

Curriculum and education: A Parallel analysis in royal and regimental schools in the Trás-os-Montes province

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ABSTRACT:

Over the last two decades the field of History of Education, under the paradigm of Cultural History, has been broadened to other themes and problems. From this perspective, subjects, knowledge and practices have acquired significant centrality as research objects, thus, bringing History and History of Education closer together.

The following study focuses on the late 18th century to early 19th century period, with a view to legitimising as a new, modern, experimental and scientific pedagogical knowledge the (theoretical-practical) organisational knowledge forms, represented as essential to good pedagogical practice. The time span, covering the Illuminated Despotism and the birth of Liberalism, presents an element of uniformity on a socio-cultural level, as far as plans, curricula, school and didactic material, teaching resources and procedures are concerned, with profound references to the Pombaline reforms, created under the aegis of Illustration.

KEYWORDS:

Modern Teaching Practices, Royal and Regimental Schools, Local History of Education, History of School Material.

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The following study focuses on the late 18th century to early 19th century period, with a view to legitimising as a new, modern, experimental and scientific pedagogical knowledge the (theoretical-practical) organisational knowledge forms, represented as essential to good pedagogical practice. The time span, covering the Illuminated Despotism and the birth of Liberalism, presents an element of uniformity on a socio-cultural level, as far as plans, curricula, school and didactic material, teaching resources and procedures are concerned, with profound references to the Pombaline reforms, created under the aegis of Illustration. However, Liberalism, which was difficult to consolidate in our society, hindered a complete break with inherited educational structures, mainly due to the absence of plans, consistent with the revolutionary ideology.

In pedagogical terms, the entire period comes under the aegis of sensorial and rational education, naturalism and national and individual education.

The educational principles, conveyed through the Illustration/Revolution reform plans and in the general spirit of the 18th century, are, very briefly, as follows:

- Development of state education;

- Establishment of national education bases;
- Proclamation of the principles of free and obligatory universal education;
- Initiation of non-religious schooling;
- Organization of public education as a fundamental unit;
- Accentuation of a universalist and cosmopolist spirit;
- Primacy of reason and belief in rational powers in the life of individuals;
- Acknowledgement of nature and intuition in education (Esteban & Lopez Martin, 1994, p. 384).

It should be stressed that such principles do not always have an immediate impact on the school, which is generally reluctant to accept change, innovation or progress. Therefore, theory and fact, not always in perfect harmony, should be considered in the study of curriculum and education related aspects.

In the 18th century, with the direct intervention of the State in the planning, management and subvention of education, the political education of the State was born, giving rise to national education. Education went on to become a problem of the Nation, taking priority over the Church and Religious Orders. The teaching profession became secular and bestowed upon itself the power of thought and action in the lives and education of individuals. In this way, education became natural in its conception and useful in practice: there was no use preparing to die well, but rather to live well, and it was the

education of citizens and not subjects that counted. The State began to regard education as the vehicle for and instrument of national prosperity and power. Rousseau, on the other hand, points out that true human progress is the progress of life and not of knowledge.

As reflections of the socio-cultural context of a period, curriculum and education are, to a certain extent, the result of such a conception. It is on the basis of this principle that the material elements (buildings, school and didactic material), teaching and learning aspects (degrees, educational levels, programmes, methods and procedures) will be approached. The above-mentioned aspects will be analysed successively in both the royal schools and in the regimental schools of the army, which introduced a kind of pedagogical reformism to Portugal.

CLASSROOMS: SCHOOL AND DIDACTIC MATERIAL

In royal schools

Comenius (quoted by Rocha, 1988, p. 444, 540) says that the school should be a pleasant and attractive place, both inside and out. Inside, the building should be well lit, clean, decorated with portraits of illustrious men, maps, historical memories and bas-reliefs. If the lessons of each “class” were fixed to the classroom walls in summarised texts, as well as illustrations, portraits and bas-reliefs, this would stimulate the senses, memory and intelligence of the pupils every day. The teacher platform should be prominently positioned so that he/she is able to look around and not allow any pupil to become distracted. Furthermore, the school should be located in a quiet environment, away from noise and distractions.

At this time, it was common to find the royal school set up in a room in the teacher’s house. More often than not, there were poor sanitary conditions and very little, if any, teaching material. With the exception of the capital, there were no real school buildings, just makeshift spaces where the master and his pupils could be accommodated.

As far as the royal schools are concerned, we have no knowledge of any legislation regarding school buildings, nor anything related to school

hygiene and health norms. Santos Marrocos explains (1892) that in Lisbon, and seemingly this only applied to Lisbon, a subsidy of 100\$000 *réis* [former currency] per annum, exempt of *décima* and other taxes was added to the teacher’s wage for the classroom space. This measure was intended only for teachers of Latin Grammar, Rhetoric and the Greek Language, because in 1799 the same author said that in the Court there were “18 poor, unfortunate teachers, earning 90\$000 *réis*, who, upon deduction of the decimal, could only count on the rest to rent a teaching place called a Royal School”. On the same subject and around the same time, Bento José de Souza Farinha (1893, p. 264), is more explicit: “Our youth may be found in taverns, guest houses, in barbers or cobblers, in the offices of scribes and scribes and even in public gambling houses”. In short, there is no doubt that the majority of schools were set up in the teacher’s house, in compartments that were not always reserved for this purpose, even in the yard or on the steps (s/a, 1984, p. 44).

As far as the Trás-os-Montes Province is concerned there is very little information on what the physical space of the [Primeiras Letras] Primary School class was like. In most cases, the “classroom building” was the home of the teacher and his family, which frequently gave rise to complaints from the pupils’ parents. At home, with other chores to distract him, teaching time often suffered the consequences, as mentioned by the inhabitants of Castelo Branco, Concelho de Mogadouro, in 1822 in one of the articles of complaint against Father José Rodrigues Ribeiro, the Primary School teacher (IANTT [Portuguese National Archives], Ministry of the Realm [Home Office] Secretary of State, Box. 4294, 1822-1880). It should be mentioned that at the time, the housing standards were extremely poor and there were no available houses. As a result of this, the teachers, who had extremely modest living conditions, lodged in houses like barns (Box. 4393, 1822-1864). The classrooms set up in other buildings outside the teacher’s home were no better, such as those functioning in the convents or in one of their annexes. In 1831, one of the articles of complaint stated, in relation to the building for the classroom of Mogadouro Primary School, run by the Order of St Francis “the children are often forced away

by the rigorous winter cold and the excessive summer heat due to the unwelcoming classroom conditions where a stone floor and doorless space may be found.” Nevertheless, “over different periods of time”, this room had housed the private lessons of Philosophy and Theology for clergy and laymen, given by the Friars of this Convent (Box 4296, 1817-1865). It is even more interesting to verify how the Council of Outeiro was already sensitive to issues regarding customs and School Health and Hygiene. As far as the restoration of the village school, already underway in Argozelo, was concerned, it suggested that the school be moved somewhere else “because of the language and the salubrity of the air”. Argozelo, itself, a place full of tanneries, was filthy and putrid, making the air very unhealthy. Furthermore, it stated that “the idiocy of its people is so singular, it is different to all those from the Province and the Kingdom, and known everywhere for being highly degenerate and corrupt” (Box. 4297, 1802-1861). Indeed, these rivalries are still latent today, between a population of merchants (Argozelo) and another of farmers (Outeiro).

The premises for holding Latin Grammar, Rhetoric, Greek Language and Philosophy were no better. The Latin Grammar class in the city of Bragança is said to have been held in a building where “the students could not even fit standing”. This was after the teacher had been evicted from one of the houses in the Rua Direita by the landlord who needed it at the time, and the Council in 1817, obliged by law to provide lodgings for teachers, had found him one where there were only benches for 4 or 5 pupils. Under such circumstances, the teacher refused to take on any more students unless they brought their own benches from home (Box.4301, 1800-1864).

During the period in question, the school had extremely precarious physical conditions. The most common type of furniture, a luxury when there was some, was composed of a few tables and benches in untreated pine.

There was very little didactic material, school-books or basic every day articles. The lack of establishments selling school material and the poor wage of the primary school teacher contributed, partly, to his becoming, as Santos Marrocos describes (In *Revista de Educação e Ensino*, No. 12, December

1892, Year VII, p. 541) a kind of knickknack seller in every school, selling paper, ink, pencils, tables, staffs, rulers and folders.

As we can see, the local community and authorities were quite aware of the moral and material problem regarding the location where the teaching/learning process was taking place; the central government was informed, but remained indifferent to the situation. The decree of September 7th 1835, which did not take force, awoke from this stupor, took control of the situation and tried to find a solution for the problem that was affecting the entire country, stating “that all the schools will be established in appropriately prepared public buildings for this purpose, under the responsibility of the government”. Furthermore, “the establishment, maintenance and preservation of all the other schools in the kingdom will, from now on, be the responsibility of the respective Municipalities or parishes to which they belong”. After contemplating a wage compatible with a decent and proper life for teachers, it went even further to give them the right to accommodation either in or adjoining the school building (Decree of September 7th 1835). It is a pity that such encouraging promises were never kept. The depleted treasury didn’t even have money to pay the teachers’ wages in arrears.

In regimental schools

With the advent of Mutual Education, these aspects of crucial importance were taken seriously in the school learning process and the need for adapting the “classroom location so that it only serves the function” it was intended for was realised (Quoted by Beja *et al.*, 1987, p. 44). For the very first time, a clear difference between the space of the school and the teacher’s lodgings was established, with each functioning in its own separate location. Charts were published, helping to solve the problem, based on the number of pupils to be accommodated as well as the measurements of the classroom. Thus, it was possible to determine the number of pupils a room could hold, the number of benches and desks, its length and the number of pupils who could fit onto each bench (Marreca, 1835, pp. 34-35).

The opening of the military schools was accompanied by a series of concerns regarding the location for the classroom and its basic equipment, in

terms of school and didactic material. The lack of a location or suitably qualified teacher was often the cause of delay in the opening of these schools. They were established both in and out of the barracks.

As regards the regimental schools in Trás-os-Montes we do not know where they were established. Given the lack of public buildings available in the region and the tight control of expenditure these schools were subject to, presumably, they functioned in the barracks of the regiments.

