

A SECONDARY SCHOOL EXPERIENCE IN LITHUANIA, FALL 1981

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To better understand the preparation of students for professional training in the U.S.S.R., a few points should be made about the system of secondary education that the future professionals must complete. I shall present several aspects of this system, which I had an opportunity to take part in during the Fall of 1981 while in Lithuania. My comments are not based on scholarly reports and do not fully encompass the educational system. They are glances through the door normally closed to the Westerner.

In Lithuania, the students attend school for 11 years before graduating. Normally, students go to school for only 10 years in the U.S.S.R. However, note that 10 years, 6 days/week in the U.S.S.R. system, exactly equals 12 years, 5 days/week in the U.S. system. The extra year is added on to make up for the time allotted to course work in Lithuanian language and literature. The Lithuanian children start schooling at the age of 7 and not 8, as the Russian children do, and therefore, graduate at the same age as other high school seniors in the U.S.S.R. The extra year is a great asset to the Lithuanians. Since 10 years of general education is spread over 11 years, the Lithuanian youth has a chance to be more mature and to learn some of the material at a slower pace.

I was a senior in an American high school when I visited Lithuania; therefore, I was placed in the 11th year class at the Seventh High School of Vilnius, Lithuania. The Seventh High School had an enhanced program in physics to which I requested to be assigned. Other high schools have enhanced programs in other subjects, such as English, mathematics, literature, etc. There were 23 males and six females in my enhanced physics group. All of the instruction was in the Lithuanian language, as were the textbooks.

The whole group migrated from one classroom to another, so there was no natural mixing with the other 90-odd seniors who were not in the enhanced physics group.

WEEKLY SCHEDULE						
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	Physics	Lithuanian	Mathematics	Physics	Physics	Military Training
2	Physics	Lithuanian	Lithuanian	Physics	Physics	Social Sciences
3	Physics	Russian	English	History	Physics	Lithuanian
4	Physical Ed.	Physics	History	Physical Ed.	Mathematics	Music
5	English	Mathematics	Physics	Russian	Social Sciences	Russian
6	History	Chemistry	Physics	Biology	Biology	Russian
7	Chemistry	—	Physics	Military Training	-	-

NOTES: A class period lasted 45 minutes. Military training starts in the junior year in high school and is continued through college. It is taught in Russian.

Even though the 30 students in the group were the "brains," they were not especially looked up to by their peers or their teachers, and they did not have a snobbish attitude towards any of the other students.

The course load for the enhanced physics program in the senior year is given in Figure 1.

SUMMARY TABLE		
Subject	Numbers of Sessions per Week	Audited by the Author
Physics (3 sessions of lab)		
Physical Education	12	Yes
English as a Foreign Language	2	Yes
Chemistry	2	Yes
Military Training	2	Yes
Social Sciences, including	2	No
Economics	2	Yes
History, Lithuanian and World	3	Yes
Mathematics, Geometry and	3	Yes
Algebra	4	Yes
Lithuanian Language and Literature	4	No
Russian Language and Literature	1	Yes
Music Appreciation	2	Yes
Biology		
Total		39

Figure 1. Senior Year High School Schedule for Students with Enhanced Physics

There is an overabundance of physics taught at this school. The student outside of the enhanced physics program would use the same textbook, but would be scheduled for only two or three sessions of physics per week and would probably have no opportunity to do any appreciable laboratory work.

Does this enhanced program pay off? Out of the 29 students in the enhanced program, only six entered college intending to study physics.

A given subject is taught over several years. For instance, for physics in the ninth grade (sophomores), the students studied mechanics; and in the tenth grade (juniors), studied thermodynamics and some electromagnetism. The eleventh grade textbook for seniors dealt with periodic motion, both mechanical and electromagnetic, and with optics and nuclear physics.

Grades were assigned from oral and written exams. In the last ten minutes of every class the teacher would call on a student to answer some questions, give an explanation or solve a problem. For this performance, the student was given a grade. Every few weeks there was a written examination scheduled. In the science courses, written examinations were usually 20 minutes long. These two forms of examination provided the basis for the grade. Since I was not present during the final examinations or the college entrance exams, I do not know what they consisted of; when I tried to find out, I never got the same answer from any two people.

High school teachers in Lithuania maintain a formal distance from their students, but they are not stoned-faced statues either. Teachers do not try to become friends with the students as is done in the U.S. Since teachers do not bring much of their personality into the classroom, all that is left is to teach in a dry fashion.

Since I desired to talk to the teachers outside of the classroom environment and since the teachers accepted me as a guest, I found out that the teachers are people too. I also found out that the teachers knew more about the students than the students thought they did. No real CIA-, KGB-type of information was involved here; it was simply a general knowledge about the students' habits like smoking and partying.

