

EDUCATION

U.S. and U.S.S.R. Schools

A Science Service Grand Jury inquiry points out differences in Russian and American educational systems that reflect political and social differences in the countries.

►RUSSIAN EDUCATION is not more effective than U. S. education, generally speaking, but it is more effective in science at the grade school, high school and undergraduate levels.

This is the opinion of experts who have studied the two systems, as ascertained by a SCIENCE SERVICE Grand Jury inquiry in which questions were answered anonymously. The jury consisted of educators who have been to Russia this year and experts who have made a long study of Russian education and manpower in science.

At the graduate level, U. S. education in science was judged to be markedly better than U. S. S. R. education.

The vote on "Russian education is more effective than U. S. education, generally speaking," was: "Yes" 17% (4); "no" 58% (14); not voting, 25% (6).

Upon the statements that Russian education is more effective in science, the results were: At the grade school level, "yes" 80% (19), "no" 8% (2), and not voting 12% (3); at high school level, "yes" 92% (22), "no" 0%, not voting 8% (2); at the undergraduate college level, "yes" 54% (13), "no" 31% (5), not voting 25% (6); at the graduate level, "yes" 17% (4), "no" 75% (18), not voting 8% (2).

The jury was asked to vote on: "The Russian method of virtually assigning individuals to careers in various fields is better than the U. S. method of freedom of choice." The results were overwhelmingly in favor of the U. S. method with 84% (20) answering "no," only 4% (1) saying "yes" and 12% (3) not voting.

One expert commented: "Let us quit act-

ing scared, and pouring ashes on our heads. The last thing we want to do is emulate the Soviets in their practices. Incidentally, the sputnik was created by people educated in a system of considerably different format, and the Soviets have been critical themselves of their present educational methods."

"Job training is not a sufficient motivation to enable a student to get a competent education," another expert said. "Exploration of new ideas, comprehension of the accomplishments and feelings of men, and development of the society are necessary motivations to sustain education in the long pull. European education, on which the Russian system is patterned, has tended to give these greater emphasis."

Another opinion was: "Our education is better because it can be changed more easily to adapt itself to changing conditions."

Commenting on freedom of choice, one expert contended: "Russian children have freedom of choice upon entering an area of training. It is only after the choice is made that their freedom is limited by the narrowness of their training and the power of initial assignment by the state upon graduation. The system of assigning graduates for three years is good from the point of view of the state but not desirable from the point of view of some students."

On the other hand, another expert said: "Russian education is completely regimented and is designed to serve the objectives of the state and a planned economy."

This advice was given by another expert: "We could well cut down the time we give in elementary and secondary schools to non-cultural, non-scientific subjects, and step up

the amount of training and the length of school sessions devoted to solid college-preparatory subjects, in both science and humanities."

Similarly, another opinion was: "On the lower levels, Russian education is superior to ours because of better discipline and more thorough grounding in science and in foreign languages. In general, Soviet education is over-specialized and completely one-sided."

One expert warned: "Beware of the defensive attitude of American educationists who do not hesitate to distort the facts."

Another opinion was: "The Soviet system as a whole is a very effective tool to achieve economic progress and thus be a threat to world peace whenever it decides to behave in a warlike manner."

Another criticism was: "Soviet education is more impressive than U. S. education: it has mass-produced more in a shorter time. In Soviet statistics there is always some self-hypnosis in numbers. Given the same financial access to education as in the Soviet Union, there would be no problem in the U. S. once the influence of the National Education Association in elementary and secondary schools were relegated to the ash can where it belongs. The Soviets have merely picked up what we discarded in the last few decades under National Education Association pressure."

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ENGINEERING

"No Hands" Steering of Experimental Car

►A "NO HANDS" steering control is just one feature of the new experimental automobile built and tested by General Motors, John F. Gordon, GM president, has announced.

Primary features of the Firebird III, as it is called, are:

1. Wing-shaped Unicontrol handle that combines all steering, braking, accelerating and parking functions. The handle is mounted on a four-inch control stick located in the center of the car which is easily operated by either passenger.

2. Autoguide that provides electronic steering control.

3. Dual engine system that employs separate engines for car accessories and for driving the rear wheels.

4. A lighter, more compact gas turbine engine that uses 25% less fuel than earlier versions.

5. A single dial electronic temperature system that combines all conventional automotive heater and air conditioning controls.

Firebird III has an aerodynamic fiber glass body and is "pearlescent silver-gold in color."

In addition to furnishing the accessory power, the small engine drives a 110-volt generator. This generator, GM designers point out, provides 60-cycle electrical power which could provide power to run household appliances in the event of an emergency.

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SPACE AGE CAR—Tail fins and blunt nose are part of the experimental car's design.