However, we have no doubts that there were concerns with finding a location that respected the requirements published in the charts. For instance, there was a long and complicated controversy over the establishment of the school of the Regiment of Cavalry 1, in Lisbon, evicted in 1822, from the Casa do Pátio das Necessidades, where it had previously functioned, as the premises had been lent to the Court Tachygraphs. There was a house in Cova de Mouro Street, but the rent was far too expensive (43\$200 réis) and it was decided that it should be installed above the Regiment Dungeons, a place that had been occupied by soldiers for years. Indeed, the house boasted a room, which measured 40 palms in length, and 26 in width, an excellent space that would provide a wonderful “classroom”, however, it needed “two window frames, white-washing and having the ceiling plastered”. At the time it was occupied by horse-riding equipment and two tailors. A Royal Dispatch sent the Barracks Brigadier Inspector-General to take further measures in finding a building close to the barracks, but there was still no success. Finally, the King solved the problem by commanding the school to continue in the Casa do Pátio das Necessidades, where it had previously functioned, since it would not bother the Court Tachygraphs in any way and owing to the fact that it had not been the Courts that had ordered its removal (AHM, C. 13, Proc. 58). Therefore, the choice of location was fundamental, even though there is an implicit overlapping of the terms class building and classroom. The actual school, itself, was a room that, in this specific case, was 40 palms in length and 26 in width. According to the above mentioned tables (charts), the room had the capacity for 256 pupils, the surface was around 1147 square feet, it could hold some 16 benches, 18 feet and 8 inches in length, which could each seat 16 pupils,

leaving room between the teacher’s platform at the back of the room and the first row of desks, for a row of 3 circles (Calculations based on the tables published in the *Jornal Mensal d’Educação* [Monthly Educational Journal], No.1, October 1835). In this environment, approximately 0,5 m2 was allocated to each pupil, which still fell considerably short of the norms published in the mid nineteenth century, prescribing a surface area of between 1 m2 and 1,90 m2 per pupil (*Diário de Lisboa*, No. 163, 1866).

As far as school material is concerned, very few rooms are believed to have been equipped with benches and desks. The rooms probably had pine tables and stools that the pupils had to bring from home. By law, all classrooms were entitled to a cupboard, 8 palms in height, 3 in depth and 6 in length to file books and school objects. There was an obvious desire to make the classroom a clean, neat and organised environment. At the door of the classroom there was a hat and cloak stand and the teachers desks were covered in oilcloths, which were replaced whenever cleanliness or decency required (AHM [Historical Military Archive], Box. 13, Proc. 62).

The inventory of the classroom objects of the Cavalry Regiment no. 9 — Chaves (AHM, Box.13, Proc. 2) gives us an idea of how these schools in the Trás-Os-Montes Province were equipped.

TABLE 1 — STATE OF DIDACTIC AND SCHOOL MATERIAL IN THE CLASSROOM OF CAVALRY REGIMENT 9 — CHAVES

NEW	DAMAGED
5 desks with drawers	4 shelves
5 desks covered with oilcloths	4 trolleys
18 stools	1 tub
2 chairs	
1 inkpot and sand-tray	
6 shelves	

The school had very rudimentary equipment, which was probably no more than what most of the other schools also had. Another example is the regimental classroom of the Batalhão de Caçadores 6 [Caçadores Battalion], in the city of Guarda, which presented a very similar record of material (AHM, Box. 12, Proc. 54). A lack of financial resources was probably the main obstacle for the provision of more, improved school material, a requirement according to the new standards.

Didactic material appeared with the introduction of the “New Method” of Mutual Education practised in these schools, namely: calculating tables, compasses, bells, hourglasses, trays with wheels for sand, stone quills, etc. (AHM, Box. 13, Proc. 62).

The school manuals used in regimental schools were the same as those of the Escola Geral de Belém, where teachers and assistants were trained, and almost all written by its Director.

The following manuals were used in Portuguese Language:

1) - *O Novo Methodo de Ensinar e Aprender a Pronunciaçã e Leitura da Lingua Portuguesa* [The New Method of Teaching and Learning the Pronunciation and Reading of the Portuguese Language], created according to the principle that teaching how to read consists, essentially, of “making the letters known by the name of their pronunciation in the syllables that are formed by them”. Entitled “New Method”, its application was compulsory in schools and teachers who did not practise it were immediately dismissed. For an effective use of the method, it was determined that 3 “Alphabets”, 1 “Syllabary”, 1 “Vocabulary”, 2 “Phrases” and 2 “Sentences” should be distributed throughout each Army Corps;

2) - *O Novo Epitome de Grammatica Portuguesa* [The New Epitome of the Portuguese Grammar], used in the lessons of Etymology, Syntax, Spelling and Punctuation;

3) - *A Nova Arte de Ensinar e Aprender a Escrever* [The New Art of Teaching and Learning to Write], used in the Writing lessons, contained the rules on the “form, proportion, and size of capital and small letters, slant and reciprocal distance”.

Arithmetic lessons were taught through *Elementos Compostos - Para uso dos alunos do Real Colégio Militar da Luz* [Composed Elements – For the use of Pupils at the Real Colégio Militar da Luz] which dealt with the general principles of numeration, the fundamental operations of the composition and decomposition of whole numbers, the fundamental operations of the composition and decomposition of fractions, the fundamental operations of the composition and decomposition of complex numbers and, finally, the ratios, proportions and their application to the rule of three (*Instruções para os Professores das Escolas de Primeiras Letras dos Corpos de Linha do Exército* [Instructions for the

Army Corps Primary School Teachers], Secretary of State, October 29th 1816).

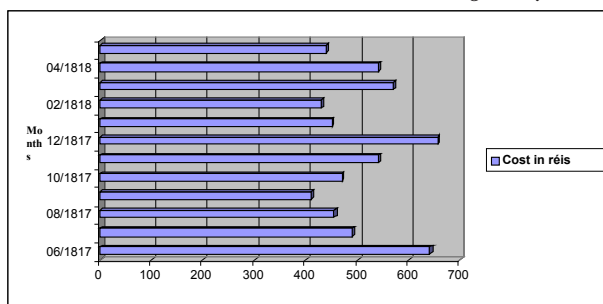
Objects of every day usage were, clearly, as follows: inkpots, sand-trays, white chalk, half-pound sponges, foolscap, ordinary paper, writing ink, quills, etc. (AHM, Box. 73, Proc. 15). The material needed for the running of the school was acquired through the financial resources to which each school was entitled. Calculated at 8\$000 réis per year, the teacher of each school received \$665 réis per month. With this sum, the teacher paid for the articles required for his official correspondence and for the school (AHM, Box. 13, Proc. 61).

To exemplify, examine the following table and graphs which give us a perspective of the expenditure regarding paper, ink, sand, quills and other materials for the functions of the School of the Regiment of Cavalry No. 9, in Chaves, during the period between June 1817 and May 1818 (AHM, Box. 12, Proc. 14).

TABLE 2 — EXPENDITURE OF THE SCHOOL OF THE REGIMENT OF CAVALRY NO. 9 1817-1818

Months	Cost in réis
June/1817	\$640
July/1817	\$490
August/1817	\$455
September/1817	\$410
October/1817	\$470
November/1817	\$540
December/1817	\$655
January/1818	\$450
February/1818	\$430
March/1818	\$570
April/1818	\$540
May/1818	\$440
TOTAL	6\$090

GRAPH 1 — EXPENDITURE OF THE SCHOOL OF THE REGIMENT OF CAVALRY NO. 9 1817-1818



As we may observe, the total cost does not exceed the legal amount. Our reading of graph 10 leads us to conclude that the months of greater expenditure coincide with the months in which there are exams: June and December. The months with a low rate of expenditure are: September, February and May, followed by January, August, October and July and, finally, April, November and March. Since the expenses are related to pupil attendance, we are led to conclude that the attendance rate in these schools, with a high percentage of civilian pupils, had very little or hardly anything to do with more intense periods of work in the fields or related to the winter season.

Besides this official sum, spent on the general running of the school, didactic and school materials were also provided by the Ministry of Defence, not always with sufficient regularity, owing to the low budget allocated to school expenditure. For example, the teacher of the afore mentioned school, which has provided us with more information, complained monthly from September 1817 to July 1818, on a fairly regular basis, about the shortage of slates. (AHM, Box. 12, Proc. 28 and Proc. 50).

In order to suitably equip these schools, in 1822 the director placed an order for material required among the schools “but so as not to overburden the Treasury”, only the most urgent requirements were dealt with, such as compasses and calculating tables without feet to avoid doubling an expense that had already reached 112\$060 réis. The Director of the Regimental Schools, perhaps as a result of his pedagogical perspective, could not understand the cutback in the triangular feet of the calculating tables. However, given the precarious state of the Treasury, his superiors stated that the tables could perfectly well be “hung on the walls with the necessary inclination”. As regards the provision of cupboards and oilcloths for the teachers’ desks, which had already been requested in 1817 and was valued at 1251\$400 réis, only the Infantry School no. 1, in Lisbon received it (AHM, Proc. 28 and Proc. 50).

In spite of the financial limitations, we must acknowledge that this area deserves a positive classification. For the first time, the pedagogical space was a cause of concern for those in charge of education. The norms established for the choice of location as well as the clear instructions regarding didactic

and school material lead us to conclude that these schools presented better standards of hygiene than most royal schools, for which the construction of school buildings was only officially legalised in the mid nineteenth century. This boost was brought about by “Conde Ferreira”, who, in his will registered in Porto on March 15th 1866, left a large sum of money to the State for the construction and furnishing of 120 buildings for mixed sex primary schools. All these buildings were to have a single plan including accommodation for the teacher and the cost of each house and its furnishings could not exceed the amount of 1 200\$000 réis. In addition to forcing the Government to take full responsibility for finding suitable premises for the functioning of primary schools, this will raised the issue of a need for legislation on the matter. Hence, by means of Ordinance dated 21st July 1866, the first norms for the construction of buildings, furniture and school materials were published, in which the rules regarding hygiene were still not fully addressed, since there were no references to lavatories, washbasins or the supply of water (Beja *et al.*, 1987 , pp. 53-59).

THE SCHOOL LEARNING PROCESS: TIMES, WAYS AND MOTIVATIONS

In royal schools

The *Carta de Lei* [Charter] dated 10th November 1772, the document that instituted and controlled official education was, more than anything, a protest against the education of the Jesuits, which was eventually abolished. Their schools were closed and their methods forbidden.

