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Presentation

In this work, Prof. Carlos Correa Mascaro, director of the Instituto Nacional de Estudos Pedagógicos - INEP (National Institute of Pedagogical Studies) of the Ministry of Education and Culture of Brazil presents the basic documents of INEP as they were presented at the Second National Conference of Education (Porto Alegre, RS.Brazil - 1966). Their main author is Dr. Carlos Pasquale who was director of the INEP at that time.

The statistical data are mostly based on the results of the 1964 School Census, another initiative of INEP which is greatly enlarging the educator's realistic view on the situation of elementary education in Brazil.

Introduction

In the welter of the many problems in countries in development, where pressing needs for social and economic progress meet the lack of material and human resources, the educational problems, from the basic education of the population to the preparation of those contingents of personnel qualified for the execution of various activities, are outstanding in their degree of urgency. We must recognize that, if there is a way to make nations greater, the processe consists in the high estimation of the human being, who represents the main genuine wealth and the most fertile raw material we have. Countries which maintain a significant proportion of their population in the obscurity of ignorance renounce the most precious possession they could count on for development. When President Castelo Branco installed, on March 31, 1965, in Brasilia the First National Conference of Education, on stressing the impressive indexes of our innefficiencies in all grades, branches and forms of teaching he took the opportunity to emphasize that no inefficiency is more serious and grievous than that of primary education, whose universalization, as an instrument of consolidation of all institutions and as a factor of development, represents, indubitably, the first duty of a real. democracy. The development of the education system proves to be, in the first place, a matter of administrative policy and its solution depends not only on the planning techniques and on the pedagogic processes, but also, and above all, on the attitude and orientation of the governments in their placing of this subject within the general scheme of national development. The educational policy of our Government is to enlarge fundamental education and to increase opportunities of access to medium and superior stages of education, adjusted to the opportunities of the country and to the way of life of contemporary society. With reference to the expansion of possibilities for fundamental instruction the educational systems must, basically, take charge simultaneously of the education of the totality of the new generation who unfold to life and of grown-ups who did not achieve this first degree of human achievement. Schooling of children and education of adults must not be understood as contradictory activities but as inter-dependent processes with mutual advantages which complement each other in the sense that they fulfill the ideal of attaining a greater aggregate efficien cy in the mass of individuals who contribute to the progress of our civilization.

-2-

The present work is designed only to show Brazilian educators the most dramatic aspects of the situation of basic education in our country, parallel to the quantitative and qualitative aims of the National Education Plan, so that with the inspiration of patriotism and under the light of clear-sightedness, adequate solutions can be prescribed.

Aims of the National Education Plan

In accordance with the National Education Plan (1965 Revision) it is required that in 1970:

a) there shall be enrolled - up to the fourth grade of the primary school - 100% of the children from 7 to eleven, 70% of those from 12 to 14 in the 5th and 6th grades and almost all the remaining of the latter group in the first two grades of the secondary level.

b) all primary school teachers shall have the necessary preparation, 20% in courses for "regentes", 60% in "normal schools" and 20% in post graduate courses.

Enrollment

Studies related with the tendency of the schooling rate in Brazil, plus the results of the 1964 School Census, reveal that one cannot expect to attain the above enrollment goals at the appointed date.

In October 1964, 6,150,054 children from 7 to 11 years old, representing 66% of the population in that age group, attended primary school while the planned index was 68,1%. That means 23,056 more children.

As to the population of adolescents from 12 to 14 it can be verified that at the same date, 2,962,000 children were enrolled, corresponding to 66,4% of that age group, and there is nothing that can make us believe in the possibility of attaining the established aim, i.e. 70% attending 5th and 6th grades and about 30% going to secondary schools.

Considering 14 years old the maximum limit for the student to reach the 5th grade or the first in secondary school, the situation revealed by the following distribution of the student population, creates an obstacle to the attainment of the proposed enrollment goals:

a)	1,170,000	enrolled	in	the	first	grade	of	more	than	10	years	old	
Ъ)	521,000	11	11	S	econd	11	11	ŤŤ	11	11	11	11	
c)	289,000	ti	11		third	11	11	11	11	12	11	11	
d)	115,300	ft	11	f	ourth	11	tI	11	11	13	11	11	

If we face the problem of student's distribution in classes from various angles and in any case we will get an amazing picture of the distressing conditions extant in our primary schools.

