municipal grammar schools. After 1907, there had been some reaction against the regulations, which three year earlier had brought about a renewed emphasis on languages and mathematics. That followed that in 1912 the President of the Board of Education ensured that he wished to encourage a broadening of the curriculum of secondary schools «to give them an increased bias of a commercial, industrial or agricultural tendency according to the needs of the various localities». By 1913, 74 out of 898 secondary schools had a definite vocational bias and urban local authorities attempted active experimentation from this time [1, p. 72]. Nevertheless, the broadening of secondary school curriculum towards science and technical courses proceeded slowly. That resulted in “bookish” culture of the state-maintained secondary schools and the lost opportunity of higher grade schools in promotion of technical education [5, p. 5; 2, p. 38].

However, there was a continued drive on the part of local authorities to meet a growing demand for extended education based on occupational bias. The church schools were less interested in such innovations [8, p. 129]. Some of the local authorities initiated two new models of upper-elementary education. First, from 1905, in London, an alternative to secondary education was offered for those winning scholarships in elementary school via transfer to a central school. Central schools were under «elementary» funding rules and taught the

12–15 age group. London and Manchester led the way but other authorities also adopted this model, for example, Rutland, Warwickshire and Gloucestershire, and central schools were formally encouraged by the Board of Education from 1912 [1, p. 18]. In Manchester economic considerations dominated: how to secure low cost expansion of school places (i.e. those outside the secondary regulations) at the age of 11+ for those securing a scholarship. London also adopted a selective mechanism but here the aim was to give pupils «the definite bias towards some kind of industrial work, while insuring that their intelligence shall be fully developed» [5, p. 12]. By 1912, 312 such schools had been established in the capital containing 42 separate departments (19 commercial, 16 industrial and 7 dual) [1, p. 98–99]. Its further boom they received after adoption the Educational Act 1918 that extended the upper age limit of pupils in elementary schools to 16 (or later in special circumstances). This measure had the effect of encouraging many other local authorities to establish, from the mid-1920s, non-selective, non-fee levying central schools for 11–16 year-olds. A decade later approximately 1.5% of pupils left elementary schools for selective central schools [7, p. 272].

Second, also from 1905, at first in the Northern cities and with immediate finance provided by the Board of education [1, p. 105; 8, p. 2] non-selective junior technical schools sprang up. These catered for the 13-15/16 age group, bridging the period between the end of the elementary schooling and the provision of apprenticeship at 14 or 16. In one study of 16 major industries, it was found that the starting age of the apprenticeship had risen steadily during 1909–1925 to a point at which 74% of apprentices started at age 16 or older [6, p. 4]. Compared to other forms of elementary education, they were expensive to equip and difficult to staff but local authorities such as Leeds and Middlesex had a clear preference for such institutions compared to central schools [5, p. 5]. Some were trade schools specializing in a particular occupation (such as dressmaking and millinery for girls and engineering and building for boys). Others especially after revised policy of guidance was issued in 1913, provided more general or practical education for «artisan or other industrial employment», so as to allay criticism that pupils were being encouraged to specialize at too early an age. However, external examinations were not permitted and the provision had to reflect the local structure of occupational opportunity. Junior Technical Schools charged fees, usually 3-pound sterling per annum, and were most often an adjunct of technical college. 37 such schools were recognized in England and Wales in 1913/14, rising to 248 in 1937/38 (of which 18 were in Wales). In the mid 1920-s, 0.3% of children aged 11–16 were taught to be in such schools and throughout the 1930-s a steady 4% of elementary school leavers (2.6% of boys and 1.4% of girls) proceeded to them at the age of 13 [6, p. 39]. As the proceeding figures demonstrate, a small minority of the relevant age group attended central and junior technical schools. (In Germany at this time the take-up of part-time places in vocational schools among the 14+ age group was 66%). Nevertheless, they were able to wield influence as models of specialist upper elementary schooling. Junior technical schools were popular with parents, and both central and junior technical schools, with their avowedly practical orientation, appear to have open up new routes to employment.

Both JTS and occupationally orientated central schools were popular before the Great War, with their clear links to employment, the opportunity they presented to enhance an elementary education and, for some, to bridge the gap from leaving school (at 13) to securing an apprenticeship (at 14 or, more usually, 16). Significantly, their specific appeal to «skilled worker» households was subsequently transferred to secondary technical schools and much later to City Technology Colleges.