Profoundly elitist, Jesuit education determined the most suitable education for each social class. For those working in the country or in industrial arts, parochial education, in other words, Religious Instruction, was sufficient. For those involved in produce, they would only need to learn how to read, write and count. Latin Grammar was for those who wished to pursue an ecclesiastical career or that of a juror and Philosophy, the subject giving access to higher education, was exclusively for those who were predestined to lead the Nation’s destiny. It was, therefore, based on educating citizens according to their social status.

As far as the organisation of primary school was concerned, the official legislation was very concise,

only specifying the programme and timetable. Norms, means and procedures were consulted in dispatches from the *Junta da Directoria Geral dos Estudos* [the Directorate-General Council of Education] and mainly in the school manuals.

The elementary school programme was made up of Reading, Writing (with particular emphasis on hand-writing), Spelling Rules, Elements of Morphology and Syntax, Arithmetic (the four operations), Religious Instruction and Civil Rules. There was a six-hour per day timetable, three in the morning and three in the afternoon; Thursday was a holiday and the summer holidays were restricted to the month of September. There was a week for Christmas and Easter.

As a matter of fact, the curriculum was limited to reading, writing and counting. Progression in the acquisition of this knowledge was what led the teacher to form divisions, sections or classes. “Class I” included those who could read, write and count; “Class II” was for those who weren’t bad at reading and were just beginning to write and count and “Class III” for those who were beginning or who could already spell catechism (AUC [Coimbra University Archives, Box Education, Primary School Teachers, 1813-1815]). There were schools with an even more limited curriculum where only reading and writing was taught, such as the case of *os Arrabaldes de Vilar Seco de Lomba* [the Outskirts of Vilar Seco de Lomba], in 1802-03. In this school, those who could read and write were in “Class III”, those who were starting to read in “Class II” and the complete beginners went to “Class I” (IANTT, Sec. of State, Box. 4295, 1820-1880). These reading and writing schools were frequently referred to as “Portuguese Grammar Schools”.

In the least populated schools, the most common teaching technique was the individual approach while in the most populated the simultaneous approach was practised.

The individual approach consisted of teaching each pupil separately, allowing the teacher to adapt to the rhythm of each child, however, this was not a suitable technique for larger classes. Punishment was often called for and when the situations were well exploited by the teacher, the pupil was prevented from measuring forces with his peers, as a way of stimulating learning and socialisation.

The simultaneous approach, which was widely practised by the brothers of the Christian schools, split the pupils into sections, depending on their level of knowledge. Therefore, instead of taking care of one single child, the teacher, in the same way as individualised teaching, simultaneously took charge of a section. Furthermore, the collective educational environment triggered a sense of pride among the section members and also favoured discipline, since the child was constantly occupied. In order to accomplish all this, the teacher counted on the collaboration of assistants, also called monitors or tutors, recruited from among the older and more advanced pupils. There were other assistants to maintain order and discipline and to control the work pace while the teacher was successively occupied in teaching the different sections. This technique also had its drawbacks, especially in terms of classifying the pupils in sections. The number was supposed to allow each student to be put in the level he actually corresponded to. This sometimes led to an increase in the size of the sections, thus, restricting the time the teacher spent with each pupil. On the other hand, the number of pupils placed in each section was supposed to be limited in order to maximise the teacher’s performance. For these reasons, when the school had more than 50 pupils, the simultaneous technique was impractical (Gabriel, 1990, pp. 379-380).

The work *Nova Escola para aprender a Ler, Escrever e Contar* [New School for Learning Reading, Writing and Counting] (s/d, p. 9-15) by Manoel de Andrade de Figueiredo, a real treatise of methodology and a clear demonstration of the pre-Pombaline author’s pedagogical awareness and shrewdness, enables us to reconstruct aspects of the weekly workload of a primary school, no different to any Pombaline or post-Pombaline school. The teaching practise revolved around the Christian Doctrine. Therefore, a lot of time was spent on the teaching of the Doctrine prayers, which was spread over every day of the week, beginning on Monday with the Our Father and ending on Friday with Confession and the Act of Contrition.

An hour before the teacher’s arrival the pupils would give lessons to each other. In the case of schools with a lot of pupils, the teachers would elect two children to take in the homework and to

report those who had not fulfilled their obligation. This was how the day began, with homework correction and calling the register, so that the teacher would know who was absent because it was his duty to know who they were since “they disobey their father and God both in education and in good manners”. Then the singer would say the prayer of the day, and the others would repeat aloud. This would be followed by a chapter from the Evangel or the teacher would show them how to serve in Mass. Those who could read would go on to study two chapters of the *Cartilha* [Reading Book/Catechism Book] by heart, which was repeated aloud for the others to learn. Then the teacher would select children to “take the lesson” to the beginners who “were supposed to take turns and would not be informed in advance, but expected to perform at random”. As soon as the beginners had finished their lesson they would leave “in order to relieve the school” and the teacher “gave the lesson” to these assistants, called scribes and scribes for their position in the process.

Friday afternoon was spent on revision. The pupils taught each other prayers for an hour, after which the teacher sat down to ask about prayers, the mysteries and serving in mass “and throughout this exercise he must ensure that the children pronounce and speak well, because I have noted that what they learn wrongly, even in Latin, they never correct” He would finish by asking for the General Confession, to which great importance was given. The time that was left on Friday afternoon was given to “discussion on addition, tables, subtraction and division”, “because when beginners are taught this subject matter, they learn it faster and teachers’ work is simplified”.

This methodology was an imitation of the type of revision practised in the Jesuit schools, which shows that the primary schools also adapted their pedagogy from which, in the classes open to the public in some of their schools, they were excellent teachers. Bragança and Braga are examples. The method of mutual education, which became known later on, was already foreseeable. The use of tutors, “more accomplished pupils”, employed by the teacher to listen and “give” the lesson to those who were behind with their studies, was a very common practise in schools of the 18th and 19th centu-

ries (IANTT, Sec. of State, Min. of the Realm, Box. 4296, 1817-1865).

The author of *Escola Fundamental* [Fundamental Schooling](1816, p.64) was less explicit when he highlighted the need for specific days for the teacher to instruct the children: settling money on Monday, creating themes on Tuesday, prayers on Wednesday, etc., making them practise the pronunciation of syllables, tables, definition of weights, the reading of a book, the writing of a Portuguese prayer, “this makes them apply and not forget what they have learned.” As one may understand, there were no fixed timetables, the teacher was sovereign to decide how to spend the time in class, distributing it over different topics.

Religion had a strong influence on education and this aspect was maintained in the Pombaline Reforms. Pombal cut off the Jesuits but not the church. The teaching of the Christian Doctrine continued to be part of the official programme and D. Maria and King John VI paid particular attention to this, encouraging teachers to explain and practise it with their pupils.

An aspect of the Pombaline Reform in 1772 worth mentioning is the insertion of a Compendium of Civility in the primary school programme. The second part of the *Escola Popular das Primeiras Letras* [Popular Primary School], by Jerónimo Soares Barbosa (1796), presented the Catechisms of Christian Doctrine and Civility for instruction and the teaching of how to read. Catechism of the Doctrine was divided into two parts: the first included the Compendium of Faith to be taught by heart to those children who couldn’t yet read, and the second part was made up of a small catechism for those who were already able to read to be learned off by heart. Simultaneously, they were taught how to recognise and distinguish capital and small letters and to read letter by letter. The catechism of Christian Civility which was to be taught to the young school population, contained norms regarding Christian Civility and knowledge for living in the world: movements, words and actions, based on a modest attitude, humility towards one’s superior and charity towards one’s neighbour. In addition to the birth of these attitudes and values, rules related to personal hygiene and cleanliness, dress codes, eating at the table, being in church,

addressing the teacher, parents and peers were instilled in the pupils.

The school manuals, commonly called *cartilhas*, were made up of the Christian Doctrine and Civility, the alphabet in capital and small letters, syllable charts of the Portuguese Language for reading, the main rules for forming letters, spelling rules so as to write reasonably and the rules needed for counting in an intelligible manner. Therefore, this single book contained what would probably have been necessary to look up in a number of others.

Liberalism maintained this structure, also adding Constitutional Catechism, a vehicle for liberal propaganda geared towards preparing the citizen as an elector. The contents of the elementary and secondary school programmes underwent considerable alterations in the reforms of 1836 and 1844, inspired by Portuguese Liberalism, which, as we already know, based its principles on those of the already established democratic European countries.

The reading, writing and calculation procedures were registered, in the form of a summary, in the *cartilhas* and used to examine teaching candidates. Due to their structure and content, the school manuals were aimed more at the teacher than the pupil, which leads us to conclude that the teaching of reading, writing and calculation rudiments was, essentially, based on parietal tables with alphabets, syllabaries, figures, etc. Catechism and images, provided by the teacher or brought from home by the pupils, were the basis of reading and writing.

The teaching of reading and writing was strongly associated with the teaching of the Christian Doctrine. Before they could barely speak, the children began to learn the first Christian prayers by heart. At the age of 5 or 6, they learned the Compendium of Religious Instruction by heart while simultaneously learning to recognise and distinguish capital and small letters from the alphabet and to pronounce syllables. Once they were able to join the syllables, they started to read with name charts where the syllables were divided.

The introduction to reading method was the ABC (former reading technique), also called the alphabetic method and literal method, since it was based on the previous knowledge of the letters in their alphabetic order.

It was assumed that knowing how to read was not solely about recognising the letters but also the composition of the syllables with which the words were formed. Therefore, the letter “a” is a tiny part of the composed voice, the syllable is a more perfect tone, made up of one or two consonants whose voice is always in harmony with a vowel, because the syllable that derives from a single vowel, without a consonant, is wrongly called so and is, in fact, a monogram, according to authors”. The word was considered a significant, perfect and whole explanation, composed of different syllables. Based on the different characteristics of each one, the letter “a” is easily understood in meaning, the learner is told what it is called and, by handing this over to his memory, he will always remember it”. They then went on to the formation of syllables, “the pupil’s most important and greatest task, during which the teachers must be particularly careful, using the most suitable resources, which should be gentle and easy, so that the young apprentice is able to understand the composition of syllables easily” (Figueyredo, s/d, p.18). When he began the reading exercise, the pupil would repeat all the spelled out syllables until the word was finished. For example the word *amizade* (friendship) was spelt as follows: a; m, i, mi, ami; z, a, za, amiza; d, e, de, amizade. The common habit of adding an “a/an” to each letter was considered useless and harmful to the pupil’s internalisation and was strongly discouraged (1816, p. 59). So then, first they learned the names of all the letters in alphabetic order, then their form, then their value and later on they used them to form direct, opposite and mixed syllables which were then formed into words.