The enrollment pyramids

The enrollment pyramids are the first indication of the chronic ailments which disfigure primary teaching. For every hundred students in the first grade, there are only 40 in the second, 27 in the third and 16 in the fourth.

Enrollment in	Brazil	Physiographic Regions						
the grades of primary courses		North	North East	East	South	Central West		
5th grade	73	42	42	53	129	63		
4th "	163	73	61	131	309	133		
3rd "	274	147	122	240	462	251		
2nd "	407	255	· 232	389	615	386		
lst "	1000	1000	1000	1000	1000	1000		

I- Enrollment in each grade in relation to 1000, in the first grade

Source: 1964 School Census, vol. 2 - Final results.

Lack of enrollment possibilities

In exact figures the lack of enrollment possibilities for children from 7 to 14 amounts to 4,698,429 cases, from which 1,202,453 in urban areas and 3,495,976 in rural areas; the number of non-enrolled children from 7 to 11 years old is 3,189,133 from which 796,143 live in urban areas and 2,392,900 in rural ones.

Physiographic Regions	7-11 years	12-14 years	Total 7-14 years		
Brazil General	3,189,133	1,509,296	4,698,429		
Urban	796,143	406,310	1,202,453		
Rural	2,392,990	1,102,986	3,495,976		

II- Children not enrolled

Drop-out and Flunking

To the lack of enrollment possibilities must be added the results of giving up studies or failing grades one or more times.Drop-out reaches high index. In 1962, from 8,533,823 students enrolled in primary schools about 1,200,000 left school; among those, 1,000,000 before completing the third grade and 647,410 during the first grade. These figures represent the drop out plus the failure phenomenon which occurs among many who accepted the conditions imposed on them by school and who tried to correspond to the standards required by it, but did not succeed.

-5-

Failure in the education system, in those two cases may be a consequence of the teacher's lack of preparation or of his poor work in bad employment conditions. Other faults of the general administration of education become manifest: extreme centralization, lack of technical assistance for the teacher, promotion system, required standards, programs, reduced time in class, etc.

Statistical data for 1962 reveal that 14% of the students leave school during the school year and from those who remain, 34% flunk, so that both phenomena together represent a loss of 43% of the educational return expected in relation to general enrollment.

Teachers

The National Education Plan requires that the Brazilian School System, in 1970, have trained primary teachers.

The School Census announced the existence of 289,865 teachers in charge of classes from whom only 56% completed courses of professional education in the first or second cycle (1).

31% of all teachers had only the primary course and 3% (10% of lay teachers) did not even finish elementary studies, many of them having reached only the second elementary grade level.

¹⁾ Cycles of secondary education, which prepare teachers for primary schools: 1st cycle (ginasio)- 4 years; 2nd cycle (colegio)- 3 years.

The various geographical regions in our country show very different conditions with reference to levels of formation and culture for teachers os elementary schools. The differences verified are, of course, a function of the conditions of the socio-economical development in each region and also of the degree of professionalization which the primary school teacher staff reached in the corresponding States.

Even more stressed is the difference that exists, in all regions, between the level of ability of teachers who perform their duties in urban areas and those who work in rural areas.

With the exception of the North and Central West regions where there are only 47,7% and 46% graduate teachers, these figures for city areas come to 84,5 in the South, 66,3 in the East and 55,1 in the Northeast.

In the rural areas the situation is, as we have shown, far worse. The majority, if not almost all the teachers, are lay personnel and what is even worse they are teachers who have had only primary instruction.

The present situation of the teacher staff for primary education makes it more difficult to fulfill the goals of the teacher qualifications in the rates indicated for each level of education.

With reference to the number of yearly graduated teachers, it can be verified that, the statistics at first sight, reveal an "illusive balance" in possibilities for improvement.

This "balance" appears when we consider the condition of the whole country, but it does not make any sense when we consider the existing differences, not only among regions and States, but even among districts and places within a State.

