

SÁMUEL BRASSAI, THE LAST TRANSYLVANIAN POLYMATH: THE TEACHER AND SCHOOL-BOOK WRITER

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1. Introduction

Sámuel Brassai was born in Torockószentgyörgy (Coltesti) in Transylvania in 1797 and died a hundred years later in Kolozsvár (Cluj) in 1879. He got his first inspiration for the love of learning and sciences from qualified parents and grandparents. His father, who was a teacher and lived in the charm of books, taught him that he could recognize new features in every science and that he should increase his knowledge independently. „I made an arrangement that I dedicate myself to teaching. This aptitude and passion of mine started when I was twelve years old” – he professed to his friends. He was one of the first to speak up in connection with educational questions. He is rightly called the last Transylvanian polymath and the great teacher of the nation. Lajos Felméri, the professor of pedagogy of the University of Kolozsvár called Brassai the first methodologist of our country and also put him – as a school-book writer – on a European level.

II. Sámuel Brassai, the teacher

As an adult his main purpose was to educate and drive youth towards science besides the cultivation of the national culture and native language, because youth is the ideal time for learning and getting experience, he said. Brassai wanted principally to teach his students to think so he gave priority to transpose language and mathematics in his curriculum. He trained and taught not only as a teacher but also through his extremely significant academic educational work. He was a pedagogue who wanted to reform public education not only with his theoretical activity but also with his practical methods.

He stated his educational principles in his different writings and works. Brassai took a share in educating people and publicising science for everyone as an editor and writer of articles too. That was the reason why he accepted the editorship of the *Vasárnapi Újság* in 1834. Two kinds of ambition were noticeable in the articles. One of them gave financial information to the reader, and the other had the purpose of public education. Brassai declared that people should improve their mind, because education was the basis of economic development. He subordinated his journal to this conception.

Brassai just like the famous teachers of pedagogy Erasmus, Vives, Comenius, Apácai Csere – was the follower of the pedagogy of kindness and fondness. He dealt with the teacher–student relationship in his several writings and he made it clear what it means to be a good teacher. In most of his writings he laid

stress on competent teaching and on persistent and patient work. His personal pressure played a significant role in his success. He formulated the desired relationship of the teaching–learning process: „the teacher role is giving incentives, giving a sign and suggesting something. It is directing and stimulating. The student’s part is forming and creating”– said Brassai.

In his lectures and writings he emphasized the most important features and tasks of a teacher:

The teacher should not strive for new things in science only for himself but he should help the students with new discoveries to make a success in science.

The teacher must be respectable. His outstanding knowledge cannot replace his moral poverty. Teacher’s prestige is very important in teaching. Besides knowledge morality denominates greatly. The whole of the teacher’s prestige can be destroyed if the teacher is partial or becomes a laughing-stock. It puts into question the esteem and respect of his colleagues.

The teacher’s personality is very important in the teaching–learning process and a good teacher must have a spiritual vocation.

Future teachers need to learn the pedagogical and methodological knowledge. The teacher has to be familiar with the subject in such a way that he can shape it and put it into practice in every situation. To find the suitable method is also important. How can a young man teach so many subjects if he did not learn pedagogy and methodology asks Brassai?

Teachers should not make children learn rules, dates and geographical names but they should make them get used to seeing the whole and the parts and the connections in it.

Teachers should take care of educating the talented and they have to teach students to see and create; they should make students take part actively in the learning process.

Students have to be given such knowledge at school which improves thinking; those who learn to think and judge well at school, will be able to make the right decisions and act correctly in real life.

Primary schools and grammar schools are not universities, so the teachers must teach knowledge and not sciences in these schools.

„The method of teaching wisely: let’s not imitate the woman cook or the farm-hand woman, who’s feeding up her goose, not the pigeon, who is giving food to her nestlings from her own mouth, but let’s imitate the brood hen, who makes her chickens walk on their own legs immediately, and she gets them used to eating by themselves.” (Brassai 1868:45.)