This method, which was used throughout the 19th century was a detestable and bothersome one due to the fact that the spelling exercises were abstract and boring, making it an entirely unpleasant experience for the child. It was a memoristic method, which did not respect infantile syncretism nor the syncretic, analytical-synthetic pace of the mind in the discovery of the truth. In order to attenuate this problem, some educators resorted to the iconographic process of mobile letters and other procedures to make the experience more pleasurable. In 1539, João de Barros published his “*Cartilha de Aprender a Ler*” [Learning-to-Read

Book], in which he adopted the alphabetic method, which had been improved by the picture process, in which the names began with the letter that was to be taught. In the *Cartilha* published by the Monks of the Cartucha de Évora, in 1785, to which Father Inácio Martins associated his name, we find the alphabet on the first page followed by the famous sphere with this piece of advice around it: “Children, if you know how to enter this sphere, you will know, by using syllables, how to spell properly”. So it was quite a skilful way of highlighting possible combinations of letters in syllables (Gonçalves, s/d, pp. 81-84).

It was acknowledged that it was a long and tiresome process. It took a child between five and six years to read and, by the end of the process, he had hardly improved because the teaching/learning procedures were clearly incorrect:

a) The children began learning with a handwritten letter, even though theorists had advised the printed letter for beginners, in order to reduce the amount of time spent on the task by half;

b) Most teachers only taught them how to pronounce the syllables from two to three paragraphs of the charts, which obviously covered just a small number of syllables, “leaving the disciple in the ignorance of more than one thousand, six hundred and forty others in the Portuguese Language, so that since they can not pronounce them, when they are ordered to read a manuscript or printed text, they will astonish or tire the teacher with questions” (A. G. P., 1805, pp. 1-2). The most crucial part of the learning to read process was, then, the learning of syllables, performed almost always in an incomplete and irrational manner;

c) The bad habit of spelling out, instead of facilitating learning, distorted reality and upset the normal learning pace. Soares Barbosa proposes that the old method be dropped and the phonic or new spelling method, proposed by Arnauld and perfected by Mr. Launay be adopted, in which “syllables are named for their own value and no other sound is allowed in the pronunciation of any syllable, except for the ones that are part of its composition” (Fernandes, 1994, p. 248). As we will see, this method was followed in the regimental schools where a more modern methodology was practised. In the royal schools, under prepared teachers continued to

use the older teaching practices. The children, with great difficulty and over long periods of time, would gradually learn because at such an age, the mind is fertile and knowledge is acquired in any way.

Writing, in its components (handwriting and spelling) was equally difficult and its learning process was only initiated after the children were reading freely.

The writing methodology was generally preceded by brief considerations of the accessories, materials and writing instruments, and furthermore, some warnings regarding posture, holding a quill, hand movements, etc.

By accessories, we are referring to a seat, sideboard, an inkwell prepared with “poedouros” [ink cloths] in raw silk and good ink. The inkwells were required to be constantly full so that it was only necessary to dip in the tip of the quill.

The writing materials were paper that had to be light, plain, straight and well pressed and ink. The latter was made of crushed galls (4 ounces), ground green caparosa (2 ounces), Arabic resin dissolved in water (1 ounce) and candy sugar (1 ounce), these ingredients were infused for six days in a quart of rain water or good white wine or half of one and half of another of these products. It was mixed from time to time and strained for serving. In order to make the ink shinier a little kneaded bread loaf was added and also an ounce of ground hume stone to stop the paper from soaking through.

The most common writing instruments were: the ruler, pencil, compass, staffs, quills and a penknife for clipping them. The feathers from the duck’s right wing were the best. The nib, in general or in its species, was essential for good writing and it was made according to a set of procedures depending on the type of writing it was destined for, such as slanted, roman or thick romanisque.

Under no circumstances should the rules regarding posture, holding the quill, hand movements, fluctuations of the quill and its effects be neglected (Barbosa, 1796, p. 66).

The synthetic method was used for the introduction to writing. The child began by forming stems, then models of ll, cc properly and cc back to front so that it would be easier to form bb, dd, oo, xx. Then they would do ii to facilitate the outline of ee, aa, mm, rr, tt, uu. Having accomplished this,

they would go on to do jj, ff, gg, qq and, finally, ss, zz. This would be followed by an outline of capital and small letters and they would finally start to write. To be more specific, learning to write passed through the following stages:

a) Introductory exercises that consisted of drawing straight, curved and mixed lines. On this level, Jerónimo Soares Barbosa (1796, pp. 44, 56-57) suggested that these exercises be done “without ink” so that the hand would get used to the different contours and the child would “engrave in his mind and memory all the situations and effects of the quill that compose them”;

b) Learning the outline of the capital alphabet, followed by the small letters;

c) “Joined” writing with the help of stave sheets and good images, “in front of the teacher so that he may illustrate where the letters begin and end, the length of their stems, the spaces from letter to letter and the way of holding the quill” (Por Hum Professor, 1816, p. 66).

When he could write reasonably, he would go on to learn some more general spelling rules, through themes and discourses.

The orthographic issue, which emerged at the end of the 18th century, seriously hindered the teaching of spelling, in which phonic and etymological spelling instigated a heated battle. In primary school education, the methodologists, such as Soares Barbosa (1796, pp. 56-57), recommended the phonic method for being within the people’s grasp and “for being a spelling rule of writing as we pronounce”, said the unknown author of *Escola Fundamental* (1816, p. 75).

In Arithmetic, the practice of sums was preceded “by the teaching of figures”. This was followed by the two types of adding and subtracting, tables, definition of weights and measurements, coin distinction, roman sum, multiplication, division and general arithmetic rules. The author of *Escola Popular* (p. 12), however, indicated a broader programme, adding to it the division of complex numbers or “caixaria” [accounting], the rule of three, simple and inverse, direct and compound, the interest rule and company. Nevertheless, it should be noted that in the majority of schools, the programme did not function beyond the four operations when they were practised.

In the “teaching of sums”, it was essential for everything to fit into a detailed explanation so that the child could understand and fully grasp the basis of what he was learning (Por Hum Professor, 1816). It was only in this way that he could apply the knowledge acquired at school to his daily life.

In a school where the schoolmaster constantly relied on tutors, it was advisable to have exams on a weekly or fortnightly basis. These exams, called corrections, consisted of the master giving the lesson to the beginners, studying them to verify if “they recognise the letters, know how to join them, and if they don’t, inquire whether it is the fault of the tutor in order to change them over to another one and, when they perform well, the tutor is awarded a prize so that the others will also strive to be rewarded”. Then the exam for the scribes and scribes would be held. It was, therefore, the mixed teaching method that was used, especially when the classes were large. With average-sized classes, the most advisable was the simultaneous method, and with small classes, the individual.

A certain amount of patience and prudence was recommended of the schoolmaster in relation to his pupil. Love and persuasion were the most efficient means in the education of the young school population. Whenever necessary, it was considered to be a remedy, because “God punishes those He loves”. On this subject, the schoolmaster was to be prudent, because “the schoolmaster who takes strictness to the extreme, scandalises rather than teaches” (Figueyredo, s/d, p. 5). Complaints against schoolmasters who mistreated the pupils were infrequent, which leads us to believe that the 18th century society tolerated, in general, corporal punishment in education.

As for the schools of Latin Grammar, Greek Language and Rhetoric, the Instructions that accompanied the *Estudos Menores* [Minor Studies] in 1759, specified the methodology teachers were expected to use in the teaching of these subjects. It openly rejected the Jesuit method and proposed that the former method, which had preceded the entry of the Jesuits in Portugal, be reinstated. This method was far simpler, clearer and much easier and was practiced by the more developed European nations. Although the term “reform” was used on the actual licence, it was not exactly a reform

but, rather, a replacement of one method (Jesuit) for another that had already been used two hundred years earlier, with what were considered to be the essential updates. The subjects continued to be the traditional ones and the aim behind the teaching of them remained the same: to breed useful citizens for the Fatherland, men of solid and mature judgement, capable of occupying administrative posts (Mesquita, 1760).

As far as Latin Grammar was concerned, it prohibited the use of the Grammar by the Jesuit, Manuel Álvares and his critics (António Franco, João Nunes Freire, Joseph Soares and especially Madureira) and all the bulky old books used until then for making Latin Studies more difficult. Anyone who broke the law would be arrested and would never be able to open study lessons again. The recommended Grammar, and the one strictly obliged by the licence, was by Father António de Figueiredo, *da Companhia do Oratório de S. Filipe de Néri* [Order of the Oratory of Saint Philip of Nery]. The Orators, as may be recalled, enjoyed the pleasantries of King John V and, during this period, played an important role in the crisis education underwent with the Jesuit ban.

The new method for Latin Studies was integrated in the system of Lancelot and adopted the doctrine of Gaspar Schioppio, of Gerardo João Vossio, of Francisco Sanchez, etc. The lesson was not to be taught in the Latin language, as the Jesuit schoolmasters had done, but in the Portuguese language. The actual notions of the Portuguese Grammar were to be taught simultaneously, whenever an analogy of rules between the two languages emerged. After internalising the rules, they would move on to texts by Latin authors, accessible to the understanding of the pupils, teaching them to read and articulate properly. The use of *Minerva* by Francisco Sanches and *Spelling* by Verney was strongly recommended. Finally, when the pupils had mastered the translation of prose they would move on to Poetry. The schoolmaster was required to be extremely careful in making them see the differences between the study of poetry and prose, the quality of the verses and everything related to its material form. For the teaching of Poetry, the collection of Chompre was recommended. In short, the successive material that formed the Latin Grammar course consisted

of the following: etymology of the noun, etymology of the verb and indeclinable words, syntax, further clarification for the construction of Latin authors and collection of themes, orthoepy and spelling, metric art and poetic figures (Vasconcelos, 1838).

At that time, the Latin language, immersed, of course, in the teaching of the Catholic religion, “one of the indispensable means of preserving Christian unity and Civil Society and of giving virtue its true value, good education and the teaching of the youth”, continued to be the basis for all school education. It is, therefore, of no surprise that the Instructions in paragraph XVIII dealt expressly with the obligation of the teacher to instruct the pupils in Christian duties: to attend mass, go to confession and communion. Paragraph XIX encouraged the teacher to instil in the pupils respect for one’s ecclesiastic or secular elders (Ferrão, 1915, pp. 71-73; Carvalho, 1986, pp. 431-433).