Besides, lay teachers continue to be nominated and employed, especially by community systems, without passing previous ability examinations and no measures are adopted to make sure that average number of trained can didates present themselves. There exists also a difficulty to find trained teachers who agree to work in certain districts of low resources and for the salary that is offered them, not even in the State system (2).

-6-

²⁾ Such a salary is frequently insufficient to cover their expenses and forms only a supplementary quota in the family budget, it does not give financial independence to the teacher.

The trained teachers settle in such places where there are schools for teacher training and often will not accept work in other places, not even in nearby districts.

For this reason the openings for employment for teachers is very reduced in certain places and discredited in others.

In São Paulo, for instance, at the examination held in 1964, 18,000 candidates registered for 6,000 vacancies and those who passed had on the average been graduated 7 years ago. A similar thing happened in Parana, which has 63% lay teachers, one of the highest indexes in Brazil.

It is clear that, adding up the number of teachers with diploma in those States to the same number in the other federal units, we will get the impression that we have enough teachers, whilst this is not the case, since a teacher qualified in one State does not generally work in another State.

Though there is a "wastage" of trained teachers, the network of "Normal Schools" goes on expanding without any provious plan to meet the real necessities. "Normal" courses pop up here and there, sometimes following political criteria, and at other times with the sole aim of educating the Bra zilian woman. Rarely do these new establishments of "escolas normais" observe the law that attributes to those institutions as their main purpose the graduation of teachers for elementary schools.

There is little public demand in many areas for the controle and regularizing of capacity, and staff, general administration, buildings etc. in the way that the true objectives of normal schools should require. A demonstration school is not a compulsory division in any establishment for training of teachers. The situation is particularly sorious in the evening "normal schools" organizations which deserve a special study of their conditions, especially their time - table and observation and practice of teach ing. Their installation should, in the future be suspended.

Need of teachers

The annual and total demand for teachers in order to attend to the increase of enrollment counted from 1964 onward is stated in the following chart:

-7-

III. Desired increase of enrollment and

	Total increase	Demand for primary teachers					
Year	of pupils	Total	with post- graduate courses	with normal course. Second cyc.	Teaching "regentes" (*)		
1964	303,000	8,636	1,731	5,194	1,731		
1965	906,000	25,886	5,177	15,532	5,177		
1966	1,076,000	30,744	6,149	18,446	6,1.49		
1967	1,213,000	34,656	6,931	20,794	6,931		
1968	1,324,000	37,829	7,566	22,697	7,566		
1969	1,498,000	42,800	8,560	25,680	8,560		
1970	1,663,000	47,515	9,503	28,509	9,503		
TOTAL	7,983,000	228,086	45,617	136,852	45,617		

need of teachers to attend it

Observation: The number of students per teacher figured in the above estimate is 35, an average applied by the Plano Nacional de Educação and by the main project of the UNESCO, but substantially higher than the one verified in the years between 1951 and 1960.

(*) A teacher who has completed the professional courses of the first cycle in secondary school.

Recruiting of teachers

To the necessary graduation of about 230,000 teachers at required levels we have to add, during the next few years, the task of training about 130,000 lay teachers.

The carrying out of this work constitutes the first step in the improvement of the standard of teaching and is of vital interest for the expansion of the school network.

We must therefore, by now, be conscious of the fact that any steps taken to this effect will not reach the planned results. They will probably be foredoomed to a premature end, unless we are prepared to establish proper wage levels for the teaching staff in accordance with their social function and capable of attracting and encouraging suitable personnel to take up the vocation of teaching.

There are many cases of teachers with diplomas from secondary normal schools, elements in whose education the community has invested appreciably, who do not entor the teaching profession or who leave it very soon, looking for more profitable activities.

The criteria for remuneration indicated by the National Education Plan, (100% of the State minimum salary (3) for lay teachers, 125% for "regentes", 150% for "normalistas" and 200% for supervisors) can well be recommended as a starting point or reference for the introduction of a fair salary policy.