Learning should not be about swotting on the children’s part and teaching by giving knowledge neglectfully on the teachers’ part.

In his articles he always emphasized that teaching is a complex process and mental work, which is determined by logical standards and psychological laws, but it is strongly connected to ethics and aesthetics. He taught everybody, who required it, throughout his life and claimed several times that he had only one science, methodology, both in theory and in practice. He thought just like Locke that the simplest and easiest way of teaching is by showing a good example personally and the teachers and parents' responsibility is also important.

III. Brassai, the school-book writer

The spread of the direct method had an influence on the structure of schoolbooks, the nature of selected passages. Their vocabulary, topics were more suited to the needs of practical life. The opinion that the students should also become familiar with the culture of native-language speakers established itself. Brassai set forth his pedagogical views, methodological principles in his school-books.

In Brassai's time students learnt from notes; they had only some school-books. If there were a few handbooks, they were verbose and over-scientific. The aim was not understanding; rather the school-book writer had to show off his knowledge. Brassai wrote school-books of his own and in 1837 he began an educational publishing enterprise at private expense. He started the publishing of the „Kék Könyvtár” (Blue Library). It is important for us because his methodological principles are explained in it. The following school-books were published in the „Kék Könyvtár” (Blue Library):

A kisdetek számvetése angol mintára (Calculation for infants in English fashion 1842)

Bankismeret (Business studies 1842)

Rajzminták fiatal gyermekek számára (Drawing copy for young children 1842)

Számító Socrates (Socrates, the Calculator 1842)

Okszerű vezér a német nyelv tanulásában, I. rész (A Rational Guide in German Language Learning, Part 1. 1845)

Német olvasókönyv (German reader 1847)

Okszerű vezér a német nyelv tanulásában, II. rész (A Rational Guide in German Language Learning, Part 2. 1847)

Ingyen tanító francia nyelvmester, I. rész (Free French Language-Master, Part 1. 1863; no further volumes were published.)

Hogyan kelljen a latin hajtogatást egyszerűen, gyorsan és sikeresen tanítani (Teaching Latin Conjugation Simply, Quickly and Successfully 1872)

In German:

Neue Unterrichtsmethode der lateinischen Coniugation mit Tafel und Katechetik von Dr. Samuel Brassai (1880)

Elméleti és gyakorlati német nyelvtan, I-II. rész (Theoretical and practical German grammar. A Rational Guide to German Language Learning, Parts 1-2 in one volume, 1896)

Twelve textbooks were published and printed. His books entitled *Számító Socrates* and *Okszerű vezér a német nyelv tanulásában* ran into the most editions. *Számító Socrates* – written on the model of an English book – was published five times between 1842 and 1892. The book was a great success, but there was no recognition for Brassai from the government. In this book he elaborated the methodology of teaching Mathematics at elementary level and emphasized the importance of mental arithmetic. It includes all simple experimental examples. So, Brassai suggests the way of direct infantile observation and realisation. He declared that a child must be restricted to his/her own resources and control. The task of a teacher is to help this activity. Brassai approaches quantity from the side of experiment, on the basis of content, and not from the side of numbers and symbols. Here he applied and introduced the Socratic method of explaining through questions to put the children on the way of the concept of abstract numbers. His principle is that the students should form their own way of calculating, and the teacher's role is to correct it. Children should count based on sensory examples first, exercises with abstract numbers should only come later. He leads the students along the four fundamental operations very descriptively. He considers as wrong the methodology applied up till then, according to which children were taught general principles first. He himself calls his system the Socratic method of explaining through questions, and stated that any other way is dangerous because „the human mind, just like other parts of the body can be wrenched, but then it can be cured only with difficulties” (Brassai 1868:42).

