REFORM OF GENERAL EDUCATION
AND VOCATIONAL TRAINING IN
THE U.S.S.R.

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March 1986
SUMMARY

School reform in the Soviet Union is being carried out in accordance with programmatic directives of the June 1983 plenary session of the CPSU Central Committee. The draft reform was under study and discussion for several months by various groups within the Soviet Union with the participation of about 120-mil lion people. Following the discussion of the draft reform, the basic guidelines for reform were approved by the plenary session of the CPSU Central Committee on April 10, 1984, and by the U.S.S.R. Supreme Soviet on April 12, 1984. The essence of the reform is to improve the quality of instruction (including an added year of compulsory education--from 10 to 11) and to teach young people a profession in addition to the required volume of knowledge and work skills.

INTRODUCTION

The education of the Soviet people has been a major objective stemming from the October Revolution in 1917. Under the leadership of V. I. Lenin, the revolution brought about the creation of a developed socialist society, the transition to the building of a Marxist-Leninist communist society, and the education of a new type of person. Prior to the revolution, only about a fifth of the school age Russian children were attending school, and that for only an elementary education. Following the revolution, an immediate task to eliminate illiteracy was undertaken. In 1930, a law was passed that required a universal compulsory 4-year elementary education. Compulsory education for 7 years began in 1950, 8 years in 1959, and 10 years in 1975.

In the Soviet view, the continual scientific and technological revolution gives rise to continual cultural changes which, in turn, leads to further demands on the educational system. A reform in the Soviet educational system is currently being implemented, and it is the purpose of this paper to highlight some of the features and rationale of this reform. Much of the material related to the reform was extracted from the Soviet press, Pravada and Izvestia, from The Current Digest of the Soviet Press, and from Soviet Life magazine. Additional publications containing some background information are listed in the bibliography.

DISCUSSION

A general overview of the Soviet educational system is presented in reference 1. A brief review of the system will be included herein in order to set the background for a discussion of the current reform.
Some Principles of Soviet Public Education

Some basic principles as established by legislation are:

- Equality - race, sex, religion, social status.
- Compulsory through 10 years.
- Free tuition.
- Unified system, continuity of instruction.
- Unity of instruction and communist training between school, family, and society.
- Linking education to requirements of life and of communist society.
- Scientific approach to education.
- Humanism and high moral principles emphasized.
- Co-education.
- Secular character.

Some Features of College Level Programs

Some features of the U.S.S.R. and U.S. college level programs are:

Undergraduate
- U.S.S.R. requires 5 years, U.S. requires 4 years.
- U.S.S.R. requires practical work experience.
- U.S.S.R. requires thesis during last year.

Graduate
- U.S.S.R. candidate of science, comparable to U.S. Ph.D.
- U.S.S.R. doctor of science, no U.S. equivalent.

Some Observations on U.S.S.R. Scientific and Technical Training

The nature of the U.S.S.R. training leads to the following observations:

- Intense, organized, unified.
- Tailored to practical work area needs.
- Persistent political indoctrination.
- Potential for producing highly-educated and highly-dedicated Soviet citizens.

Why the Change?

According to the Soviets, the school reform is by no means an expression of disappointment in the present school system which, since 1917, has essentially eliminated illiteracy and progressively achieved compulsory education through 10 years. The reform is rather a part of a continuing process of perfecting Lenin's principle of combining school with useful work in developing the realities of mature socialism. Under socialism, which is a society of working people, it is work, manual or mental, that is the sole gauge of honor, dignity, and status of its citizens. It is their belief that universal secondary
education should be accompanied by universal vocational training so that all secondary school graduates should learn an occupation.

Part of the motivation for the reform can, no doubt, be attributed to some observations made at the June 1983 plenary session of the CPSU Central Committee in which a negative trend of Soviet young people was noted, namely, delayed civic maturity, political naivete', the unwillingness of some young people to support themselves or to work where society needs them. It is quite likely that the organic union of studies and labor and a reduction in the age limit for starting work was seen as a way to combat this negative trend.

What is Changing?

The Structure of General Secondary and Vocational Education.- The following structure has been prepared:

- Elementary school - grades 1 through 4.
- Incomplete secondary - grades 5 through 9.
- Secondary general - education and vocational school--grades 10 through 11.

The general secondary and vocational education school will become an 11-year school (previously 10). Instruction of children will begin 1 year earlier--at the age of 6 rather than 7. The elementary school duration is increased by 1 year to ensure more thorough instruction in reading, writing, and arithmetic, and elementary work skills. The time spent in socially useful production labor training will be 3 hours a week in grades 2 through 4.

The incomplete secondary school will provide for the study of the fundamentals of the sciences for a period of 5 years. The time spent in productive labor training will be 4 hours a week for grades 5 through 7, and 6 hours a week for grades 8 and 9.

