

Some Aspects of Text-book Development in Azerbaijan

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Abstract: *The works on text-book creation were re-organized in the years of independence in Azerbaijan. "The text-book policy" of the government was sensed. The school children of the 1-11 forms were provided with text-books free of charge in the years of 2003-2005. 250 original text-books were prepared in the years of 2000-2007. It has been started to develop English, French and German text-books since 2002. At present the works on creation of English and French text-books for the 1-11 forms have been completed. The text-books for schools are being improved and renewed.*

Keywords: *Text-book Development, government policy, education.*

Introduction

After having gained its independence, drastic changes took place in all fields including the education system in Azerbaijan. In compliance to the requirements of education reforms since 1999, all curricula, programs and text-books have been changed. As a result, more than 250 original text-books have been prepared and published during the years of 2000-2007. It should be noted that in the first stage of the education reforms, i.e. in 1999-2000, fundamental actions had been taken in the solution of problems for preparation, publication of text-books for the schools of general education and provision of them with text-books and thus, a new stage started in text-book creation. It is known that during the existence of the USSR for 70 years, as a rule, all text-books were prepared in Moscow and used in the provinces after translation without making any changes and additions to them. As these text-books were prepared by Russian scientists, they were originated mainly from the Western and Russian sources. These text-books did not include any material about the eastern countries including Azerbaijan. That's why these text-books seemed a little bit strange and distant for the Azerbaijan children. Of course, it was different in the text-books on humanities, i.e. it would be impossible to do without referring to the Eastern sources. That's why the names of Ibn-Sina, Firdovsi, Khayyam, Nizami, Rumi, Nasimi, Jaami, Fuzuli, Navahi and other masters were often come across in the text-books and the East world used to be mentioned. It is clear that it was not like this in the text-books on exact sciences, especially mathematics, physics and chemistry. Even minor information about the prominent people of the East, their works, discoveries was not included in the text-books. Due to this, in the years of independence there was great need to renew completely the text-books prepared by Azerbaijan scientists because it was advisable to make serious changes in the content of them at all. New text-books have already started playing the role of a bearer of national and world values. In the course of time the mathematical problems were given place in the text-books created these years, like mathematics for the 5th-11th forms, physics for the 7th-11th forms, original chemistry for the 8th-11th forms. For this purpose, the investigations of the text-books written in Arabic, Persian and Azerbaijan languages used at the beginning of the 19th and 20th centuries, as well as the investigations devoted to the history of development of text-book creation in Azerbaijan were reviewed once again and the sources which were not taken into consideration in the new text-books and forgotten under the influence of Soviet ideology were again come in view.

It is necessary to note that some text-books on mathematics in Arabic and Persian languages have had even a minor effect on the teaching of mathematics in Azerbaijan. For example, information about calculus (arithmetic), geometry and trigonometry given in Bahaaddin Amili's manuscript "Khulassatul-hesab" written in Arabic had been considered as a valuable source for the school text-books since 19th century.

Some ideas about mathematics of an author named M.B. Yazdi in his work “Eynul-hesab” (i.e. ‘Eyes of Arithmetic’) were useful in preparation of text-books.

The authors of the text-books written in the years of independence knew that there had been 14 text-books on mathematics in Azerbaijan language till 1920. Another manuscript “Risaleyi huruf ve xutut” showing the influence of the East in distribution of mathematical knowledge in the XIX century was written by Sh.Garabagi in Azeri language. There are sections “Elmi hesab” (Scientific arithmetic”) and “Elmi handasiyyat” (“Scientific geometry”) here. Though their handwritten copies were used but they were helpful to the teachers as a teaching material.

It was known to the authors of the text-books written in the years of independence that 14 text-books on mathematics in Azeri language had been available till 1920. The researchers carried out some research works in this field. These books included proper mathematical problems along with theoretical data. One of these books was “Hesab” (Arithmetic) written and published by Jalal Akhundov in 1884. Here, it was referred to both Eastern and Western sources. The researchers referred to the text-books ‘Hesab’ (Arithmetic) written in Persian language in Baku in 1901 and “Elmi-hesab” (Scientific arithmetic) published in Azeri language in Tiflis in 1904 as reliable sources. Among these books “Emel ve nezari mufassal elm hesab” (“Practical and theoretical perfect science arithmetic”) written by H.Yusifzade and I.Faig in a typical Eastern style was considered more perfect than others. As a synthesis of both Eastern and Western sources the text-book “Heasb meseleleri”(Arithmetic problems or “Sum”) by U.Hajibeyov was published in 1907. His book published in the native language was widely distributed in the educational sphere that time. It is interesting that this book had never lost its importance and value and occupied an important place in the history of Azerbaijan school. The researchers still speak about this book.

