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Evolution of the scientific and technical Curriculum in the Secondary School during the era of Alfonso XIII(1902-1931)

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1. Introduction: object and methodology

The basic objective of this seminar paper is, as it is - tell in the title, to delimit the characteristics of the - scientific and technical curriculum of the second teaching or training in Spain, during the time of Alfonso XIII. Therefore, topics so importants as the relation between society and teaching, evolution of the educative projects of the second teaching, more representative teachers, the problems of the second teaching in the spanish press,etc., stay out of our inmediate objective.

The center of our analysis is going to be, said in other way, to pointout the different tendencies that the evolution of the scientific and technical curriculum in the spanish -- legislation of second teaching in the first third part of -- the XX period,present(1). Although, there are other basic - topics in this legislation which are going to be necessary - to explain. Between them we have:

a. Inadecuation between the teaching system and the social and economical demands.
b. Identity of the secondary level: the long process of the dependence of the autonomy.
c. Structure of the second teaching: the ciclical alternancy.
d. The liberty of teaching
e. The sistem of evaluation (2)

But, because of the limitations of time in a communication of this type, we are going to develop just some of the topics. Specifically the epigraphs "identity at the secondary level" and "structure of the second teaching",before we - begin with the evolution of the scientific and technical curriculum.

2. General, historical and determinative aspects of the time of Alfonso XIII

We are going to begin by analysing the general situation

of Spain during the first third part of XX period, with special attention in the situation of culture and the teaching in the secondary level.

The historical period known as "The time of Alfonso XIII" extends between the end of the Restauration's time(1875-1902) and the begining of the Second Republic; so, we may say, from the begining of the reign of Alfonso XIII, 1902, until, the april of 1931 when with the proclamation of the Republic the royal abdication was produced(3).

2.1 Social crisis and uninterrupted growing

The uninterruption of the growing appears in the demographic order and in the industrial and agrary production, although this last aspect is going to be more evident with the influence of the external conjuncture.

Spain kept the neutrality most severe during the european war of 1914-1918, this aloud industrials, landowners and financiers obtain great fortunes, while a big ascend of the livelihood was produced, basically because of the great sells made to the countries that were in the conflict, but the salaries stayed exactly the same, so this was a very difficult situation for the middle class and the workers of the country.

The problem of the ascend of the prices of the products of first necessity, joint to the demographic growing, to the model of rural property and its structure, the limited industrial development, the resource each time more frecuent, of the violence from the forces of the opposition, determined a great and each time growing social crisis.

2.2 Political crisis

The canovist constitution of 1786, wich was effective during the period that we are studying, reveales each time more the discordance between the social reality and the political transformations wich were taking place: political catalanism,

workers movement, reformation of the middle class. - - - - -

During the time of Alfonso XIII we may distinguish three periods. Between 1902 and 1917 the process of crisis of the parlamentary monarchy is detected, with the progressive deterioratin of both of the great political parties(the conservative and the liberal). When in 1917 the governant oligarchy succed in puting face to face the different social - forces, sindical and political, a great period of desorganization and crisis takes the country to the dictatorship of Primo de Rivera(1923-1930), and this takes to the definite deterioration, helped with the financial crisis . Finally, in the elections of april 12 of 1931 the electorate of the cities will manifestate in favour of a Republic, wich was - going to be proclaimed two days later.

2.3 Cultural, artistical and educative development

The first third part of the XX period in Spain was characterized for the artistical and intelectual highest point, and also with cultural beningins of the naturalism began in the XX century.

The writers of the 98 generation(Baroja, Azorín, Maeztu, Unamuno...); the men of the 1914 th generation and of the - Political Education League(Ortega y Gasset, Azaña, F. de los Ríos, Pablo de Azcárate,...); the great musitians as Albeniz and Falla; paintiers as Sert, Picasso or Zuloaga; historians, poets, men of science, teachers, etc., appear in the great - cultural elite. This great cultural movement finds its support and manifestation in the development of the press, in the abundance of translations and the multiplication of magazines, and also im the formative activities of the cultural circles.

It must be distinguished, that although the different type of crisis that characterize this period, this is the time -- that more help from the institutions that as the Junta de Ampliación de Estudios, which were impulsed by the Institución Libre de Enseñanza, or by men that were educated in it, that permited the formation in Spain and out side the country

of professional that if the civil war couldnot had interfered(1936-1939), it would had permited Spain to be in a much better place in the culture and in foreign education, during the last period of our history(4).

2.4 International policy

The position in international policy was given by the participation of Spain in the problem called of Marruecos, and the neutrality in the international conflicts and world conflicts and by a growing cultural community and the intensification of the commercial interchange with Latinamerica . The world war, with the pacifist opinion, although the division between the aliencists and the germanists, contributes to -- the progresive approach with Latinoamérica.

