SOVIET HIGHER EDUCATION TODAY

Beatrice King

IT is a far cry from higher education in 1920, two years after the revolution, to higher education in 1962—a distance of nearly half a century. During that period there have been many changes and considerable developments. But flexibility has been, and continues to be, a characteristic of every stage and sphere of Soviet education, a flexibility consciously and deliberately applied, and resulting from the strength that stems from a clearly defined goal universally accepted. Thus changes signify that a method right at one stage has ceased to be adequate for a new situation and its new demands; we in Britain should not therefore be misled by their sharp, even brutal, self-criticism into a belief that in the Soviet Union education has failed and is failing to deliver the goods.

It is a paradox deserving some thought that a sweeping reorganisation of Soviet higher education is now in progress, just when Western educationists are awakening to its past achievements and to the need to study it. In the Soviet Union the solid achievement of the past years is taken for granted and forms the foundation for the next stage, but it is necessary to prune away dead wood in order to encourage further growth and development. Anyone who is interested in the pressing problems of higher education in Britain will do well to give the closest attention to what has been done in the Soviet Union not so much in the past as just in this last year.

In numbers alone, the development of higher education in the USSR has been staggering. In 1961 there were 739 institutions with 2,400,000 students; that is 111 students for every 10,000 of the population, twice the proportion in Japan, and 2.8 times that in France. The country now has thousands of trained specialists in every field, and still they do not satisfy the national need either in quantity or quality. The criticism that was levelled against the secondary schools in 1958 (of being out of touch with life) was also levelled at the universities, and provision was made in the Education Act of that year for a reform of higher education as well as of the school system; this reform went far beyond the changes introduced in entrance requirements, which gave priority to applicants with two years working experience.

The country-wide discussions of the past five years that have involved all branches of industry, and the rethinking on methods of economic organisation and planning, and on goals, that led to formulation of the seven-year plan for 1959-65 and the twenty-year plan embodied in the programme of the Communist Party, have stirred up Soviet higher education at all levels. There has been a growing excitement that has not only caught up the younger members of the faculties, but has involved directors of factories, works managers and research workers; and a wave of experiment in the organisation and methods of higher education and its content has swept over the higher education institutions. It is most vividly exemplified in the university of science founded in Novosibirsk under the Siberian Department of the Academy of Sciences. It is also reflected in the wholesale movement of agricultural institutes out of the towns and on to the farms as fast as buildings can be provided. The keynote is the unification of theory and practice. Graduates must have know-how as well as knowledge, and must become creators of the new as well as users of the knowledge already acquired.

Responsibility for higher education has been decentralised to the Union republics; and the training of all specialists and technicians has been united by putting specialised secondary schools under the control of the Ministries of Higher Education.
The new look in Soviet higher education, resulting from the flood of criticisms and proposals for change, was embodied in a new statute for higher educational institutions (issued on March 1, 1961), replacing the regulations adopted in 1938. Promulgation of the new statute was followed by a number of separate measures which combine to change the whole character of Soviet higher education. One was a complete reorganisation of the USSR Academy of Sciences and the system of co-ordinating scientific research, placing on the academy a special responsibility to lead research in the universities and other higher educational institutions. A second measure put increased emphasis on expanding university research as the key to raising the standard of teaching and the qualifications of graduates. The whole sequence was completed with an all-Union conference of higher education held in July 1961, which reviewed the position in all the main fields—university, technical, medical, pedagogical and the arts. The report of the Minister of Higher Education, Professor Elyutin, was self-critical in the extreme: ‘There are still many shortcomings and unsolved problems. . . . We must in every way improve practical training. . . . The first concern of everyone connected with higher education must be to develop the student to be independent, active, able to link theory with practice. . . . and this must be done wherever he is and whatever he is engaged on. The schoolmaster attitude must be finished with. . . . we have not learned the right way to evaluate and develop the individual creative abilities of the student. Often these abilities do not get sufficient scope for their development. We must find more flexible ways of training cadres. . . . the methods of studying science must be improved. There is a continuous accumulation of new facts, while the training period will always be limited to a definite time. It is therefore necessary for professors to show more initiative and creativeness in improving syllabuses and curricula; firmly excluding secondary material. . . . It is time we began assessing the results of higher education not quantitatively nor even just qualitatively—though both are important—but by the actual work done by graduates, by the results that obtain in the development of the national economy, science and culture. This new criterion lays a double responsibility on higher education institutions not only for their own work but for the work of their graduates.’

