

■ A member of the Manchester Education Committee of Britain reports on Soviet vocational schools.

INSIDE RUSSIA'S SCHOOLS

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An unimposing stone-faced building, a heavy door and then, just inside a dark entrance hall, a "shrine" .. we were entering Vocational Technical School Number One in Moscow.

The "shrine," the director explained later, is the focal point of the school. It is lined with trophies and prize lists and topped by the ubiquitous portrait of Lenin. The Red Flag stands in the centre guarded by a privileged pupil.

A week later, as we went into the entrance hall of a new school in Leningrad, we were faced, on the wall, with an elaborately embossed "creed" — the code of conduct that pupils have to learn and recite.

In a place of honour in these same schools we saw a dozen or so photographs with citations displayed in a fram-

ed merit board. The photographs were of the schools' star pupils. The merit board was a feature of all the Russian schools we saw and a teacher whose record was outstanding was also included on one. Ubiquitous, too, was the list of laggards, pinned to school notice-boards for all to see.

Our interpreter unblushingly remarked, "They are given the works" — presumably by their fellow pupils.

The merit boards provide a strong incentive for teachers as well as for pupils. Teachers are paid a bonus for examination successes of the young people in their charge, and, in reverse, pupil's failures influence inspectors' reports on individual teachers to be demoted or even to lose their jobs.

These are some of the sym-

bols of the motive force of Soviet education. Here a religion — Marxism-Leninism — is combined with material incentives and a deeply embedded ideological fervour to form an education system that is skilfully tailored to meet the needs of the State.

The problems that beset us in Britain when attempting to plan manpower do not exist. In Russia it is simple: **THERE IS A PLAN.** This is known to everyone, displayed diagrammatically on public hoardings and given meaning as yearly targets are visibly met.

In a country where the demands of the State override everything, manpower planning — even with a population approaching 220 million — becomes merely a matter of logistics. State ownership and control over the purse make planning still more precise. Through careful streamlining of education and training, and by relating pay to education "grades," each branch of the economy receives (more or less exactly) the intended quota of recruits.

In theory, the fifteen separate Republics of the U.S.-

S.R. have full legislative powers: there are separate Ministries of Education. In practice, all schools, together with timetables, curricula, textbooks, teaching methods and standards, are controlled by the Ministry of Education in Moscow. For higher and specialized secondary education there is one central Ministry only.

Compulsory full-time education begins at seven. In 1958 Khrushchev recast the system, bringing a new emphasis to practical work in factories, mines, farms, building or public services as a required ingredient of all secondary education. The seven-year compulsory "incomplete secondary education" and the ten-year "complete secondary education" are now being replaced by eight-year and eleven-year courses. With certain exceptions students may not enter higher education until they have had one-and-a-half to two years' full-time employment — perhaps in office, farm or factory — as well as having a certificate of completed secondary education.

School classes are unstreamed, but promotion

each year is dependent on a pass mark and is not automatic with age. A recent development, now going strongly ahead, is in special schools for those who show exceptional academic talent. Places are competed for at about the age of twelve.

Exceptions are also made for those with special talent for art, music or ballet. "French schools" and "English schools" are also proving popular where selected children from the age of seven have all lessons in the chosen language.

At fifteen or sixteen about half of the pupils are siphoned off from the main stream of secondary education into vocational technical schools. These schools are directly associated with a particular enterprise — an automobile factory perhaps, a metal works or foundry, a collective farm, a hospital, a central post office. Their pupils are essentially craft apprentices undergoing compulsory training along with part-time education. Only a few, perhaps one in ten in the lowest ability ranges, go from the eight-year schools into jobs

for which no preparatory training is required or given.

In a vocational technical school specializing in communications which we visited in Moscow, boys and girls were together in ordinary lessons, but all the vocational study was in single-sex groups. The reason appeared to be that girls would not be able to lift heavy equipment: instruction in television repair work and cable-laying was therefore reserved for boys. To balance this, girls only were allowed to learn how to install and repair telephone exchanges. Strong boys were not to be "wasted" in training to do work that girls could do!

About half of all pupils in the vocational schools join evening courses in order to gain the certificate of completed secondary education. Yuri Gagarin was trained as a foundryman at a vocational technical school, studied simultaneously at evening classes, and earned himself a place in a specialized institute of higher education — and from there to the first manned sputnik. His portrait — a model for Soviet

youth — is in every vocational school.