The Greek language lessons occupied only two and a half hours in the morning and two and a half in the afternoon, from which half an hour was taken to revise Latin.

In spite of being considered more difficult than Latin, the Greek language was, in fact, easier when it was well taught. After the introduction to reading and writing, grammar was studied through the *Epitome do Methodo de Port Royal* [Epitome of the Port Royal Method], translated into Portuguese. As far as dictionaries were concerned, the *Serevelio Manual* was considered sufficient; however, the demands were much higher for teachers, not only in terms of dictionaries but also regarding other works.

It was recommended that, instead of many compositions, the teachers should “make them translate references from Greek into Latin and Portuguese”, since it was a way of bringing them on in Greek and practising Latin. The more advanced pupils who wished to perfect their Greek, could read Homer (Ferrão, 1915, p. 73; Carvalho, 1986, p. 433).

The study of Rhetoric was to be based on the Quintilian institutions in Rollin’s school edition. The teachers were advised to use the works of Aristotle, Cicero, Longuino, Vossio, Rollin and Friar Luiz from Granada. For the practical study a selection from *Prayers* by Cicero and from *Tito Livio’s* first books was recommended; for the study of

styles, Heinecio's book. The study of Philology and Criticism was recommended and the eloquence of the pulpit and forum were not to be forgotten, on which the students were to spend more time. It was also suggested that they should carry out two public acts per year, with commentaries and explanations of the studied authors.

The pupils from inferior schools who wished to take a university course still had a year of Philosophy, during which they were taught Logic and Ethics (Ferrão, 1915, p. 83). The Portuguese language was not on the list of secondary school subjects, but it is understood that it was taught by the Latin Grammar teacher. According to the license of September 30th 1770, the Portuguese Grammar used by the schools was the one by António José dos Reis Lobato (Carvalho, 1986, p. 455).

As we may observe, the secondary school subjects did not comprise an appropriately organised course since teaching them depended on the possibilities of the teaching establishments. Latin Grammar was by far the most frequented subject, owing to the demand for these studies by those who wanted to be jurors or to follow an ecclesiastical (secular or regular) life.

In regimental schools

We have already seen that the "*Instruções para os Professores das Escolas de Primeiras Letras dos Corpos de Linha do Exército*" comprise, in a very elementary way, a properly organised curriculum and a guide for the teacher in his educational activities.

There were no fixed dates for enrolments. Just like the civil schools, the pupil could enter or leave the school at any time of the year.

The school timetable seemed to be paced according to the training lessons of the soldiers. There was a winter and summer timetable. During the winter one, which covered the months from October to March, classes lasted for 5 hours and thirty minutes; during the summer timetable, which corresponded to the months from April to September, classes lasted 6 hours. During the winter timetable, the morning period began at 7 a.m. and finished at 9 am; the afternoon period began at 1p.m. and finished at 4.30 p.m. During the summer time table, the morning period began at 10 a.m. and finished

at 1 pm; the afternoon period began at 3 p.m. and finished at 6 pm During the weeks without a holy day, Saturday afternoon was a holiday. The Christmas holidays began on the eve of the birth of the Redeemer and continued up to the day after the Epiphany; the Carnival holidays were from "the last Sunday of Carnival until after Ash Wednesday", the Easter holidays covered the period from the last Palm Sunday "until the day after the last octave of the Easter Resurrection". The birthdays of Their Majesties were also national holidays.

Obviously, time was distributed among the subjects that were studied in the primary schools. In the first hour, the pupils from the 1st, 2nd and 3rd classes of Portuguese Language, divided into tutorials, made up of 4 pupils in each and supervised by a tutor from the more advanced classes (4th, 5th and 6th), read the day's lesson. While the assistant schoolmaster supervised the teaching of Reading, the schoolmaster busied himself with the "writing and sums" exam for the pupils in the final three Reading classes, also giving the lessons that were left of the tutorial distribution of the first 3 years. In the 2nd hour, the pupils from the first three Reading years went to the "accounting" lessons, the pupils from the 4th and 5th Reading classes, who had been tutors during the first hour, read for half an hour; those from the 6th Reading class, who had also been tutors during the first hour, took their Etymology and Syntax lessons. Reading was supervised by the schoolmaster while the assistant took "accounting". In the 3rd hour of the morning and in the afternoon, during the months from April to September, the pupils from the first three Reading classes moved on to the General Numeric Principles; the pupils from the last three Reading classes spent their time on "Writing" for half an hour and then Arithmetic Calculation. The schoolmaster took the Calculation classes while the assistant took numeration. From October to March, the pupils in the last three "Writing" years only had Arithmetic lessons in the afternoon, during which they presented the schoolmaster with the problems solved at home, explaining "the reasons for the different operations employed in their resolution". As may be observed, we have a fully functioning class that is organised according to a mutual teaching technique.

At the end of the 18th century, the mutual teaching method became very popular and was established in a number of European countries. Strictly linked to social, political and economic conventions, it represented the first attempt to establish mass primary education through the fragmentation model of training courses. According to the definition of Joseph Hamel, mutual teaching consisted of the “reciprocity of teaching among pupils, the most apt acting as teacher to the less apt”. Bell, probably its inventor, considered it to be a “method by which an entire school could construct itself, under the supervision of a single schoolmaster” (Azevedo, 1972, p. 372; Léon, 1983, p. 80). In other words, instead of giving a collective lesson, which was common, he simply oriented the year. His assistant was aided by co-helpers, called instructors, monitors or tutors, selected from the best pupils and prepared for this purpose. A huge room was required that would hold up to a thousand children and even charts were published in order to calculate the size of schools in relation to a particular number of students (Marreca, 1835, pp. 44-45).

Mutual teaching was not, in the opinion of contemporary authors, an innovative method, having evolved from the Greek-Latin history of education, namely the teachings of Quintilian, since, according to him “children learn more speedily and willingly with their peers than with the schoolmasters; Erasmus, who believed that children should learn through play; and Rollin who praised the movement as if it were an important part of the period’s vivacity and liveliness. Seabra recalled that in Portugal, the schoolmasters of his time would divide the pupils into various sections according to their abilities and each one of them was promoted to a more distinguished position as they progressed. The greatest glory was being the director and the first in the school (Seabra, 1835, p. 43). The tutor process in the pedagogy of the Jesuits also resembled this teaching method, which gave rise to the Director of the Military Schools saying that in spite of its popularity, this method was not a new one. It was used to create the “Foundations of the New Methods” in order to teach and learn reading, writing and counting in those schools (AHM, Box. 12, Proc. 40). The basic principles of the method, the curricular content and also the norms regarding

school organisation and administration were regulated in the “*Instruções para os Professores das Escolas de Primeiras Letras dos Corpos de Linha do Exército*”, an important document in the teaching profession which was often requested by technicians and teaching analysts of the time. It was, perhaps, the first document to establish detailed norms for the orientation of schoolmasters at this teaching level since it addressed issues such as: education of the school, length of lesson, time of lesson entry and departure, distribution of lesson time, lesson compendiums, relationship between teachers and the corps commanders, pupil progress scales, school economy, religious exercises, civil exercises, pupil punishment, schoolmaster duties towards pupils, pupil duties towards schoolmaster and, in addition, norms for the keeping of enrolments and teacher registers (*Instruções para os Professores das Escolas de Primeiras Letras dos Corpos de Linha do Exército*, 1816). Nevertheless, despite these instructions having been printed and distributed to teachers, some of these schoolmasters “did not proceed in their direction with the regularity established in the Normal School”. This led the Director to write the “Presentation of the New Mutual Teaching Method”, “tested and approved” in the above mentioned school (AHM, Box.13, Proc. 61). It was a summarised document with 28 items, the first 19 of which were specifically dedicated to an explanation of the stages of the method. The others dealt with ways of regulating punishment and prizes, used to promote the worthiness of pupils, exam periods, progress charts and progression of pupils from the schools, usually made available to the public, the schools’ correspondence with their Managing Director, provision and salary of the teachers and helpers and, finally, the settling of the budget regarding the running of all schools.

This document gave a detailed explanation of the mutual teaching method and did not always coincide with the afore-mentioned “Instructions ...”, mainly in terms of class numbers, orders or sections in each subject. In other aspects they complemented each other.

The teachers probably did not practise the method exactly as they had learnt it in the Normal School, making several adaptations of it, which did not please the Director of these schools in the

slightest. In order to put an end to such breaches and to prevent the schoolmasters from alleging ignorance on the subject, he requested the print of 500 copies from the king who, for economic reasons only authorised 52 copies for each of the 52 schools that were functioning at the time (AHM, Box. 13, Proc.62).

The mutual teaching technique revolved around the principal of classification, adaptation, authority, activity and motivation.

The pupils were classified in sections, within which it was possible to have several groups, which enabled them to integrate in more homogeneous levels, adjusted to their abilities. Nevertheless, this classification did not always give as good results as would have been desired, since it was not the schoolmaster who taught his pupils directly, but, rather, the tutors or instructors. With the job of transmitting the corresponding knowledge to the pupils of a particular section, they were the system's corner stone. This organisation made it possible for all the sections to be taught in unison, unlike simultaneous teaching, by which the schoolmaster had to give lessons to successive groups of children. In this case the schoolmaster had two types of activities: on the one hand he had to teach the different subjects to the pupils who had monitoring duties, coaching them on the mechanics of the system and, on the other hand, they had to programme the activities to be performed in detail as well as to direct and supervise all class developments. We must remember that in the Portuguese version, the schoolmaster counted on the help of an assistant, as we have already mentioned.

From an educational perspective, the mutual teaching method was the most productive, since only one schoolmaster, with his team of monitors, could teach a large number of children. As far as discipline was concerned, it was equally efficient. Since they were always occupied, the children became less vulnerable to disorder and were accustomed to acknowledging subordination, hierarchy and the law. Motivation was accomplished through actual activity and also through prizes and punishments. The main elements of motivation were interest, prizes, public rewards and pride.