The Minister’s report was followed by a long discussion. The contributions bring home how nonsensical is the conception fostered in the West of the uniformity of Soviet life and the absence of initiative and variety in education. It would need a book to describe adequately the diversity of approaches to problems and ways of solving them brought out in this discussion. There were many examples of local initiative in higher education, and not only by the universities and colleges, but by factories, collective farms and trade unions. As in other countries, the obstacles to initiative in the Soviet Union often come from high up—from a Ministry of Education, for example, or some other state department. A case in point was the effort of the Moscow Institute of Constructional Engineering to set up a designing bureau on the students’ initiative; at the time of the conference they had not received approval or a decision from the officials of the Ministry of Higher Education. Long-drawn-out discussion and argument had wasted much time and energy. The students wanted to set the bureau up in the diamond-mining town of Mirny, in Yakutia, as a general technical faculty for training workers for the development of Mirny into a major industrial centre. The Mirny development offers great opportunity for research in the technology of building in Arctic conditions and permafrost. Students for the project had been selected by the Komsomol committee of the institute. There were good engineers available in Mirny, so that only two-thirds of the staff needed would come from Moscow, mainly for mathematics, physics and history. The students also obtained the support
of the Yakutsk regional committee of the Communist Party, but they had not yet overcome the resistance of the Ministry, whose pigeon-holes had engulfed all the documents. Though the incident is not unique, experience shows that it is a minority of initiatives that suffer the same fate.

The conference had before it suggestions that the work of science chairs in universities and institutes should be joined with that of research institutes in the same field. Examples of the kind of co-operation implied were given. Thus the Moscow Physics and Engineering Institute and the Magnitogorsk Institute of Mining and Metallurgy have developed extensive co-operation, with 14 joint research groups in metallurgy, which were working in 1960, on 50 different projects. This Moscow institute had similar associations with research institutes in other fields. Co-operation, it has been found, reduces the cost of research. This was particularly noted in the case of the Kuibyshev Higher Technical Institute, to which a number of industrial research establishments had been handed over during the reorganisation of management. Such co-operation was further urged as a means of facilitating the use of computers, in which the Soviet Union lagged behind both the USA and Britain.

Rabfacs (workers' courses) have been reintroduced as a method of preparing workers for higher education; because today there are no untutored workers, most having completed at least seven-year school, and very many ten-year school, the rabfac courses are on a higher level than those of the '20s, and can complete their tasks much more quickly than in the old days, in as short a period as three months.

The Magnitogorsk Institute of Metallurgy, set up at the Magnitogorsk Iron and Steel Works, is an example of the varied ways being employed to train specialists. The staff of the Institute of Metallurgy give active help with the production problem of the works, the professors working on the solution of problems of major importance. In their turn, about 100 staff engineers and technologists from the works combine their production activities with teaching in the institute. Together, works and institute have set up several joint research groups to work on urgent problems facing the works. In this institute a student spends the first two years of the five-and-a-half-year course in the works, studying in the evening three days a week for four hours a day. The following two years and the first half of the fifth year are spent on full-time day study in the institute. The last year is divided between six months pre-diploma production practice in the works and six months preparation of a diploma project. During the first year of work the students work on a variety of sectors in the works. Specialised training begins in the second year after three to five months of general training. As workers, the students are members of a normal works team or group, and become members of the works collective. This working as members of a works group, being influenced by and influencing its aims and purposes, is held to have a beneficial effect on the moulding of the future specialist.

The Leningrad Electro-Technical Institute has introduced an innovation of its own, designed for closer and continuous links between institute and factory. It is strongly recommended to managements to have a scientist cum research engineer from the institute in the factory as a permanent representative of the institute, to advise on problems and to encourage post-graduate research by the staff engineers. In the institute they have organised groups of selected fourth-year students willing and anxious to work on broader engineering problems than those in the official syllabus for their course. In April 1961 there were already 150 students in such groups, following an extended individual study plan. The aim is not only to train people capable of dealing with problems as they arise in the works, but also to guide factory innovators and experimenters to achieve the radical transformation of production demanded
by the future. Three basic fields of training have been planned for these selected students: radio-electronics, automation and computer technique, and electrification and automation. It is compulsory for these students to take part in the research work of the chair at the institute. Their practical work is done in the factory side by side with its regular workers.