The extra expenses required for adequate remuneration of the teaching staff will be compensated for the higher enrollment averages per class, by the decrease of the index of desertion and by the improvement in the yield of the teaching degree courses these expenses will be more apparent than real and will not perceptibly influence the cost per head in view of the more effective enrollment and expansion of services.

Preparation of teachers

The preparation of teachers, the training as well as the capacity of lay teachers, and also the graduation and improvement of teachers with diploma, represents one of the most serious and most complex problems to be faced in putting into practice the "Plano Nacional de Educação".

The attainment of this great effort, because of its necessary urgency and extent, requires the following necessary measures to be taken under the orientation of a central technical organ and by means of regional agencies, starting immodiately; analysis of the results of the solutions adopted up to now; inventory of all work to be carried out; survey of the funds that can be levied; future necessary re-formulation of strategies and tactics; programming and distribution of responsibilities; coordination of execution and control of work results.

The various activities could be assigned to Supervision Services, Training Centers, Study and Research Centers, Faculties of Philosophy, Institutes of Education, "Escolas Normais", other educational institutions,

3) Similar to "minimum wage" laws of some States in the U.S.A.

-9--

and professional associations for educators, etc, so as to meet the special peculiarities of each state in the Union.

Building and equipment of schools

In order to provide for the increase of enrollment needed to reach the aims of the National Plan, it is necessary to build and equip more than 140,000 classrooms.

YEAR	Increase of Students	Classrooms necessary		
1964	303,000	5,410		
1965	906,000	16,180		
1966	1,076,000	19,210		
1967	1,213,000	21,660		
1968	1,324,000	23,640		
1969	1,498,000	26,750		
1970	1,663,000	29,700		
TOTAL	7,983,000	142,550		

IV. Lack of classrooms

The above estimate was made based on an average enrollment of 35 students per class and the fact that all urban schools and half of all rural schools can possibly function in two four-hour terms of shifts per day (70 students).

The number indicated represents only those classrooms necessary to meet the demands of the desired increase of enrollment. In reality the def<u>i</u> cit is much larger because of new classrooms which are indispensable, either to bring into line the schools which now work in three or more daily shifts of two to three and a half hours each, and also to replace those school units which are working in unsuitable premises.

Cost of the investment

As first approximation - and if we limit ourselves to estimated figures and consider an average of only $3m^2$ of built area per student, which is equivalent to an average of $105m^2$ per classroom, including the

corresponding quota of space for general use - the total area to be built would be 15 million m^2 .

Attributing a value NCr\$125.00 (NCr\$110.00 for the building itself and NCr\$15.00 for furniture and equipment) to the built square meter, the execution of the plan would, at today's prices, require a total investment of NCr\$1.875 million in 6 years, corresponding to an average of NCr\$312million per year (current exchange rate NCr\$2,70 = US\$1.00).

The numbers and values cited give an idea of the importance and the extent to which the aspect of "building and equipment" of schools looms within the national educational problem.

The execution at short range of such an extensive building program including the enormous investment which it requires, is not unpracticable if, giving up traditional, slow, burdensome and deficient solutions, we make arrangements to solve it in terms of a general mobilization by joining the resources of all the three organs of public administration (federal, state and municipal) in collaboration with the communities themselves and with international financial cooperation.

An inventory of all existent buildings and the careful evaluation of the capacity and placing of the necessary premises are, in the beginning, indispensable measures when planning school building.

Final Considerations

The National Education Plan in its character as a proposition of aims to be attained in the limit of ten years, seems an adequate parameter to determine the rhythm of the development of the national education system within that period.

The possibility of attaining the proposed indexes depends on:

- educational policies which are deliberately orientated in that sense;
- administrative measures creating mechanisms able to cause changes in the structure of primary teaching;
- processes to form and perfect the efficiency of the teaching and technical staff;
- preparing and developing an intensivo program of school building.

It can however be verified that there has not been a systematic and planned action by the States in order to attain the goals in their entirety and without this, the spirit which encourages the plan and the possibility of its accomplishment ceases to exist. An effort to increase the number of vacancies in schools is being noticed but measures of that kind are hardly sufficient.