Even though the pupils from the *Escolas de Primeiras Letras dos Corpos de Linha do Exército* were

instructed in the Christian Doctrine by the Chaplain of the respective corps, according to the orders of His Majesty, whenever the lesson began, the teacher was to kneel and pray the Our Father, and Hail Mary with his helper and pupils. On Saturday, when it was not a Holy Day, the Litany to Our Lady was said.

In similarity with the civil schools, the teaching of Reading was strongly associated with the Christian Doctrine. During its practise the book, printed for use in the Military Primary Schools and entitled "Christian Doctrine", was used "since it was interesting reading material for the pupils, owing to the knowledge it made available to them". The task of educating the knowledgeable man, good Christian and useful citizen was done through religion.

The entry of pupils into these schools was immediately followed by a diagnosis of their educational skills in Reading, Accounting, Arithmetic, Religious Instruction, Etymology, Syntax, Spelling and Punctuation of the Portuguese Language. The result of this exam, as well as the name of the schoolmaster with whom they had learnt what they knew, was registered in the Enrolment Book (Model A), where the pupils' enrolment number was recorded, first name and surname, their rank (when they were soldiers), age, day of entry in the school, educational level on entry in the school and motive for departure, which could be of several types: ready, dead, did not wish to continue, dismissed, passed, abandoned. It even served to register the number of lessons "had in order to learn what he had passed". This book was under the guard of the Corps Commander. In another book (Model B) pupil progress in relation to the various subjects was registered.

The exam, which was taken on arrival at the school, by no means implied a fail. It served merely to judge the progress of the pupils and the kindness "of both the New Method and the Schoolmasters". After the diagnostic test, the pupils were divided into classes, according to subject.

As regards Portuguese Language, the pupils who were beginning with the alphabet went to Class 1; Class 2 was for those doing the syllabary; those who were moving on to vocabulary, in other words, were beginning to join the syllables and could read the words of each lesson went to Class 3; Class 4 was for those who were reading phrases and sentences through the spelling of pronunciation; Class

5 for those reading phrases and sentences through ordinary spelling; Class 6 was for those who read fluently in Christian Life; Those who read fluently in Roman Catechism went to Class 7; Those beginning their study of Etymology went to Class 8; The study of Syntax was for Class 9; Class 10 was for those who were competent enough to enter Spelling and Punctuation.

During the initial learning period of reading, the “New Method” was used, that is to say, the phonic method or new spelling, according to which the act of reading was based mainly on making the letters known by the name of their pronunciation in the syllables that formed them. This method, that was highly recommended by Pascal and used and perfected by the recluses of Port Royal, was an alternative to the former spelling method in the Royal Schools, and was to avoid a lack of correspondence between the name and value of the letters. In fact, the letters went on to be called only by their approximate phonetic value, or, rather, by their approximate sound, which was obtained for the vowels by pronouncing them with the actual sound of their position and, for the consonants, by adding a silent “e” to their articulation: a, be ce, de ... However, the course for the teaching of reading was the same: alphabet, spelling – reading syllables, spelling ~reading of words, spelling – reading of sentences. The lack of an orthographic reform entangled, in these schools, the learning of reading and writing. The pupil’s contact with a spelling of pronunciation followed by ordinary spelling, must have caused confusions, which were difficult to override, both in reading and writing (Fernandes, 1994, pp. 384-385).

As far as “writing” was concerned, the pupils wrote successively on sand, spread over trays or on tables with a kind of frame to stop the sand falling onto the floor; later on slate; and finally, they began to write on paper. It is worth mentioning the pedagogical novelty of writing on sand. As well as functioning as a kind of introduction to this teaching method, it was an excellent way for the learner to acquire freedom and flexibility of movement.

Progression from the teaching of “writing” affected ten classes. Pupils who could draw some of the capital letters (in sand) were in the 1st: those who were beginning to form small letters (in sand) were in the 2nd; in the 3rd were those who could form the

letters up to the 7th lesson; in the 4th were those who could form letters up to the 16th lesson; in the 5th they formed alphabets in small letters; in the 6th, figures; in the 7th, capital alphabets; in the 8th, fluent writing from image; in the 9th, fluent writing by book; and in the 10th, fluent writing by dictation (on stone or paper). Fluent writing was initiated in block letters and followed by cursive writing. As far as the method is concerned, there were no real changes in relation to the royal schools where, as we have already established, the synthetic method was used. The letter served as a basis without any meaning for the word and sentence. Given that writing is a complex act and more difficult to acquire than reading, little or no attention was given to the prescribed ones. Art, as in the royal schools, was not yet given the attention it was to receive later on.

In Arithmetic, the classes, which did not always coincide with the consulted documents were, in the “General Scales of Progress of the Military Primary Schools” the following: General Principles, Composition and Decomposition of Whole Numbers, Composition and Decomposition of Fractions, Composition and Decomposition of Complex Numbers, Ratios, Proportions and Rule of Three which, overall, were the same as the Director had established with regards to education.

In Religious Instruction there were only two classes: oral study and reading study. The teachers were also advised to be particularly careful when instructing the pupils to serve in mass, “it being the responsibility of the schoolmaster to accompany them during their initial practise of this instruction” (*Instruções para os Professores...*, 1816; Melo, 1822; AHM, Box.13, Proc. 61).

The lesson compendiums used in the regimental schools were, as already mentioned, the same as the ones used in the *Escola Geral de Belém* [General School of Belem], where the schoolmasters and assistants were trained, and written by the Director.

In regimental schools, in addition to the new practice of giving a diagnostic test, there was also continuous assessment of the pupils’ progress. Each pupil was evaluated on a weekly basis, not only by the schoolmaster and his assistant, but also by the tutors. In Portuguese Language the tutors received the “printed scales” on the first day of each week, which was the responsibility of the assistant to col-

lect at the end of each lesson. The tutors registered the progress of each of his novices on these scales, attributing a B for those who had done well (bem) in the lesson, an M for those who had done badly (mal) and an S for those who had had a reasonable (sofrível) classification. For the student who missed classes, he would attribute an F (falta), to signify absence. In order to avoid unfair comments, the tutors were not always the same. The teacher varied their nominations for the different tutorships. In order to rationalize the learning time, as soon as all the pupils from one tutorship had mastered the lesson, they immediately moved on to the next one. At the end of the week, the assistant handed the tutor's progress scales (Model C) to the teacher in order to reorganise the tutors for the following week.

We are of the opinion that progression to Writing and Arithmetic classes was conducted in a similar way, even though there is no clear reference to this in the *Instruções para os Professores...*

Another book (Model D), considered a register for the teacher's control, since it enabled "better acquaintance with the pupils", contained a column where the enrolment number was recorded, the same as in the afore-mentioned Book A and, in the rest of the columns, the number of lessons each pupil had "had in order to learn that which he had passed" was mentioned, clarifying that one lesson corresponded to two sessions per day, the morning and afternoon ones. Curiously, in this book, as well as the respective place for the register of lessons in Reading, Writing, Arithmetic and Grammar, there is also a place at the end reserved for Military Writing and Accounting, which was certainly no more than an intention in the curriculum of these schools.

A summary of the several weeks in each month was registered in a general scale (Model E). This scale translated the overall success rates of each school and was sent to the Corps Commander who, in turn, sent it on to the Director of the Military Schools. The same scale was also forwarded to the Minister and Secretary of State of War Affairs. At the beginning of each year all the schools similarly sent a progress and movement chart for the previous year (Model F) to the Director from which the latter would collect the information he was obliged to disclose in a public session, presided by the Minister and Secretary of State and, on occasions, by the king.

There were two exam periods: one at the beginning of June and the other at the beginning of December. The pupils who wished to do the exams were publicly examined over 3 days in the different subjects. At the end, the schoolmaster had to send a nominal report to the Director of the schools based on the examined pupils, stating the results, the subjects studied and the amount of study time the pupils had "so that the Director could become acquainted not only with the progress of the School but also of the approved talents" (*Instruções para os Professores...*, 1816).

This way of structuring, organising and revealing the teaching results was inherent to the method and a way of testing its wonders. In this process, the distinguished pupil gained the position of master of his peers, which corresponded to honour, merit and distinction.

Indeed, pride was a learning weapon in the military schools. There were frequently public distinctions of personal merit to stimulate the pupils. On the last day of classes of each month the schoolmaster would have the progress reports of the pupils in the other subjects read aloud, fixing them, afterwards, to the outside of the classroom door, "to make each pupil's progress or lack of it visible to all. The nomination of tutors was, in itself, a kind of recompense that the schoolmaster gave to his pupils and, among the prefects, those who came immediately after the tutors and, among whom "those who sat closest to the schoolmaster" "were considered the most worthy". The pupils who deserved first place in the Book reports – Model B, were distinguished with a place next to the schoolmaster, on a bench with clear, white letters written in front of him, reading: "MERIT".

Punishment, in the military schools, was identified as "prize deprivation". Since the cane was considered "a terrible invention, deriving from ignorance, the cause of doomed misfortunes, one of which is allowing a pupil the freedom to make as many unpunished mistakes as the pardons granted" (In *Instruções para os Professores...*, 1816), each school resorted to all kinds of means to ensure the progress of its pupils.

Therefore, in the school Infantry 18, in Porto, it was established that at the end of each semester, those who had passed the exams of every subject

would be awarded a prize. The soldiers would be given access to the Official Inferior scale while the civilian pupils (non military) would receive a silver or bronze metal, both with the El-Rei effigy. The distribution of these prizes took place in a ceremony with Corps Chief, Bernardo Correia de Castro e Sepúlveda. Whenever they ceased to apply themselves, they were stopped from wearing their medals in the classroom, which was considered a type of punishment (AHM, Box. 12, Proc. 11).

Public praise stimulated both teachers and pupils to take pleasure in their work. Written work, a highly valued exercise, was an objective and stable product by which the worthiness of teachers and pupils could be evaluated. Public sessions, on occasions honoured by the presence of the Royal Family, were held to distinguish schools that had excelled in Writing, making particular reference to the pupils who had moved up to the class of benefactors and publicly examining pupils in Reading, Writing, Arithmetic and Religious Instruction. In 1820, 3 out of the 29 schools that gained entry in the 1st Order of accomplishment for excellent writing proficiency were from Trás-Os-Montes: 2 from Chaves (Cavalry Regiment 6 and 9) and 1 from Bragança (Cavalry Regiment 12). Among the military schools, the prize was not only for those who were gaining qualifications, but also those who showed proof of progress (AHM, Box. 13, Proc. 11 and Proc. 45). This type of evaluation, was, indeed, a source of motivation for school learning.