Just over half of Soviet students today are extra-mural, and this is becoming the dominant form of higher education. In addition to 30 specialised correspondence and evening institutes, there are 880 extra-mural departments in the universities and colleges. For many years a major problem for extra-mural, particularly correspondence, students was their remoteness from the centre of study. This has been overcome in part by opening extra-mural departments at almost all higher education institutions, and by opening branches of these departments in towns without colleges, or at major factories and construction sites. Thus evening faculties have been opened at the Electrostal Works, near Moscow, and the Lipetsk Iron and Steel Works; correspondence faculties on the oil fields of the Tatar and Bashkir Autonomous Republics; a general technical faculty in the Arctic mining city of Norilsk; and so on.

Experience of correspondence training of engineers has shown that the students find great difficulty in mastering the general theoretical course of the first three years. It has been found expedient therefore to arrange for more frequent meetings and interviews with tutors in this part of the course than in the senior years. This problem is also being tackled by the setting up of general technical faculties, as a rule under full-time institutes which can give the students both good teachers and well-equipped laboratories, and thus much more personal tuition and supervision. The Ukraine, always to the fore in educational matters, has been particularly successful in this direction. The country has been divided up into regions according to type of industry, and in each region a general technical faculty has been established; altogether there are 58, embracing 70 per cent of the correspondence students in the Ukraine. Being located at the students’ place of work, the faculty is able to provide personal teaching and supervision; students attend three evenings a week, and in this way the correspondence student is being brought nearer to the position of the extra-mural evening student.

The reorganisation of higher education applies as much to the arts and humanities faculties as to the technical and scientific. The past few years have brought about a number of changes, for example in the institutes training teachers for the schools. Teaching, as Professor Elyutin said in his report, demands not only a gift but dedication. Whereas formerly there has been a tendency to try for a teacher training institute as the next best thing if efforts to get into a technical institute failed, selection has improved, and the composition of the student body is now better. The requirement of two years’ working experience has played a big part here; 41 per cent of the students had now had previous working experience. Training in the institutes has been made more professional; the amount of time devoted to teaching practice has been doubled, and the training of teachers in general technical subjects for the new vocational teaching in the general schools has been introduced. Another forward step has been the opening of departments in the institutes to train teachers for the primary schools, who had previously been trained only at specialised secondary schools giving the equivalent of two years further training.

Great emphasis is being put on improving the scientific training of future teachers; a prerequisite for this, however, is to improve the quality of the teaching staff of the institutes. Here the biggest single drawback is the absence of research facilities in most teacher training institutes, which handicaps the development of the staff.

22
Student and staff research are felt to be essential to further improvement of all higher education. For many years there have been student scientific circles in universities and institutes, where papers are read on problems and their solutions, work that went well beyond the syllabus. This, however, was voluntary. Now, in addition to encouraging this type of research, there is increasing emphasis on incorporating actual research in the syllabus. This is a fundamental principle in the new university of science in Novosibirsk, where each student works in an academy research institute as well as in the university. To some extent this is the equivalent for science students, who are being trained as future researchers, to the practical factory training of the engineers and the school practice of future teachers. Today over 200,000 full-time students are simultaneously engaged in research, and a special national award for the best student-research is given. In the academic year of 1960-1, 1,180 students had work accepted, 50 papers were adjudged worthy of the award; as some of the work was group research, 113 students received medals.