The secondary general education and vocational school will ensure the universal secondary education of young people and their labor and vocational training for their future occupation. The time spent in productive labor training will be 8 hours a week in grades 10 and 11.

Pupils in grades 8 through 11 will be afforded the opportunity for advanced study in a choice of subjects in physics/mathematics, chemistry/biology, and social sciences/humanities through elective courses. The type of instruction will be based on the national economy requirements and with consideration of the pupils' inclinations, the parents' wishes, the recommendation of the teachers, and the special features of the individual region.

The Quality of the Instructional and Upbringing Process.- Providing the rising generation a sound knowledge of the fundamentals of the sciences and developing skills and the ability to apply them in practice and molding a materialist world view are constant objectives of the Soviet school system.

In order to improve the content of education, the reform suggests several necessities:
More precisely list the amount of material to be covered and to eliminate overloading the curricula.

Set forth basic concepts and leading ideas as clearly as possible.

Fundamentally improve the organization of vocational guidance, devote more attention to practical demonstrations of the laws of science.

Equip pupils with knowledge and skills in the use of modern computer equipment.

Determine the optimal amount of knowledge and skills the pupils must master.

Fluency in the Russian language should become the norm in addition to one's native language.

Effect the chief task of the Party—the harmonious development of the individual concerning a comprehensive approach in the educational institutions to coordinate efforts in all areas of communist upbringing—ideological/political, labor, moral, aesthetic, and physical.

Special attention should be paid to ensure that pupils firmly master fundamentals of the sciences and of technical, agronomic, economic, and special new technology such as robotics. Full use must be made of labor training in given occupations under the supervision of labor veterans.

Improvement is to be sought in the methods of instruction such as lectures, seminars, practical experience, and consultation. Parents and teachers should make a more active effort to encourage work with books and other sources of knowledge and to help young people develop independent thinking. In connection with instruction improvement, it is proposed that class size be restricted to 30 pupils in grades 1 through 9 and to 25 pupils in grades 10 and 11. Existing textbooks and study aids are to be improved and new ones will be created.

The reform calls for the molding in pupils of a Marxist-Leninist world view as the firm foundation of their communist upbringing. The reform points out the importance of cultivating staunch materialistic ideas, atheistic views, and the ability to act in accordance with the philosophical principles of the Soviet Union.

The teaching of subjects in the area of the social sciences and humanities are to disclose in a vivid and understandable form such things as:

- The ways and means of the revolutionary renewal of the world.
- The basic principles and historical advantages of socialism.
- The reactionary, antipopular essence of capitalism.
- Show the inevitable victory of the ideas of communism.
The necessity is also pointed out of consistently instilling the ability to defend one's communist convictions and implacability toward philistinism, parasitism, and a consumer mentality. The ideological-political upbringing is of overriding importance to the molding of class-conscious citizens with firm communist convictions. It is directed that all elements of the instructional and upbringing process and the school's entire public life should work to this end.

Other factors related to improving the upbringing process include:

- Intensify the cultivation of a spirit of Soviet patriotism, socialistic internationalism, and the fraternal friendship of the U.S.S.R.'s people.
- Step up the activity of political and social clubs and regularly conduct excursions to places of revolutionary, labor, and combat glory.
- Improve the organization of political information and education through the enlistment of Party workers, the best propagandists and lecturers, into the political upbringing.
- Expand and improve the use of mass news media, television, and radio.
- Make fuller use of symbols of the Soviet state - the U.S.S.R. anthem, flag, and emblem.
- Every pupil upon entering adult life should know the Soviet Constitution and the Constitution of his republic and be guided by them.
- Moral and legal upbringing should develop in the pupil the need to live and act according to the principles of communist morality and to unswervingly observe the rules of the socialistic community and Soviet law.
- Improve the artistic and aesthetic tastes with such instruction to be provided by qualified specialists.
- Erect strong barriers against the penetration into the youthful environment of indifference to ideology, banality, and low-grade spiritual output.
- Daily exercises must be conducted in physical culture and personal hygiene to assure that the younger generation grows up physically fit, healthy, cheerful, and prepared for work and the defense of the homeland.
- Raise the level and increase the effectiveness of military training of pupils based on their preparation of service in the U.S.S.R. Armed Forces, instilling love for the Soviet Army, the molding of a lofty sense of pride in allegiance to the socialistic fatherland, and of constant readiness to defend it.
- Resolutely enhance the prestige of the Young Communist League (YCL) and Young Pioneer organizations and their role in ideological-political
upbringing of pupils and not permit formalism, over organization, and petty tutelage in their guidance. In this connection, work of groups such as the Little Octoberists must be improved to help young children direct their efforts toward useful activities needed by society.