In this educational context, we may observe that in the military schools, the pupil took pleasure in his own, personal learning process. Pupils were stimulated by pride, the strongest ally, and the repressive methods were abolished and condemned. In order to overcome tedium, apathy, confusion and disorder, the principle of activity was used, making the pupil the main instigator of his education.

It is also important to point out that, in these schools, the successive learning of subjects began to be replaced by simultaneous learning. The children first learned praying and reading and then writing, and later, counting. For many, many years it was the reading school, the reading and writing school and rarely the counting school. Arithmetic is a necessity in modern times and was a requirement of the Illuminist curricula. It may be noted in

the *Constituições do Bispado de Miranda* [Constitutions of the Miranda Diocese] (1563, p. 6) reference was made to the schoolmasters who taught Reading and Writing and those who taught Grammar. Arithmetic was not mentioned. However, in the prologue of *Nova Escola para aprender a ler, escrever & contar*, [New school for learning to read, write, and count] Manoel de Andrade Figueyredo (undated) recommended the teaching of Arithmetic, “not only because it is the responsibility of the school, but because many wish to devote themselves to this art and later on in life they will not wish to subject themselves to the schoolmasters as if they were children”. Pombal, in his reform of 1772, established by decree the official Primary learning programme as including Reading, Writing and Arithmetic, meaning the four kinds of operations, as well as Catechism and Civil Rules in a short Compendium (Machado, 1972, p. 111).

The law was omissive on the method for learning knowledge, however, the manuals were perfectly clear about the successive learning of the different subjects. They began with Reading, to which the study of Catechism was associated; This was to be followed by Writing, beginning with spelling rules “explaining to them and giving them discursive themes each week, through which they could observe how to write, telling them the History of their Country, essential to everybody and others worthy of acceptance, thus, learning how to punctuate and write according to spelling rules”; they would then go on to counting, which was preceded by the teaching of arithmetic figures” and, “while they are learning how to add and subtract, they learn the tables, definition of weights and measurements, coin distinction, roman sum(...), teaching them, simultaneously, the general rules of Arithmetic”. Writing was to be taught after the children had acquired not only dexterity of movement, but also the ability to read freely both round and block letters. This was the only way they had of knowing what they were writing. “A child who draws the characters without first learning them through reading, does not understand what he is writing (Por Hum Professor, 1816; Barbosa, 1796, p. 2).

Despite the profoundly enlightening pedagogical innovations, this methodology continued throughout Liberalism. The teachers continued to

practice a traditionalist technique, which was barely contested by the national reformers.

The reform of 1836 incited the teacher to use the mutual or simultaneous method, according to his number of pupils, but it gave no information regarding the type of learning for the various subjects. In the decree-law of September 20th 1844, this aspect was ignored and the establishment of regulations postponed. Indeed, the Regulation of September 20th clarified this point, providing norms for the teaching of the different subjects. The teaching of Reading would begin with the reading of print, later going on to the reading of handwriting. The teaching of Writing would take place simultaneously. However, it was only when the children had sufficiently mastered the reading and writing tasks would the teacher show them how to write figures, making them learn the numeration techniques. He would immediately go on to teaching them and giving them practice in the common operations of adding, subtracting, multiplying and dividing, first with whole numbers, then with fractions, leading them to the rule of 3 and its application to the rule of interest and company. As they made progress, the teacher would ask them to read through the approved elementary books or those that came to be

approved by the Superior Council of Public Education, “beginning with those containing the notions of Christian Doctrine, Morality and Civility, moving on to others on Chorography, History or Portuguese Literature”. *Given the number of pupils and different levels of the pupils, the teacher should distribute them into classes by which the amount of lesson time should be divided so as to satisfy all the receivers of education, without jeopardising any, because of one (Synopsis..., 1848, pp. 356-357).*

Halfway through the 19th century, the simultaneous learning of Reading and Writing was established. However, this methodology was already being followed in the regimental schools of Trás-Os-Montes, since they were practising not only the simultaneous learning of these two subjects, but also, trying the simultaneous learning of Arithmetic.

In the province of Trás-Os-Montes, the percentages of pupils in the military schools who frequented Reading, Writing and Arithmetic classes indicated a progressive tendency towards the simultaneous learning of the different primary school subjects, which may be verified in the following table III, based on documents from AHM (Box. 12, Proc. 13 and Proc. 42; Box. 13, Proc 1, Proc. 40 and Proc. 45).

TABLE 3. PERCENTAGE OF PUPILS WHO ATTENDED THE READING, WRITING AND ARITHMETIC CLASSES IN THE PROVINCE OF TRÁS-OS-MONTES

	11/1817	11/1818	10/1819	01/1820	08/1821	01/1822
READING						
Alphabet	26.4	9.6	12.9	17.2	28.6	29.6
Syllabary	28.1	13.5	15.2	20.7	34.1	28.5
Vocabulary	12.4	18.3	16.7	15.3	10.3	13.4
Frases e Sentences	29.2	41.9	8.1	11.3	14.3	10.6
Grammar	0.6	14	42.9	33	11.9	14.5
Spelling	1.7	1.7	4.3	2.5	0.8	-
Reading in Christian Life	-	7.0	14.3	14.3	7.1	10.1
Reading in Christian Doct.	-	11.8	16.2	20.2	11.9	13.4
TOTAL	98.4	117.8	130.6	134.5	119	120.1
WRITING						
On sand	25.3	13.5	18.6	24.6	26.2	23.5
On stone	37.1	17.5	13.8	14.8	23	33
On paper	36.5	69	67.6	64	50.8	43.6
TOTAL	98.9	100	100	103.4	100	100.1
ARITHMETIC						
General Principles	29.2	12.7	36.7	59.6	63.5	62
Whole numbers	22.5	37.1	46.2	32.5	33.3	35.8
Fractions	22.5	37.1	46.2	32.5	1.6	2.2
Complex numbers	0.6	3.9	3.3	3	0.8	-
R. P. and Rule of 3	1.1	1.3	1	1	0.8	-
TOTAL	56.2	62.9	92	100	100	100

In November 1817, the percentage of pupils attending Reading and Writing was close to 100%, whereas in Arithmetic there was only 56.2%. Attention should be drawn to the fact that these schools only opened their doors to the public in August 1817. In November 1818 and October 1819, we may observe that Reading and Writing were taught simultaneously, but Arithmetic was only practised respectively by 62.9% and 92% of

the pupils. In the last three dates marked out in the table, they all practised Reading, Writing and Calculation. The percentages in Reading and Writing above 100% represent pupils who simultaneously attended more than one class in these subjects.

Let us observe what was happening on a national level in the following table, based on the same sources as the previous one.

TABLE 4. PERCENTAGE OF PUPILS WHO ATTENDED READING, WRITING AND ARITHMETIC CLASSES IN PORTUGAL

	11/1817	11/1818	10/1819	01/1820	08/1821	01/1822
READING						
Alphabet	13.7	10.5	13.8	14.1	18.2	18.3
Syllabary	19.4	16.6	17.5	17.7	19.1	18.6
Vocabulary	20.6	17.5	14.2	14.1	13.3	13.7
Frases e Sentences	34.9	30.5	23.2	24.4	23.9	25.9
Grammar	4.1	16.9	19.2	20.7	19.1	18.6
Spelling	5.0	5.5	8.0	7.1	5.9	6.1
Reading in Christian Life	-	20.4	20.1	19.6	16.3	16.9
Reading in Christian Doct.	-	21.4	21.2	21.2	19.0	18.9
TOTAL	97.7	139.3	137.2	138.9	134.8	137
WRITING						
On sand	13.9	13.7	17.3	16.7	19.0	16.8
On stone	18.2	18.2	25.8	16.2	13.5	16.0
On paper	51.4	61.4	64.9	66.8	65.9	66.1
TOTAL	83.5	93.3	108	99.7	98.4	98.9
ARITHMETIC						
General Principles	30.9	28.9	37.7	41.9	46.4	45.9
Whole numbers	29.6	31.0	32.8	32.3	33.0	32.5
Fractions	7.8	8.9	6.8	5.5	4.5	5.9
Complex numbers	1.7	3.0	2.3	1.8	1.6	2.4
R. P. and Rule of 3	1.0	3.1	44.0	4.0	3.6	3.8
TOTAL	71.0	74.9	84.0	85.5	89.1	90.5

A growing tendency may also be observed towards the simultaneous learning of knowledge without, however, fully reaching 100% in all subjects, at any given moment.

November 1817 presented low percentages in all subjects, even though these schools had already begun to function in January of the same year. In the other months marked out in the table, everyone learned Reading and almost everyone Writing, presenting a percentage of 108% in October 1819, to which we attribute the fact that some pupils practised more than one form of learning Writing. In the learning of

Arithmetic, despite there being no evidence of them all learning this subject simultaneously with the others, a progressive increase of this tendency may be noted, where a satisfactory percentage of 90,5% was achieved in January 1822 (90,5%).

Without an element of doubt, we are certain that they all learned Catechism. We have no information for Trás- Os- Montes, but the scarce amount of data collected on a national scale proves that every pupil from the military schools was obliged to have Religious Instruction as Table V leads us to conclude (AHM, Box. 13, Proc. 11, Proc. 45).

TABLE 5. PERCENTAGE OF PUPILS
ATTENDING INSTRUCTION CLASSES

	IN ORAL STUDY	IN READ STUDY	TOTAL
31/08/1818	80.8	19.2	100
01/01/1821	56	44	100

Although education, in principle, was the responsibility of the Corps Chaplain, the Royal Notification of December 29th 1818 recommended its introduction in regimental schools to “provide the domestic education of the extremely important Christian Doctrine there may have been a lack of”. Reading practice was accomplished through Catechism and books on Christian life. It was, therefore, through the Catholic Religion and its morality that the pupil was educated, adding to this experience the “most powerful lesson”, namely the schoolmaster’s example, which always had the most influential impact on the pupils’ future morality (Royal Notification 29th December 1818; AHM, Box. 13, Proc. 11; Box 12, Proc. 41). Above all, it served as a prop for the regime and hindered the entry of new ideologies that were conquering many other European populations.