Though Soviet higher education is thoroughly professional or vocational, it does not ignore the fact that students' interests are not limited to their studies. Student amateur circles and general cultural activities are encouraged. In some universities and institutes optional courses of a general cultural character are organised. Here the Donetsk Polytechnical Institute holds a leading position. After many different ways had been tried of involving students and staff, a 'faculty of culture' was instituted by the staff in 1959, providing a two-year course, without a set syllabus and without examinations. The first year was designed 'to open the door to beauty to the student' with the aim of 'enlarging and enriching his spiritual world and developing aesthetic taste'. The methods adopted were those of lecture-concerts, discussions and debates. The absence of a syllabus did not mean an absence of planning, for haphazard activity would not serve the desired purpose. The course was organised in several cycles. In the first year music received the fullest attention, with less time given to literature, graphic art and aesthetics, in that order. Nine lecture-concerts were held, there were two debates on aesthetics and the role of art in a socialist society, as well as lectures on the theatre and on the latest achievements of science. The experience of the first year convinced the staff that they must not limit the course to lectures. A music section and an art section were organised to encourage active participation and performance. The great demand for music was met in a variety of ways through performance as well as appreciation talks, and by lectures on particular works that linked them with the life of the people past and present. Members of the sections now perform not only for themselves, but for fellow students and at workers' clubs.

The students of the Novosibirsk Teacher Training Institute themselves took the initiative in setting up a 'University of Culture'. Most of the students would be going to rural schools; it would, they thought, be no handicap to their teaching of algebra or botany in the village school if they were also active in the village club teaching dancing or singing or acting. So the 'University of Culture' began by teaching the students attending to conduct a choir, to play folk instruments, to sing and to dance (folk dances). They drew their teachers from among the students of the local conservatoire. In 1961 a second 'faculty' was organised for the social and political sciences. Some 20 future teachers joined a class on public speaking. For those who had no talent or inclination for music or public speaking a physical culture section was set up, whose members skate and ski, study coaching and practise boxing and wrestling and light athletics. The 'culture university' rather lost its original meaning. Not the least put out, the students renamed it the 'Institute of Social Professions', and aimed to get every future teacher in the institute to follow one course or another.
DISCUSSIONS AMONG SOVIET ECONOMISTS
1960–1962
R. Bellamy

The author spent a year in 1960-1 in Moscow doing research in economics. In this article he describes some of the discussions among Soviet economists in which he participated and talks he had on different problems of theory and practice with leading Soviet economists.

This article attempts to record some impressions of the content and climate of discussion that I formed while engaged in a year's research work in 1960-1 as a guest of the Institute of Economics of the USSR Academy of Sciences. In that Institute (which deals primarily with the economics of socialism) and in its sister Institute of World Economy and International Relations (which, as its name implies, deals with the non-socialist world) I had many formal and informal sessions, as I also had, in a much smaller degree, with some members of the faculty of economics of Moscow University.

First, a word about the 'climate' of discussion. As was pointed out in the speech of Ilyichev at the 22nd Congress of the Communist Party last November, it was perhaps theoretical work in the social sciences which suffered most from the 'cult of the personality' and its accompanying dogmatism. While one would not expect the effects of this to be overcome rapidly, any comparison of the learned journals today with their counterparts of 10 to 15 years ago shows a significant change. Of course, in work done at the empirical level (and this is clear from the journals that deal with the problems of particular industries) the dogmatic features were always less marked. Studies of the capitalist world also show marked improvement. To illustrate: when I opened a discussion myself at the Institute of World Economy on economic developments in post-war Britain, and referred to the growth of parasitic forms of economy in distribution and services, it was refreshing (and salutary) to be reminded that in the Soviet economy too, as its standard of living rose, the share of services was growing and would grow further.

But it would be inadequate, I think, to interpret new developments in the climate of thought solely in terms of a rectification of past attitudes. Rather their cause is the emergence of new problems, or at least of problems that were less important in the earlier period of the pre-war five-year plans. Two have loomed especially large. The first, dating partly from an earlier period, concerns the rationality of investment projects; the other (and of later date) concerns pricing policy and the law of value. What has happened here, it seems to me, is not, as some Western writers assert, a belated discovery of the truths of 'marginalism'. It is, of course, true that in these discussions there has been frequent reference to a maximising principle, reflected in propositions which speak of 'producing a given output with the minimum direct and indirect labour cost'. But the maximising principle is the formal shell, not the kernel, of 'marginalism'. What is involved here rather is that a more accurate evaluation of 'social costs' (usually expressed in the phrase 'national economic costs') should be made in comparing alternative allocations of economic resources, and that prices, in terms of which the resources are measured, must therefore accurately reflect costs. In the 1930s the method of planning might be described (at the risk of some over-simplification) as driving forward vigorously on a limited number of fronts, and achieving key targets...