Of course, as Azerbaijan did not have any schools in the native language in the first decades of the century it was impossible to speak about any mathematical educational system too. It is also known that the influence of the medieval East gradually weakened in the text-books on mathematics written later under the influence of the West and Russia and it gave its way to the scientific and pedagogical thinking of Russia. But, it is also true that the level of the development of education increased the tendency to enrich the content of the manuals of mathematics to be taught. This tendency is also felt a little in the book “Teze elm hesab” (“New science of arithmetic”) (1921) written by A.Israfilbeyli in the 20s of the last century. Later, as a rule, all manuals of mathematics used in Azerbaijan schools had been written by the Russian authors (Arjennikov, Lebedinsev, Astrjab, Ribkin, Popov, etc.). This tradition continued for 70 years. This influence was very strong in the books written in the 20-90s of the twentieth century and hence, the Azeri children were departed gradually from their roots. But, it was not so easy to do. It should be noted that Arabic terms and sentences compiled in Arabic and Persian style were mostly used in the manuals of mathematics published in the first decades of the 20th century. It was still observed in the manuals of mathematics published after 1921. Along with the above-mentioned book “Teze elmi hesab”(“New scientific arithmetic”) by A.Israfilbeyli in the book “Hesab meseleleri macmuasi” (1922) (“The collection of arithmetic problems (sums)”) and in other text-books these cases still continued.

Beginning from the 30s of the last century in the text-books a priority was given to the principal of approximation of terms to Azerbaijan language. But, it was necessary to continue the parallelism in the use of terms, even the Azeri version of the term was used next to the Arabic term. Sometimes, a glossary of terms were also given in some books because Arabic terms were widely used in mathematics that time.

In compliance with the requirements of the existing regime in the 30-40s of the 20th century a priority was again given to refer to Russian books and the names of almost all the above mentioned Eastern manuscripts and Azerbaijan books were used in research works only.

Of course, such changes were rooted in the science gradually and remained there for a long time. It should be also remembered that the manuals of algebra, including arithmetic, geometry, trigonometry and appropriate manuals of problems (sums) started being replaced by new ones in 1954 and the Western and Russian sources constituted these books.

Such cases in the text- books continued till the collapse of the USSR. It was offered an appropriate chance and opportunity to orient East and to return back (to refer to) to our past. Taking into consideration of the fact that scientific sources of Azerbaijan are mainly in Arabic and Persian languages all important for our people national values again were brought to the text-books. The theoretical thought of the leading figures of the East: Biruni, Ibn Sina, N.Tusi and other scientists appeared in the new generation of text-books created in the years of

independence. Beginning from 2002, some useful materials by an Eastern scientist who is close to us and whose materials were used in the Azerbaijan text-books in the 19-20 centuries were again remembered and referred to in the manual of mathematics for the 5-11 forms, including the geometry prepared by the prominent scientists of Azerbaijan professor M. Mardanov, professor M. Yagubov, professor S. Mirzayev and others.

It is known that the manuals of physics and chemistry for general education schools have a significant place among the text-books created in the years of independence. Being included into the secondary school course these subjects as the constituent of the system-structure of the general natural sciences are given in the form of the first elements in the primary (lower) forms. Beginning from the primary school in the course of "Hayat bilgisi" ("Knowledge of Life") and other text-books the pupils are acquainted with various phenomenon of the nature and this knowledge becomes the basis in the following stages, while learning chemistry, physics and biology. In the next stage after the primary one, i.e. in the main school stage this information is aimed to provide the pupils with formation of the knowledge on nature. In the upper classes both physics and chemistry are separately taught as the system subjects and learning of the basis of this science is provided.

It should be remembered that the text books of the 20s were still being used in the 30s. Then along with the manuals of mathematics the text-books on the subjects of physics and chemistry in Russian had been translated into Azerbaijan. For instance, the book "Physics" by Grigoryev consisting of two parts was published in the years of 1924-1927 and put into use of the schools. It should be remembered that there was not a separate text-book "Physics" in Azerbaijan by that time. These text-books remained as the main sources in the following years.