In reality we can verify that:-

- 1) The fifth and sixth years are not being established as foreseen and this is mainly because of people's and sometimes the State's lack of understanding with regard to their real purposes.
- 2) Multiple periods of fewer hours predominate in order to satisfy the increase of enrollment.
- 3) The concern to take in the greatest number of children in school brings with it the time reduction of class periods and consequently affects the program and the teaching yield.
- 4) No adequate measures have been taken to eliminate drop-out and failure.
- 5) The maldistribution in ages and the reduced number of students who finish courses (motivated by late entrance in school and by failness in examinations) make it impossible for the child to receive the minimum amount of education which could make its school life meaningful for its future.
- 6) The proportion of lay teachers is not being reduced in the ne<u>c</u> essary degree though in some regions there is a surplus of trained teachers. The placing of schools which train teachers does not favour their best distribution.

The foregoing are, in our opinion, not more than symptoms of causes which have to be taken into account in an effective national planning which should not consider only numerical aspects and even less for the whole coun try. It cannot limit itself to pointing out national aims, but must also assure the means for carrying them out. Such local planning has to be done under the inspiration and protection of the Federal Government which will stimulate, orientate and give assistance to each Federal Unit to make its own plans in which the municipalities will be integrated in the same spirit. For this it will be necessary not only to show ardent desire to succeed but to be aware of the factors which are hindering the accomplishment of the national plan and to attack these problems systematically. For this, there should be a real cooperation between the Federal Governments, and also between the latter and the municipalities for the provision of an efficient technical staff in all spheres who will take adequate measures to achieve the required objectives.

Such actions should be accomplished in accordance with the recommendations of the First and Second National Conference of Education and within the "systematics" corresponding to the new position into which the Law of Directives and Bases (4) puts the Ministry of Education and Culture, by means of the following measures:

- 1- Regulation of students distribution in school grades in accordance whith their age.
- 2- Reduction of the number of periods, in schools with three or more turns a day.
- 3- Training of supervisors.
- 4- New structure and improvement of teacher training; good plans for the placing and the functioning of schools and training centers.
- 5- Special care with the problem of municipal education which quite frequently develop in the opposite direction to the goals of the National Plan of Education
- 6- Training of principals and school administrators.
- 7- Promotion of studies, investigation and surveys on the conditions of primary education, urban as well as rural.
- 8- Encouragement for the establishment of transportation and assistance aids to the pupils.
- 9- Production and distribution of teaching and school material.
- 10- Elaboration and carrying out of plans and programs for school building following pre-established priority scales and using common financial resources.

-13--

⁴⁾ The major federal legislation providing directives for all levels of Brazilian education.

- 11- Organization of the teaching system according to the recommendation of the National Conferences of Education with the aims of making them a source of inspiration for public agencies and for private enterprise in everything they might undertake in that branch of activities of common interest.
- 12- Multiplication of the various forms of inter-administrative cooperation between the Union and the States, to strengthen the solution of their common problems in the field of education, always respecting the "attribution limits" of each other.
- 13- Establishment of indexes of "rendimento escolar" (school achievement) by which it becomes possible to measure indirectly the quality of the administered teaching and the efficiency grade of the system.
- 14- Re-structurization (re-organization) of the Secretariats of Edu cation and of their central and regional administrations aiming to elevate the skill level of the teaching staff and also the working level of the State educational systems within the modern standards of elementary education.While in the past the uniform and rigid structure of National education rended to promote and administer the whole teaching system in the country through centralized departments and was unable to work out their solutions, today, under the law Diretrizes e Bases da Educação Ng cional (Dec.1961) the Federal action will not go faster than the essential character of "supplementary aid" under the forms of orientation, encouragement, technical advice and financial help and will leave to the States the role which is their attribute: the planning and the development of their own teaching systems.

As the federal action in the elementary field must not surpass the essential character of a supplementary action, everything has to be done under the form of "encouragement", orientation, technical advice and financial help, so that "after having overcome the phase of uniform rigid structure (which was, in the past, unable to grasp the very essence of local problems and to successfully work out its solutions) and "after destroying the myth of "direct command" efficiency (with which one attempted – by means of central government organs – to promote and administer teaching in the whole country"), the States can fulfill the role which is reserved for them in the development of national education.

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