There was, then, a greater tendency towards the simultaneous learning of the various primary school subjects in Trás-Os-Montes than in the country as a whole. A “uniformly and cohesively directed educational system” as expressed, laconically, by the Director of these schools, João Crisóstomo do Couto e Melo, a profound connoisseur of the modern pedagogical ideals that stemmed from the French Revolution, was foreseen. There were innovative educational theories and practices deriving from the Copernican Educational Revolution that passed through the entire 18th century. With Rousseau the child became the centre of all pedagogical considerations and the idea that it was the duty of the school to prepare the learner for life became a general belief. Subsequently, the active method largely defended by Kant, was predicted at this time. In his “*Traité de pédagogie*” he wrote: “the best way of understanding is by doing”. Pestalozzi followed Kant and based education on the attentive and friendly psychology towards children. Dedicated to educating children from the poorer

classes, beggars or orphans, he wished to make elementary education universal. According to him, sensorial observation and perception are the basis for knowledge. Education, therefore, should be initiated with the immediate experience of the child and the study of the environment in order to establish a connection with language. Experience, solid facts, and spontaneous activity, in connection with tasks requiring expression or calculation, give the child the ability to develop his knowledge in the broadest possible manner (Gal, 1985, pp. 88, 90).

The pedagogical disadvantages of learning the various primary school subjects successively, which meant that children had to study the same subject over a long period of time, were mainly fatigue, boredom and a certain under usage of some physical and intellectual faculties, thus, hindering a balanced development of their abilities and skills. It also hindered the ability to benefit sufficiently from time spent in class, making the educational space propitious to disorder, when several groups of children were simultaneously working on different subject matters.

The aim of these schools was to educate as many pupils as possible in as little time as possible. For this reason, new methods were tested and new ways of teaching and learning were practised.

CONCLUSION

The material conditions of the royal schools throughout the period under analysis were dreadful and the central government made absolutely no attempt to resolve the problem. The regional authorities and the populations were acquainted with the serious physical conditions of the schools but were in no financial position to resolve the difficulties that affected the majority of places in which the educational act was being hosted.

Generally, the primary schools were set up in the schoolmaster’s house and did not fulfil the minimum requirements regarding school health and hygiene. Their equipment, with little or no school or didactic material, made the space unsuitable for the purpose it was intended for. First of all, responsibilities may be attributed to the absence of a legislative policy on school buildings and

equipment. Secondly, the modest wage of the primary schoolmaster could not cover the cost of the school's expenditure, premises and maintenance. Furthermore, the poor housing conditions of the period should also be taken into account. There were no houses for rent and when there were, they were no better than "barns". The Latin Grammar, Rhetoric, Greek Language and Philosophy classes were no better off.

There was an even more importunate problem in the regimental schools of mutual education, which consisted of the opening of a school being dependent on an appropriate location. Aspects like, dress, tidiness, cleanliness, space and airing were a cause of concern for those deciding on a suitable place for the school. Its equipment, inherent to the mutual education method practised in these schools, was the object of a lengthy controversy between their Director, João Crisóstomo do Couto e Melo and the central government. As we have already gathered, everything revolved around the exiguous budget allocated to these schools, which could not cover the costs of school and didactic material. Nevertheless, they must have been very different to the royal schools that were totally lacking in everything. As the regimental schools were more welcoming and offered better prepared teachers, they were the focus of attention for the children of the inhabitants living in the places where they were established.

The objectives, contents and methods are consistent with the classic school model, even though the period coincided with the appearance of the innovative active school theorists, among whom Galileo, Comenius, Locke, Pestalozzi and Rousseau stand out. Even today, they are all recognised for their methodological contributions to recreating teaching and learning. On the subject of this discrepancy between theory and practice, one may recall the problems Galileo had with the Church and the Inquisition, which had a strong social influence at the time.

The aim was to make citizens useful to themselves and to society, through morality and the Christian religion. The child, seen in the image and similarity of an adult, had to learn the norms and the ethical-religious values in order to know how to lead a society that was strongly elitist, authoritarian and hierarchical. Terrestrial hierarchy, like

the celestial, positioned the Absolute Sovereign at the top of the social pyramid, with power coming from God. Therefore, obedience and dependence of parents and superiors, civilians and ecclesiastics was a constant eulogy.

The school, which was reluctant to accept innovation and change, was structured on permanence and timelessness. The programmes, favouring the Humanities, totally neglected the Sciences and Arts. Educational plans, such as the one by Francisco de Borja Gastão Stockler, dated 1799, did not thrive. Without forgetting the Humanities, the latter gave priority to the Sciences and Arts and was hugely concerned with establishing a relationship between the school and society, given that he believed knowledge could not be acquired by content alone, but through its social utility (Carvalho, 1986, pp.508-512). The programmes, clearly nationalistic, had completely ignored the regional side of the question. Municipal education was still the leader in the teaching of technicians, in a society that had so celebrated Happiness and Progress. The school did not sufficiently meet the demands of a work market, essentially run by the commercial bourgeoisie, or the needs of an increasingly more bureaucratic State. For this reason, many people considered instruction to be perfectly useless. The poorly attended schools were for a minority.

The learning of elementary knowledge was based on lengthy, boring methods, which did not respect the psychology of the child. It took a huge amount of time to learn how to read and write. Basic Arithmetic was often neglected by the teachers who did not have sufficient knowledge on the subject to exercise the profession of teaching it. When it was taught, only the four operations and their application in daily life were covered.

The learning of the Latin Language, Rhetoric, the Greek Language and Philosophy, with priority given to the Humanistic content, was mainly expressed in the lesson or in the teacher's explanation. The latter was characterised by the emphasis given to logical and quantitative aspects of the programme and its course of development was predominantly deductive, based on the general ideals, principles and definitions in order to arrive at applications or concrete examples. The role of the pupil in the learning process underwent two phases:

1 — Individual study, during which the pupil reads, structures, summarises, memorises and performs the proposed tasks;

2 — Recital, to demonstrate his accumulated knowledge, usually based on memory and poorly internalised..

The regimental schools represented a pedagogical experience, which was conceived according to the methodological rules recommended by the thinkers of education. To begin with, the mutual education method was used with particular characteristics in the teaching of reading, writing and calculation, commonly called the mutual education method. As far as we are concerned, it is an adaptation of Couto e Melo, who tested it at the *Escola Normal de Ensino Mútuo* [Normal School of Mutual Education] in Belem, an aspect which, in our opinion, should be looked upon as a premature experimental pedagogy attempt (Baptista, 1998).

Pedagogically, relevant aspects are presented. The use of monitors, the heart of mutual education, made the system extremely productive and enabled a schoolmaster and his team to teach large numbers of pupils. The creation of classes within each subject was an attempt to adapt education to the child, allowing him to move forward according to his potential. Use of the new spelling method for an introduction to reading and the use of various didactic particularities made education more attractive, active and interesting in these schools. The progressive substitution of successive learning by simultaneous learning gave rise to the transference of the development of competences, dexterity and abilities from some areas of knowledge to others and reduced the amount of time spent in school. The periodic evaluation of pupils, a type of assessment, was used as the progress engine, not only for the system, but also for the pupil. The abolition of the cane and the constant use of stimulation, the sense of pride and example of the schoolmaster were, in themselves, highly pedagogical aspects which condemned the kind of education that had been practised and which went on to last for many years in primary school.

Education in royal schools was more old-fashioned and conservative. It was not the complexity of knowledge that gave full rein to the formation of classes, but what the pupils managed to learn in or-

der to be inserted in Classes 1, 2 or 3. Indeed, a very long time was spent at school learning basic skills, which is an indication of how the methods were unsuitably adapted to the child, with poor application and high pupil absence, almost always due to “over occupation or illness”. Memoristic learning, which was totally decontextualised from daily life, drove children away from school.

In short, we have to admit that the military schools were the country’s pilot schools. It is difficult to evaluate the extent to which this experience spread over into public schools, thus, contributing to a renewal of all the previous pedagogy. Although they were not pedagogic ghettos, we believe that their influence, in the regions where they were established, was highly restricted.

First of all, the fact that it was an experience that had nothing to do with the *Directoria Geral dos Estudos* [General Directorate of Studies], which managed and ran the *Estudos Menores* in Portugal (primary and secondary education), should be taken into account. This body, through pure conservatism or through a lack of superior power coming from the Court, did not promote a similar experience in the royal schools. Secondly, the short life span of these schools needs also to be considered. The period of 7 years was not enough for the experience to establish roots and spill over the walls of the regimental schools, functioning most of the time in the barracks. Directed by specialised teaching staff, they must have brought about a division among the Portuguese teaching staff, creating two completely adverse parts. On one side were the military schoolteachers, suitably prepared for the teaching activity and earning good wages.; on the other side were the royal schoolteachers, without the slightest possibility of accessing this type of education and with extremely low wages.

This imbalance, a national reality, must have become particularly serious on a local level when the royal schools lost their clientele to military schools, such as Bragança and Chaves. The school of Cavalry 12, in Bragança, continued in full activity even after the extinction of these schools by the Government.

Frequented by the local elite, these school centres were poles of attraction and served to conquer the trust of the local populations in the army who

had been tormented by an almost permanent state of alert during the French invasions.

Nevertheless, the mutual education method hardly penetrated schools in Trás -Os-Montes or, indeed, Portuguese schools in general. Even after the foundation of the *Escolas Normais de Ensino Mútuo*, the teachers, from all the district's capitals (1836), did not adhere to this method enthusiastically. It was practised in these schools and, in a very small percentage in other schools, in spite of the fact that the teachers received an annual gratification of 30\$000 réis when they put it in practice. As far as we are concerned, the reason for this was due to the reduced number of pupils that were enrolled in each school. We must not forget that it was and continues to be a region, where the agglomeration of populations had very few houses, where each school centre brought together the population from the surrounding vil-

lages, yet still managed to achieve totals that encouraged more the practice of the simultaneous method than the mutual one. According to the inspection surveys of 1875, the method of pure mutual education was not practiced by any teacher. It was used by 60% of primary school teachers, diluted in the mixed method (mutual/simultaneous and mutual/individual) (Nóvoa, 1987, p. 402).

The inclusion of children under the age of 7 in these schools represents the need of the time for infant schools. This was still a very distant reality in our country.

To conclude, the creation of these schools represented the need to broaden education to as many people as possible and to re-think the teaching methods and teacher training. The teacher, as an important personal element within the system, will be the object of a detailed study in the next chapter.

ENDNOTES

1. This article is a chapter adapted from the work of M. Isabel Baptista (1999).

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