3. Identity of the secondary level: the long process of the dependence of the autonomy

In the historical context that we had see until now, it is also necessary to think in first place about the topic in relation to the identity of the level of the middle teaching, situated at the end of the elementary school until the begining of the universitary formation, that in Spain have different denominations such as: "segunda enseñanza",or second teaching; "bachillerato", or high school; "enseñanza media", or middle high school; "enseñanza secundaria", or secondary learning(5)

It may with facility to put a lot of words taken of the - legal text that sustent the dependence of the second teaching of the other levels, serving as complement to the elementary and as preparation to the superior, and as the same time reveal the general idea that this type of teaching just must - be at the service of high class people(6).

In the period that we are studying will be the own social economical reality wich with it's needs will put the identity of the secondary level. In this way, in the plan of stu-- dies of august 17th of 1901 the Technical and General Institutes are formed. Which had the second teaching and also the

teaching profession and agricukture, industry, commerce, and workers teaching. So, the secondary level will obtain plain autonomy since most of its part of teaching were different, coming from the ones given in the elementary shool as from the ones given in the universities(7).

In the studies plan of august 25th of 1926, the sustantivity of the high school is perfectly understand obtaining -- this clear idea of identity:

> "But the high school, that in a way is a complement of the elementary school in by the other forms the inteligence for superior studies, is not only a preparation for the studies of faculty but in many cases must have own content for those who are going to special schools... For many public employee; for many young ladies that go to the institutes; for most of the ones that not wanting to go in the universities would like to have a better -- culture then the one that in the elementary school got"(8)

4. Structure of the second teaching: the ciclical alternancy

The secondary school in Spain had been alternating historicaly in its structure, in a conception of only period and the one of two complementary cicles.

During the XIX century, the more generalized tendency was that the period of the secondary teaching, not free, not obligatory, must extend six years stablishing also as law the - existence of two periods: one, of elementary character and - of consolidation of elementary teaching; and a second period that some times needed a final examination, much more complicated and for prepararion for the superior studies(9).

The important studies plan of september of 1903, that was in force for 23 years, must put a high school that must be divided in elementary and superior in the studies plan of august of 1926(10).

5. Humanistic secondary teaching and scientific and productive teaching

In the begining of the secondary modern teaching live together two directions that, although might be understand as

complementary, are going to appear face to face in the reality. In front of a secondary teaching humanistic and theoric, conceived more as an social ornament, without any practical end, we must see other direction that put the enfasis in the scientific-natural aspects and in the professional-technical orientation.

Analizing the legal texts of teaching in XIX century in - Spain, we may get the conclusion that the political conservative groups defended sistematically the application of the - classic high school of medieval inspiration full of linguistic contents, specially of latin and spanish words. In other part, the high school modern with the put in of subjects as natural science, phisics, chemistry, mathematics, modern language in great cuantities,was always defended by the liberal tendencies that thought that those teachings will contribute to the modernization of the country(11).

The plan of september of 1898, of the minister Gamazo,was characterized by offering a lot of choices combining humanism and pragmatism, dead languages and the opposite, scientific and literary high school.(12) But the studies plan of Pidal y Mon, of may of 1899, finished with the pragmatism and the approach to the scientific knowledge of the first plan:

> "Disappear by the new reform the usual Right,the Economical Policy and the Contability, that if its idea was to give an enciclopaedical character to the second teaching, it does not seem to have the right place. Other subjects, as Theory and History of Art, the Phisiology and Higiene and at last the Agricultural and industrial Technic disappear in those which are the real cause or principle..." (13).

Anyway, in the plan of Pidal y Mon the teaching is extendend to Arithmetic, Algebra and Mathematics to six courses; Phisics and Chemistry were given in three years and the Natural History in four years.

In the introduction of one of most important studies plan of this period, plan of studies of august 17th of 1901, it - may be read a very important phrase that reveals the situation of the scientific and technic curriculum:

Third year

Geography and Spanish History
Natural History
Phisiology and Hygiene
Civil Rights and Law notions
French

The second cicle the secondary teaching was called in this plan Bachillerato Universitario, or Universitary Bachelor, divided in two sections, Leters and Science, they had three - courses each one, being one common year for both, before having or taking the option for one of them(17).

In the common course, with the Latin language and the History of the Spanish civilitation appears the subjects of notions of Algebra and Trigonometry, Economical and Political - Geography and Agriculture. In the section of science obviously the contens were of scientific work:

First year

Arithmetic and Algebra
Physics
Geology
English, German or Italian

Second year

Geometry and Trigonometry
Chemistry
Biology
English , German or Italian

The reform of august 7th of 1931, after the abdication of Alfonso XIII and with the Republic, adopts for the students of the year 1931-1932 the plan of studies of 1903, being minister op Public Instruction Marcelino Domingo(18).