Labor Upbringing and Training and Vocational Guidance. - In improving the school’s activity, the Party attaches special importance to the fundamental improvement of the preparation of the younger generation for labor. Properly organized labor training and vocational guidance and the direct participation of schoolchildren in socially useful productive labor are considered to be indispensable factors in the development of a conscientious attitude toward study, the making of good citizens, the moral and intellectual molding of the individual and his physical development.

Among the purposes of labor upbringing and training in the school are:

- The inculcation of love for labor and respect for working people.
- The familiarization of pupils with the fundamentals of modern industrial and agricultural production, construction, transportation, the sphere of services.
- The formation in pupils of labor habits and skills.
- Prompting pupils to conscientiously choose an occupation and obtain elementary vocational training.

To accomplish these purposes the school reform calls for the following:

- An increase in time needed for labor training.
- Provision for an annual working experience through a reduction in summer vacation time.
- Forms of labor training involving joint efforts by schools, vocational-technical schools, production facilities, families, and the public.

The plan specifies that elementary school pupils (grades 1 through 4) should master elementary techniques of working with one's hands with various materials, the growing of agricultural plants, and repair of visual aids, the making of toys, and various useful objects for the school, kindergarten, the home, and so on. Even at this stage, a beginning is to be made at familiarizing children with certain occupations that are within their comprehension.

In the incomplete secondary school (grades 5 through 9), pupils should receive more thorough general labor training, acquire skills in working with metal and wood, become familiar with the fundamentals of electrical engineering, metallurgical science, graphics, and get some idea about the national economy. They should make simple articles for school, and they should become acquainted with environmental protection.

In the secondary general-education school (grades 10 and 11), labor training will be organized in the most common occupations with a view to the
given region's requirements and work will be conducted directly at production work places. The culmination of the labor training will be the mastering of a specific occupation and the passing of a skill-category examination.

Work in the area of vocational guidance is also to be improved. An increased number of vocational guidance centers would work with schools, pupils, and parents to perform functions including:

- Familiarizing pupils with contemporary occupations.
- Provide information on the national economy requirements.
- Disclose pupils psychophysiological features and determine their abilities and propensity for specific types of activity.
- Work out appropriate practical recommendations.

The system of labor upbringing, training, and vocational guidance of pupils is designed to bring them, by the time they complete the incomplete secondary school, to a well-considered choice of an occupation and the appropriate educational institution in which to continue their education.

In addition, production enterprises are required to participate with the allocation of material, equipment, and veteran mentors. They will also pay pupils for their work. The pupils, in turn, are to develop an assiduous, solicitous, and economical attitude toward public property, labor productivity, unit cost, quality, accountability, and so on.

Social and Family Upbringing of Children.- The Communist Party and the Soviet state show constant concern for the development of children in preschool institutions, during extracurricula time in school, in extramural institutions, at their places of residence, and in providing all-round assistance to families in upbringing.

The reform calls for improvement in the upbringing of preschool children through the kindergarten system for various purposes such as:

- To install in them at an early age a love for the homeland.
- Respect for their elders.
- A sense of comradeship and collectivism.
- Develop standards of behavior and a sense of beauty.
- Develop cognitive interests and abilities.
- Develop independence, organization, and discipline.

Further development is to be made with extended day schools and other groups for participation after school hours. Activities of groups such as the Young Pioneers are also to be improved. In addition, the development of a system of
universal compulsory pedagogical education for parents is called for as a means of improving family upbringing.

The Teacher in Soviet Society.—A significant improvement in the training of teachers is an integral part of the education reform. Some of the factors involved are:

- Rework the curricula of teacher-training schools to coordinate more closely with life's demands.
- Provide for study of modern production and vocational guidance of children.
- Raise the level of psychological-pedological training and improve the content of practical work.
- Expand the teachings of ethics, aesthetics, logic, Soviet law, and methods of production work.
- Expand teacher training to a 5-year period.
- Expand the number of young people admitted to the teacher-training educational institutions and carefully select them.
- Provide improved advanced training for teachers with refresher training courses once every 4 or 5 years.
- Step up the attention of teachers to the political studies of Marxist-Leninist theory, CPSU policy, and communist upbringing of children.
- Take measures to retain teachers by improving working conditions, living conditions, and medical services.
- Assign housing on a priority basis.
- Provide moral and material incentives for the best teachers.
- Establish a national holiday—Knowledge Day—on September 1 with the possibility of awarding the Order of Labor Glory to teachers.
- Raise the salaries of teachers.
- Improve effectiveness of teachers' research work.