Conclusions and prospects for further researches of directions. The large, skillintensive industries and their associated industrial relations were obviously important in determining key structures in the overall provision of technical and vocational education. But so, too, was the role of government in setting the priorities for education, the place of local authorities and the education professions in providing it (and arguing over it), and the effect of public opinion on what was being offered. Local authorities were the key to the kind of specialist technical schools that existed in England and Wales beginning from 1905. Urban authorities were always most likely to be interested and, up to 1944, such schools were formally «elementary» (thus, compared to «secondaries», more influential in approach and less well funded). One innovation (from 1905) was the selective «central school» recruiting at 11+ and in London, a stronghold, the orientation among more than 300 such schools was toward industry and commerce. Other urban authorities (also from 1905) established JTS which levied fees (their equipment made them more expensive to run), where the aim of the two- or three-year course, recruiting at 13+, was other preparation for specific trades or a more general education for would-be «artisans». It took some time for employers to become interested in new technical oriented schools with technical and vocational bias because of their vitally practical nature, and because they would obviously begin to supply a superior type of youth for apprenticeship – one already trained in certain skills as well as possessing clear attitude for the practical work of the factory or work-shop.

BIBLIOGRAPHY

1. Banks O. Parity and Prestige in English Secondary Education / O. Bank. –London: Routledge and Kegan Paul. –1955. –242 p.
2. Meriel V. The English Higher Grade Schools: Reassessment / V. Meriel. – University of Leicester, Ph. D. Thesis, 1987. – Published by ProQuest LLC, 2015. – 388 p.

3. Keathy J. Government policy towards secondary schools and history teaching 1900-1910 / J. Keathy [Електронний ресурс]. – Режим доступу: https://www.history.ac.uk/history.../history.../government_p...
4. Morish I. Education since 1800 // Ivar Morish/ – London: George Allen and UnwinLTD –1970. – 244 p.
5. Richardson W. English Technical and Vocational Education in Historical and Comparative Perspective: Considerations for University Technical Colleges // W. Richardson – London: Baker Dearing Education Trust, 2010. – 46 p.
6. Sanderson M. The Missing Stratum: Technical School Education in England, 1900–1990s // M. Sanderson. – London: the Athlone Press, 1994. – 235 p.
7. Sanderson M. Education and the labour market / N. Crafts, I. Gazeley and A. Newell (eds.). Work and Pay in Twentieth Century Britain // Oxford: Oxford University Press, 2007. – P. 264–300.
8. Simon B. Education and the Labour Movement, 1870-1920 / B. Simon. –London: Lawrence and Wishart, 1965. –388 p.

REFERENCES

1. Banks, O. (1955). Parity and Prestige in English Secondary Education. – London: Routledge and Kegan Paul.
2. Meriel, V. (1987). The English Higher Grade Schools: Reassessment. – University of Leicester, Ph. D. Thesis.
3. Keathy, J. (1990-1910). Government policy towards secondary schools and history teaching 1900- 1910 / J. Keathy [On-line resource]. – Access mode: https://www.history.ac.uk/history.../history.../government_p...
4. Morish, I. Education since 1800 (1970). London: George Allen and UnwinLTD. 5. Richardson, W. (2010). English Technical and Vocational Education in Historical and Comparative Perspective: Considerations for University Technical Colleges. – London: Baker Dearing Educational Trust.
6. Sanderson, M. (1994). The Missing Stratum: Technical School Education in England. – London: the Athlone Press.
7. Sanderson, M. (2007). Education and the labour market / N. Crafts, I. Gazeley and A. Newell (eds.). Work and Pay in Twentieth Century Britain //Oxford: Oxford University Press.
8. Simon, B. (1965). Education and the Labour Movement. – London: Lawrence and Wishart.

ВІДОМОСТІ ПРО АВТОРА

ГОЛОВКО Ірина Олексіївна – викладач кафедри іноземних мов Кіровоградського національного технічного університету.

Наукові інтереси: історія становлення та розвитку європейської освіти (кінець XIX – початок XX століття).

INFORMATION ABOUT THE AUTHOR

GOLOVKO Iryna Olexiyivna – Lecturer of Foreign Languages Department at Kirovograd National Technical University.

Circle of scientific interests: the history of technical education forming and development in Europe (the end of the nineteenth – beginning of the twentieth centuries).