6. Conclusion

In general terms we may say that Spain did not have during the time of Alfonso XIII the secondary teaching that the social economical development that the country had and needed, although the efforts of some parts of the teaching staff, Teaching institutions and the good help given by the administration that was shown in some moments. One of the reasons for that problem was the lack of the financial budget for the edu-

cational change what did not aloud the development of the - teaching staffs and the fact of having too many students.

What respects to the identity of the level of secondary teaching goes fixing as autonomic in front to the traditional dependence some times of the university other of the elementary level and with some frecuency both of them.

About the structure of the secondary teaching, it had - predominant the tendency to the ciclical condition, almost always with the dependence of this level of teaching and with the one before and the one that follows. Anyway, in the first third part of the XX century, we must say that the plan of - 1903 was made just by a cicle of six years. So we must say that the predominant tendency was the one of one cicle, but the plan of 1926 returned to the ciclical conception. During the Second Spanish Republic and also in the plan of september of 1938, already in Franco's time, we return to the only cicle(19).

Refering to the evolution of the curriculum scientific an technic, we may apreciate in the different plans of studies of Alfonso XIII a tendency to the progresive apreciation of scientific and technics subjects taking away the usual literary tendency. In this sense, the plan of minister Callejo, of august of 1926(20), came to be the most high preocupation for giving a balance to the curriculum by introducing - new scientific subjects with the traditional of a humanistic and theorical character.

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NOTES

(1) Although we take of all the plans of studies of send teaching of the XIX century, specially the ones of september 13th of 1898, may 26th of 1899, and july 20th of 1900, the basic point of reference is the studies plans of Romanones, april 12 and august 17th of 1901, and most of all the plan of september 6th of 1903 and august 25th of 1926.

(2) A similar model of studies was applied in my paper "Some of the characteristic of the secondary teaching 19th through the legislation", presented to the First Colloquium of History of Education, Alcalá de Henares-Madrid, octubre, 6-9 of 1982, which will be published in shortly in

the inter-universitary magazine History of Education, Salamanca, summmer of 1983. A resumed version of this study titled "The secondary teaching in Spain in the XIX century. Legal notes", appeared in magazine Cuadernos de Pedagogía, Barcelona, number 29(march 1983), page 51 and followings.

(3) For the elaboration of this section of a historical characterization, we had taken notes, the following title: JOVER ZAMORA, J.Mª: Historia de España, VIII, Revolución burguesa, oligarquía y constitucionalismo(1834-1923). Barcelona, Labor, 1981; TUÑON DE LARA, M.: La España del siglo XX. Barcelona, Laia, 1978, 3 vols.; of the same author: Medio siglo de cultura española. Madrid, Tecnos, 1977; VILAR, P.: Historia de España. Barcelona, Crítica, 1979.

(4) It is very impresive to analyze the list of men and women of the culture, the arts and science that left -- Spain as a direct or indirect consecuence of the civil war. A lot of this persons went to live the more proximate european countries and, specially, in Latinoamérica, where most of them developed a great labor in their respective fields of studies.

(5) NEGRIN, O.: "Some of the characteristics of the secondary teaching in Spain...", called in note 2.

(6) See as example, the following study plans: auguust 28th of 1850, september 10th of 1852, august 26 th of 1858, august 13th of 1880 and september 13th of 1898.

(7) Royal decree organizing the General and Technic Institutes. Colección Legislativa de España, august 19th of 1901, page 698, august 17th of 1901.

(8) Royal decree organizing the second teaching(Plan Callejo). Gaceta of 28th, august of 1926. Exposition.

(9) NEGRIN, O.: "The teaching in Spain during the XIX century. Legal notes", art. cit., page 51.

(10) Royal decree organizing the second teaching, see note 8. The written is part of the second paragraph of the exposition.

(11) See note 5

(12) Royal decree reforming the studies of second teaching. Colección Legislativa de España, vol. 2º of 1898, page 244, sept. 13th of 1898.

(13) Royal decree reorganizing the studies of second teaching. Colección Legislativa de España, vol. 1º of 1899, page 56, may 26th of 1899, paragraph 7th of the exposition.

(14) Decree puted in the note 7ª ; 3rd paragraph of the exposition.

(15) Ibidem, paragraph 5º

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(16) Royal decree modifying the general studies plan to obtain the bachelor degree. Colección Legislativa de España, vol. 3º of 1903, page 96, sept. 6th of 1903.

(17) Ibidem

(18) Decree restablishing for one year the studies plan of 1903 with some adaptations. Colección Legislativa de España, t. 286, pages 432 and followings, august 7th - of 1931.

(19) Law of sept., 20th 1938. Reforms of the second teaching. Boletín Oficial del Estado, of sept. 23rd of 1938

(20) See note 8º

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