This careful channelling of future craftsmen and technicians into distinct occupations is the foundation of the new economy. There is nothing haphazard; recruitment is not affected by booms and slumps, by adolescent fashions, parental preferences or other variable factors.

Children are expected to do a prodigious amount of homework and there is probably a good deal of overwork and strain. Pupils have to clean their own classrooms, workshops and equipment — even coming in on Sundays to scrub floors and clean windows — and are awarded merit marks for this. Participation in inventors clubs, hobby clubs and other out-of-school activities is virtually compulsory. Marks are gained for examination successes, for good behaviour, tidiness and good work in the clubs. All privileges depend on obtaining good marks and the children we saw appeared to be working keenly and to be full of normal high spirits out of school.

Whether those who are black-listed are teased, bul-

lied or merely sent to Coventry we could hardly ask. The education grade (on a six-point scale) determines admission to higher education and recruitment to all forms of employment. Although grades can be improved by part-time study at any age, wages depend on grades and, except in teaching, do not normally increase with length of service.

Higher up the ability scale recruitment to technical posts and semi-professional occupation (including nursing and most school teaching) is equally logical. There are teacher training "schools," schools for nurses, schools of art and design, and schools which train officeworkers and aspirants to other commercial or social work.

In Tbilisi I visited a school which trained girls (no boys) for the printing trade. The 250 girls were being taught to become compositors, typesetters, linotype operators, and printers — occupations which the unions in Britain restrict to men.

My visit to this school was unscheduled, made at my own request and alone. Unexpectedly, I was spared the

usual preliminary pep talk of prearranged visits and spared, too, the shadowing presence of "the party member" to whom we had become accustomed.

Refreshments (at 11 a.m.) were on the grand scale. This time there could be no hiding behind friends. The toasts — to Peace, to Friendship, to Women the World Over had to be taken "bottoms-up" in glass after glass of Georgian champagne punctuated with cognac. My memories of that school are as rosy as the blooms snatched from the vase and thrust into my arms as I left.

Some of these schools are "technicums," which rank higher than the vocational technical schools and provide completed secondary education together with technical or semi-professional training. Most recruit at seventeen or eighteen. Intending teachers have to do two years' teaching as part of their training.

The education in all technical schools is free and there are grants, but entrance is strictly competitive and by selection, and the numbers are controlled to meet plan-

ned needs. If recruitment for some occupation lags, grants are increased and other baits introduced.

A student trying to live on an un-supplemented basic grant, unless home-based or receiving some parental assistance, will have a tough time; the basic grant is sufficient for only the frugal existence.

Once the realms of higher education are reached, the controls which govern the precise allocation of professional manpower to meet the State plan are even more stringent. Places in higher education are restricted; there is competitive entry by grades; and differential grants between institutes of higher education and, more significantly, between subjects. Mathematicians, for instance, receive up to 50 per cent more than the basic monthly grant.

The arts people appear to see nothing unfair in this. "Why should the scientists not be paid more?" a girl studying languages in Leningrad told me. "Their talent is not given to everyone and we need them."

Among the few students permitted to proceed directly to higher education from school without time spent in employment, the majority are mathematicians and physicists; the Russian planners are too rational to waste available mathematical ability in routine production.

The universities have no monopoly of prestige in Russia as they have here. Only one-sixth of higher education graduates are the products of universities as such, and of these one-half are mathematicians or pure and applied scientists. All the major technologies — as also agriculture, medicine, architecture, most advanced foreign languages courses, training for social planners, economists or accountants — are provided in separate, specialized institutes.

Polytechnics which provide high-level courses in metallurgy, engineering, building, applied science and applied mathematics are increasing in number, but the greater part of higher education even in Moscow is still given in specialized institutes analogous to our College of Aeronautics at Cranfield, to

the Institute of Food Technology at Weybridge or to the Royal College of Art.

Britain's shortage of university places for qualified applicants is mirrored in Russia, but more sharply. In the U.S.S.R. there are three applicants for every full-time vacancy in institutes of higher education including universities — and in Russia this is accepted as reasonable. Only half of all higher education students are on full-time courses: of the rest, about three-quarters are studying through correspondence courses run by the universities and institutes themselves, and one-quarter at evening classes four nights a week.

We asked a senior official of the State Committee on the Co-ordination of Research and Development in Moscow in which areas they intended to expand higher education most notably. "To increase part-time evening and correspondence extension courses still further," he told us.