Strengthening Physical Facilities.—The expansion of the school system will require improvement and further development of the physical facilities of education. This will include requirements for preschool institutions. Facilities will be required for labor training, workshops, extramural activities of pupils, teacher-training institutions, refresher training schools, housing for teachers, dormitories and boarding facilities for pupils, and so on. It will also be necessary to expand the production of educational equipment, visual aids, tools, instruments, machinery, computer equipment, and others.
During the twelfth 5-year plan period (1986-1990), it is envisaged to build schools for 7-million students (almost double the present 5-year plan objective), 800 vocational schools, and many facilities for extramural activities. The salaries of teachers and other workers in education will be raised by 30 to 35 percent on the average. About 6-million people will benefit from the increase. The U.S.S.R. state budget has allocated about 11-billion rubles ($8.17 billion) for the school reform. This amount is reported to be about two-thirds of the annual budget for defense and is in addition to the usual allocation for education.

Improving the Administration of Public Education.- Final portions of the reform calls upon administrative agencies to steadfastly conduct a uniform state policy in the field of education and upbringing of the rising generation, to resolve urgent questions in a timely and creative fashion, and to see to it that the level of all educational institutions is raised to meet today's requirements.

Conclusion of CPSU Relative to School Reform.- The final portions of the school reform resolution stresses the necessity of the reform and points out that the successful implementation should be a vital concern of all. The conclusion of the resolution states:

The objectives of the reform are noble, highly moral, and humane. Their realization will be of enormous importance in raising the level of Soviet people's education and culture and will create better conditions for the instruction and upbringing of members of the rising generation and for preparing them for life, labor, and vigorous public activity. All this will have a beneficial effect on the strengthening of the country's ideological-political, economic, and defense potential and the all-around progress of our society and its advance to communism.

EPILOGUE

This paper, being documentary in nature, does not lead to specific conclusions. Rather, it is the intent of this paper to relate some Soviet philosophy and planning with regard to education. For this purpose, some excerpts from a speech by K. U. Chernenko at the Plenary Meeting of the CPSU Central Committee, April 10, 1984, will be used - "For Soviet society to move confidently forward, towards our great goals, each new generation must rise to a higher level of education and general culture, of professional qualifications and civic activity ... a scientific and technological revolution is taking place and there is an avalanche - like growth in the quantity of information, this makes unprecedentedly high demands upon those who are studying and those who are teaching ... The reform is called upon to create the necessary conditions for meeting these demands and, of course, to eliminate present shortcomings in education and its administration ... We expect the reform to have beneficial results as regards the economy and the manpower. Every job created for senior schoolchildren must produce benefit to the community ... millions of pupils equipped with sound knowledge and essential work skills will enter productive employment in the national economy ... The whole educational process today must carry much more philosophical substance. The schools are called upon to foster firm Marxist-Leninist beliefs and a capacity for independent and imaginative thinking, and to cultivate a sense of responsibility for the destinies of the
socialist homeland. The schools must make pupils fully immune to views and moves alien to us ... the entire system of public education substantially influences the pace of our economic, social, cultural, and intellectual progress and, indeed, our country's defense capability."

APPENDIX

Some trends in Soviet higher education output are presented herein as a partial indication of national objectives. Higher education (college) graduates by certain specialty areas are shown in Figures 1 and 2 for a time period beginning at 1960. Broad trends (Fig. 1) indicate the emphasis on engineering and natural science—engineering graduates being about equal to all others combined and natural science graduates being about half of all others combined. Thus, engineering and natural science graduates combined represent slightly more than half of the total number of graduates. Another breakdown of graduates in some selected specialty areas (Fig. 2) again indicates the strong interest in engineering with the number of graduates having tripled over the last 20 years. The other specialties shown all indicate a general growth over the years. It is interesting to note, however, that relative to the number of engineering graduates, the actual number of graduates in physical sciences has been relatively small and constant and the number of graduates in life sciences, social sciences, and pedagogy has been relatively high and increasing at a fairly rapid rate. Another view of trends is indicated in Figure 3 by the number of advanced degree enrollees in some selected specialties. A rapid growth in engineering is evident during the 1960's that leveled off during the 1970's. Thus, a perceived need for attaining a high level of science and technology capability was apparently attained and satisfied. The other specialties shown indicate a substantial growth in advanced degree enrollees in some areas that are clearly emphasized in the new school reform—that is, in particular, in philosophy, philology, and pedagogy. Of significance is the first appearance in 1969 of advanced degree enrollees in psychology—a specialty area of vital importance to the U.S.S.R. system.

REFERENCES

BIBLIOGRAPHY


Figure 1. USSR higher education graduates by specialty, 1960 to 1990.
Figure 2. USSR higher education graduates in selected specialty areas.
Figure 3.- USSR advanced degree enrollment by specialty.
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