It is also remarkable that the names of the Azerbaijan scientists : A. Abbaszade, H. Abdullayev, Z. Alizade, L. Imanov, including A. Muxtarov, M. Aliyev, N. Quliyev and others who made great contributions to the development of the science of physics in the republic were used in the text-books of the new generation.

One of the advantages of the new generation of text books is that a separate article was devoted to the contribution of Azerbaijan scientists in exploration of space. It was pointed out here that because of the creation of the applied space science in the 70s of the 20th century a new scientific-technical line called as 'Exploration of Earth from Space' was set up and this field was headed by Academician T. Ismayilov, another our countrymen K. Kerimov had been the head of the Main Space Department of the former USSR from 1965 to 1991. Continuing of this dynamics , it is noted and reminded about the history of development of atoms in the section of "Atom and atomic nuclear" of the manual of " Physics" stating that about 2500 years ago the ancient Greece scientist Democrit had an assumption that all matters consisted of atoms. Later on its signs were also observed. Such a consistency in the development of the science found its expression delicately in the text- books. At the beginning of the 20th century the subject of chemistry found its wide use in the education system of Russia, including Azerbaijan which was the long distance province of Russia. In an early stage the subject of chemistry was taught at the gymnasiums and real schools. That time there was not a manual of chemistry because the subject of chemistry was not taught at the schools in Azerbaijan. The teaching of this subject in Azerbaijan started in 1920 only. The program for seven year education which was prepared in Russia in 1921 started being used in the schools of Azerbaijan and lessons were taught by means of the text-books prepared in compliance with these programs.

The first manual published in Azerbaijan language is "The first lessons on chemistry" (by S. I. Sazanov, V. N. Verkhovski) which was translated into Azeri by an Azeri scientist S. H. Huseynov in 1922 who made considerable contributions to teaching of chemistry. Though the book was of word-for-word translation nature it was the only manual of chemistry till the academic year of 1927-1928. A little later, namely in 1928, the first manual on chemistry "Work book" was published which had been translated by A. Abdurrahmanov. It should be noted that in the manuals on chemistry published before 1917 the pupils received superficial knowledge and no attention was paid to the interconnection between the teaching material and life (nature). This defect was mainly eliminated in the "Work Book". But, this book was not far from the influence of the leading ideology. "Azerneshr" published the books translated by S. Huseynov "Organic chemistry" in 1930 and "Non-organic chemistry" in 1931. Then, professor V.N. Verkhovski's book "Chemistry" (for 6, 7, 8 forms) translated by Ch. Zulfigarov was published in 1933 and 1934, and "Analysis of Chemistry" (for the secondary schools) was published in 1936 and it gave impetus to making up the chemistry as a stabile and systematic course. Thus, the first period for creation of the manuals on chemistry for the secondary schools covered the years of 1930-1938 and that time text-books had been mainly translated from Russian ("Non-organic chemistry", "Analytical

Chemistry”, “Physical chemistry”, “Agro-chemistry”, “Methods of teaching of chemistry”, etc.). That’s why, all these books did not contain any national and moral values belonging to our nation. Though, these years the prominent scientists on chemistry like S.C.Huseynov, S.A.Aliyev, Kh.Sh. Kalanterli lived and worked in Azerbaijan. Two of them: professors S.C.Huseynov and S.Aliyev taught chemistry in native language, though they did not have any national school book in hand.

Though, the initial period of this science which was called as “Al-chemistry” in the East dates back to the first half of the 18th century. This period is also called as the period of expressive chemistry. That time chemistry was taught by means of the visual aid only. By this way, pupils were taught that ancient people had shown great interest in the phenomena of nature. But, they had difficulties to explain various phenomena of nature. Some examples about them were given in the text-books. All these gave some idea to the pupils about various sciences, including the development of the science of chemistry.

Like all other text-books created after the reforms in the education system the scientific data is given compactly, ordinarily and in a systemized manner in the first original manuals of “Chemistry”. These text-books were accepted by the schools.

Thus, starting from the first years of the 21st century new aspects in text-book creation in Azerbaijan found their place by taking national and world values as a basis, the values of our people used for centuries were taken into account again and taught to the pupils in a systematic way. Meeting the modern requirements these text-books have helped the pupils to follow a right direction in formation of their world outlook.

Integration into the world education system, including the world text-books opened up new perspectives for the text-book creation in Azerbaijan and the qualifying standards for the text – books were reviewed again in the National Education Conception (Curriculum).

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