On the surface the students were well-disciplined. They wore uniforms, stood up when addressed to in classroom, and answered questions in full sentences. However, they still talked in class, goofed off, procrastinated all week and then crammed for an exam, cheated, and gossiped about their teachers. During a break they would run off from the school grounds to smoke a cigarette, because smoking on campus was prohibited. The students thought they were getting away with it, but the teachers knew all the tricks. My conclusion is that no matter where you go, the youth are the same all over the world.

I took a biology course in Lithuania, using the textbook in the Lithuanian language. I could swear that it was a translation of the one I had used in the U.S.; or, maybe, the one in the U.S. was a translation of the text used in Lithuania? My conclusion is that the textbooks are basically of the same level in the U.S. and in the U.S.S.R. However, our textbooks are much more attractive, they are better looking, feature more illustrations (in color) and are more pleasant to study from.

Not pretending to have made an in-depth study of the curriculum, I believe that the level of education at the Seventh High School of Vilnius, Lithuania and the Hinsdale Central High School in Hinsdale, Illinois from which I graduated is, for the

most part, about equal.

Every few years a report comes out in the U.S. stating that the education in the U.S.S.R. is of a higher quality than that in the U.S.** In Lithuania we had an opportunity to meet with professors, department heads, and university executives. Normal conversations would swerve away from computing and often would end up in comparing the U.S. to the U.S.S.R. On one occasion the discussion was about the quality of education in the U.S. The professor stated that the level of secondary education was poor in the U.S. I admitted that inner-city level of education was usually lower here, but challenged him by saying that the same was true for different regions in the U.S.S.R. He conceded the point by admitting that sometimes there was a problem with students graduating from high schools in rural areas with straight A's. On several occasions these students had flunked out of college because they were not properly prepared for it. Such is the Soviet way. The Lithuanian dissident publication „AUŠRA," No. 34 (74), received in 1983 in the West, stated: "It is not important that the schools graduate illiterates, it is important that the percentage of non-progress gets smaller." Soviets make a lot of very dubious claims about their system, they also operate on relative, nebulous statistics.

A school and an educational system does not consist of just a textbook and a teacher. The environment and the way the material is presented is also an important factor. The use of audio-visual devices had grown dramatically in the last decade here in the U.S., but it has not been developed much in the U.S.S.R., or at least the teachers fail to take advantage of it. The charts, such as for anatomy, the periodic table of the elements, etc. were used, but not all were available in the Lithuanian language. The use of films and film strips was very rare. Video has not been heard of by most people.

The library at the Seventh High School was very poor in the science and mathematics topics. Most of the books were literature books, such as novels, short stories, poetry, etc. They were a mix of Lithuanian and Russian language publications and their level was from kindergarten through high school and for popular reading. The periodicals consisted of popular science magazines, a few literature magazines, and a few newspapers: not an abundance of periodicals, but, then again, students did not frequent the library either.

One of the best aspects of the Soviet system was the program of formal competition in academic subjects. Near the end of our stay, in December of 1981, the first round of the "Physics Olympics" was held. The first round determined the best physics students in the school. They were sent to compete in the city competition, then the county, then the republic, and, finally, to the Soviet Union-wide competition. These Olympics were held in many subjects: chemistry, mathematics, biology, etc. My guess is that this form of competition continues in the universities of the U.S.S.R., similar to the Putnam Competition in Mathematics here in the U.S.

Similarly to our NSF-sponsored "Science Study Series," the Soviets publish books in a series form, except in a broader scope. Their serialized subject matter programs are called "Subject X School," such as the "Physics School." The subjects range from biophysics to quantum physics and everything in between.

Not only do they publish books written by their own authors, they also translate books from other languages. Hugo Steinhaus' "Mathematical Snapshots," and Jerry B. Marion's "Physics and the Physical Universe," are a sampling of the books I picked up in Lithuania. Normally a foreign language book is first translated into Russian and then into Lithuanian. That was true for our physics text, which originally was written in Hungarian or Yugoslavian.

Computer programming was taught to students attending another high school with the enhanced mathematics program. However, even such a high school did not have a computer. The students learned by using the "batch" method. They filled out computer cards by hand, since there were no card punching machines available to them. They handed the cards in to the mathematics teacher, who went home and checked them also by hand: there was neither a computer nor computer access available for this work.

* The author, presently an undergraduate at the Washington University in St. Louis, Mo., spent the Fall of 1981 in Lithuania and audited high school courses there. For background refer to LITUANUS, 1982, Vol. 28, No. 3, where the author's parent reported on the experience from a professional point of view, acquired while serving as a Senior U.S. Fulbright Lecturer Abroad.

** My father was told that foreign educators touring the U.S.S.R. are typically shown several select high schools for gifted students. While those institutions deal with intellectually elitist students, they are exceptions in the U.S.S.R., rather than norms.