He wrote his other book, *Okszerű vezér a német nyelv tanulásában* – the fruit of 25 years of studying and experience – to make language learning easier. With this course book, which runs into ten editions, he started his language teaching reformation. Brassai focused on speaking exercises and on sentences as he emphasized that the sentence was the basic unit of a language, not the word. In his books Brassai set a great example of consistently applying his linguistic views in practice. This book served as a model for the *Ingyen tanító francia nyelvmester* which includes his following language teaching principles:

- (1) Each word is taught in a sentence to the students.
- (2) The simplest sentences are followed by more and more difficult ones.
- (3) Each sentence contains only one new element of knowledge.

The publications of the „Kék Könyvtár” (Blue Library) provided the primary and high schools with first class textbooks for sixty years. Not all of his books were published. Seven of them remained in manuscript, two of which were published by his students. Many of Brassai's lectures also survived in his students'

notes. His two-volume Latin grammar book was not brought out either. He completed it in 1842, and submitted it to the Educational Committee, which gave the following judgement about the its classification as an official school-book: „However rational it may be, Brassai’s language teaching system cannot be applied under the circumstances.” (Fitz 1912:157.)

Thirty years later Brassai published a chapter of his Latin grammar book on conjugation: *Hogyan kelljen a latin hajtogatást egyszerűen, gyorsan és sikeresen tanítani*. The same work was issued a few years later in German by Minckwitz, a professor at the University of Leipzig. In the preface Brassai says bitterly: „You will find some unusualness and novelties in it, my dear friend, to which linguists would pay homage if I had translated it from German language. But being Hungarian inventions, they have to beg to survive” (Brassai 1868:54). The real innovation in the 1840s, when the book was written, was that rules were missing from this book. Instead of them Brassai gave lots of examples when teaching a new bit of knowledge, based on which the students themselves formulated the rules. Brassai’s aim was that students should find out rules, not merely follow them. It was not until the 1880s that this system was propagated by the direct method. Brassai already applied it as far back as 1847.

He taught history and geography in the Unitarian College as well. He did not write a history book, though he worked out a geography book. In this he states that it is not good to start teaching Geography by explaining the shape of the Earth and its connection to the other planets. In this case the pupils believe what the teacher says, but are not convinced by it. He also used an analytical approach, i.e. the teacher started by teaching the relevant parts, then these formed a rounded whole.

Brassai published school-books besides his series. His textbooks spoke to everybody. They related to sciences such as mathematics, geography and agriculture. The students learnt rhetoric and syntax from Brassai’s school-book during the year 1843-44, when *Calculation for infants* and *Socrates, the Calculator* were published. Brassai showed unusual acumen in his *Business studies* book. Mineralogy was taught following the instruction of Brassai.

His books besides his series:

Bévezetés a Világ, Föld és Statusok Esmeretébe (Introduction to the knowledge of the World, Earth and States 1834)

A fiatal kereskedők arany ábéczéje (The gold alphabet of the young merchants 1847)

Algebrai gyakorlatok és kulcsok (Algebraic practices and keys 1853)

A mezőgazdaság kézikönyve (Agricultural handbook 1856)

Új Magyar Fűvészkönyv (New Hungarian herbal 1858)

A föld egyes részeinek földirati ismertetése (Geography of parts of the Earth 1862)

Euklides elemei (Elements of Euclid 1865)

Laelius, hogyan kell és hogyan nem kell magyarázni az iskolában a latin auctorokat (According to Laelius how we can or cannot explain the Latin authors 1870)

Számтан a népiskolában (Arithmetic in public school 1872)

Számvetés a népiskolában (Calculation in public school 1872)

Algebrai gyakorlatok (Algebraic practices 1883–84)

A növénynevek leírása (Plant identification handbook 1888)

He wrote his school-books in Hungarian; furthermore he taught only in Hungarian. Thanks to his articles, published in *Vasárnapi Újság*, the Hungarian language became formal in the upper classes in the Council of Korond (Corund) in 1841.