Correspondence courses are a highly developed and important feature of Soviet education. No particular virtue

appears to be attached to having been 'exposed to the atmosphere of university life,' but then no university life as we know it at its best exists in Russia. Exposure to factory or office life, allied with continued study and instruction, is regarded as more valuable.

All correspondence students go to a parent institute on paid leave for four weeks during the summer vacation for practical work in workshops and laboratories. This means that higher education establishments (and vocational schools) are far more heavily used than equivalent buildings in Britain. "Alternating-shift" courses, evening classes, a five-and-a-half-day week throughout term and correspondence students in during vacations means that buldings, apart from a four-week break in August, are in almost continuous use.

All teaching appointments in Russia are subject to review every five years. An army of inspectors is ready to descend without warning on any lecture or classroom. Teachers have no freedom to experiment with syllabuses or methods,

but they are given real incentive (promotion or cash) to make suggestions for improvements.

In Moscow we visited a centre for scientific and technical education where methods study is done and visual aids are devised. We interrupted a group of teachers who had come in for a refresher course from local schools (where there is shift working in the schools this is simple to arrange). Although we were many times assured that there is no shortage of teachers (and no shortage of money for education) and all classes in the vocational schools we visited had twenty-four or fewer pupils, many teachers double-bank with evening or other teaching in order to augment their incomes.

Women hold many posts of high administrative and professional responsibility in education and outside it, but not in the same numbers as men. Opportunities for women, as indeed for all sections of the community, are genuinely equal, but there are, as in this country, marked sex preferences between subjects.

Biology laboratories will commonly be filled with women only: physics laboratories with men. Only one in five mathematicians and physicists at Moscow State University are women, but four out of five of all higher education students reading economics and more than two-thirds of those reading medicine are women.

The professional women whom we met were well-dressed generally with severe hair styles, but with lipstick, nail varnish and high-heeled shoes. The head of an engineering training department of a vocational school in Moscow was positively fancily dressed, with frills, curls and stiletto heels that seemed a danger as she picked her way between closely-aligned milling machines — though perhaps this was in honour of our visit.

The girls in the workshops wore their regulation bandeaux but, defying safety, most of them allowed fringes to have full play. In classrooms, lectures and offices bouffant hair styles, pretty dresses and fashionable shoes are usual — something that is difficult to square with the

poor quality of goods in the shops; but one explanation may be that more girls are taking up home dress-making and, of course, there is a black market.

Even the newest buildings are not up to our standards. Although some administrative rooms are very grand (particularly when in a converted palace or stately home); the working conditions in some of the institutes are terrible. Workshops, laboratories, libraries are good, very fully equipped and heavily used, but lighting everywhere is beneath our requirements and sanitary arrangements are atrocious. But then neither lighting nor plumbing are priorities — their turn will no doubt come.

The system is so openly based on selection by competition, on marks, grades, payment by results and other material incentives that the Western visitor tends to be irritated after only a short time. What happens to those who go to the wall of whom we are told nothing? What is the suicide rate? — another forbidden question.

But material incentive is

not the whole of it. There is also a genuine thirst for knowledge and an enthusiasm for education that cannot fail to impress. A very real seriousness of purpose is evident everywhere.

The wholly rational approach to planning, the straightforward answers given to our often naive questions, befogged as we Britons are by traditions, conventions and vested interests, came as a series of shocks. And, in the end, the questions remain.

Can tight controls and the concentration of directive talent in the centre — appropriate when Russia was educationally an undeveloped country — continue indefinitely? There are already attempts to liberalize the sys-

tem and to delegate more powers to the separate Republics. Is this compatible with Communism? Can they resolve the tensions between local initiative and central control? (For that matter, can we in Britain?)

In Russia, at the slightest sign of recalcitrance or deviation from a currently approved party line, the brakes can be clapped on, the process reserved. The future development of the Soviet educational system — which, within its limits, seems at present to work with undoubted efficiency — is, like everything else in the U.S.S.R. dependent on the evolution of ideological Communism itself. — *The London Times*, August 11, 1963.

Those who give their votes before they hear the debate, and have weighed the reasons on all sides, are not capable of doing. To prepare such an assembly as this, and endeavour to set up the declared abettors of his own will, for the true representatives of the people, and the lawmakers of the society, is certainly as great a breach of trust, and as perfect a declaration of a design to subvert the government, as is possible to be met with. — *John Locke*.