With the experience of half a century he wrote an article entitled „Miért és miképp írják a tankönyveket?” (What are school-books written for and how?) in *Néptanítók Lapja*. In this he notes tauntingly: „The short and apt answer to the former question is: for money.” (Mikó 1971:51.) To the second question he replies that the speculator gets the latest German book, translates it, reworks it then adapts it to the Hungarian curriculum and conditions. Adaptations can be found among Brassai's works too. He used mainly English books. His motivation was that the students acquire the material easily; therefore he also told them the difficulties that they might run into. He worked up the criteria of a good textbook, the most important of which is the good structure of the book that does not tie down the children's souls. He explained how wrong it is to start teaching a subject with definitions, because they should come after all the information on the subject matter has been given.

His theory always conforms to the exercises in his school-books. When writing about language teaching, he based his thoughts on methodological principles. About his algebraic workbook – written during his stay in Pest in 1853 – he stated the following: „I included new statements that had never been heard before. In consequence of this utterance the government did not recommend it even as a reference book as: Science and politics cannot be treated alike.” (Boros 1927:127.) He obviously felt bad about this decision of the government which he commented on in this way: „the book published at my expenses caused me a loss, mostly because my efforts were in vain” (Boros 1927:127). His students were enthusiastic about the book, because as they indicated, the real mathematical way of thinking cannot be learnt so clearly and understandably from other books. The main ambition of the mathematician Brassai was to give a good course book into the hands of young people.

The most significant creation of his mathematical activity was the first Hungarian translation of Euclid in 1865. He started to translate it already in 1832

using the original Greek text, which was published in 1826, and travelled to Vienna, too, where he compared it with the publication of Oxford, which he used to translate the missing part from. Earlier the Hungarian mathematical terminology was poor so he created new words to express the notions himself. There are not big discoveries to the credit of Brassai in Mathematics, but his big merit was the stressing of methodical learning of Mathematics and its working out.

His extensive knowledge of languages made it possible for him to follow the industrial world and financial world of western countries with attention. His book (its title is *Bankismeret*), was intended for every citizen to learn how far they could trust in banks, or at what size they mean danger. It contains practical advice for organizing the religious life on the western pattern in addition to education. He considered important the development of manufacture, trade and finance life, to civil society. He urged the possibility of giving credit to develop agriculture with agricultural machinery, which was prevented by laws then in force. He encouraged agriculture to take a capitalist path. In addition he urged reason and sobriety on people. His work, which shows he is to date up in economics, can be considered one of the best economic texts before 1848. Brassai recognized clearly, that economic growth is essential reviving Hungarian education besides the strengthening of morality.

IV. Conclusion and evaluation

The principle of his pedagogical work is that he considered schools to be educational institutes and the final goal of teaching was to form the educated mind. He gave preference to thoroughness over encyclopedic knowledge. Brassai's pedagogical system is the harmonious synthesis of his educational goals and methods. According to his educational goal the purpose of education is to create a good man and a good citizen. In his opinion this goal can only be reached if the school supplies the students with appropriate knowledge based on the requirements of the age and with the help of a well-chosen method. According to his principles education has to be natural, in harmony with the natural inclination of man. He considers senses, intelligence, memory, willpower and language to be very important for this. His educational principles are connected to practical experience.

His opinion about moral education was based on faith and unitarian religion. He was always a faithful unitarian. Unitarian faith believes only what it understands. It is believed that decent life can give us salvation not faith. But faith is the guide for a decent life – Brassai taught.

Brassai emphasized national education and national feelings at school; in this view he followed Vörösmarty. He thought that education must help arouse national feelings and strengthen them. He also said what is defined in NAT today: it is the task of the school to make the attachment to the country, the closer surroundings stronger and to create national traditions, patriotism with the help of

school subjects.

He left for us such a heritage that deserves respect and that we have to conserve and appreciate.

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