The Reform of Secondary Education and the Implantation of ENEM in Brazil*

Maria Helena Guimarães de Castro and Sergio Tiezzi

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Summary

This chapter examines the reform of Brazilian secondary education after the promulgation of the new Law of Guidelines and Foundations of National Education (*Lei de Diretrizes e Bases da Educação Nacional*, LDB) in 1996. The change in legislation, curricular guidelines and in the system of evaluation have established new bases for the constitution of a more dynamic and democratic system that aims to seek a greater level of insertion of young people in the job market. The reform, initiated in 1999, has still not been fully implemented by the education systems. The results of the National Secondary Education Exam (*Exame Nacional do Ensino Médio*, ENEM) reveal the challenges involved in the implementation of reform and the improvement of quality of secondary education in Brazil.

Introduction

Until recently, secondary education was considered to be the most forgotten education level in Brazilian public education policy. Regarded as a passage to higher education, until the mid-1980s

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secondary schooling was historically geared for the education of the elites. The expansion of secondary level education was impeded by high repetition and truancy rates. As late as 1994, the backwardness of education was still immense in Brazil. Given the prevailing culture of repetition, little more than 50% of students completed the mandatory eight consecutive years of basic education, taking an average of 12 years to do so.

It can be said that the 1990s inaugurated a new cycle in Brazilian education with the democratisation of access to basic education and the extraordinary expansion of secondary level education. This expansion was accompanied by the implementation of a far-reaching evaluation system and curricular reform. As all reform processes tend to be slow and progressive, it is still too early to assess the real impact of the changes introduced after 1999. The challenge ahead is to improve the quality of basic education, as shown by the results of assessments implemented in 1995-2002, particularly the National Secondary Education Exam (*Exame Nacional do Ensino Médio*, ENEM) discussed below.

It is worth noting that when a new government was inaugurated in 1995, more than 70% of the 4,9 million students enrolled in secondary school were attending night schools, as there was a greater supply of vacant classrooms in basic education schools for night time studies. More than 50% of all enrolled students attended professional course at secondary schools, although in reality these neither promoted professional development nor provided a good general education. In the good schools secondary education consisted of courses to prepare students for higher education entrance exams, the *vestibular*. This was the great assessment 'exam' in Brazilian secondary education, and practically restricted to the middle and higher classes. Brazilians did not know what their students were learning or what capacities they were developing.

What Brazilians did know can be summarized thus: the curriculum was excessively encyclopaedic and elitist; schools were not prepared to face the new demands posed by the modern world; secondary school finalists were literally survivors of an exclusionary system, that was completely out of tune with the process of democratisation of knowledge required by the deep changes in contemporary society.

Placing secondary education on the agenda of educators and public policy makers was a task that could be put off no longer. The democratisation of access to secondary education, an aim already achieved by almost all Latin American countries, became one of the key aims in the government's agenda. Equally important was the urgent need to elaborate a reform that, in addition to re-thinking the curriculum, would also propose a new framework for education systems dominated by the states, in accordance with the federative principles that govern the Brazilian state.

A new Law of Guidelines for Education had been in the National Congress since the promulgation of the 1988 Federal Constitution. Its passage was slow and generated intense debates and polemics. At the end of 1996, after re-democratisation and a year of government under Fernando Henrique Cardoso, the country finally approved the general education law.

The Federal Constitution states as a principle "the progressive universality of access to free secondary education"; in other words, secondary education should be progressively extended to all those who end primary education, even though attendance is not mandatory. Secondary education

becomes part of the process that the country deems essential for the exercise of citizenship and for access to productive activities, including study for personal development. Constitutional principles gained new meaning with the LDB (Law 9.394) approved in 1996, by making secondary education the last phase of basic education in Brazil, and giving young people the opportunity of gaining higher levels of education. The idea of universal education, which consisted of mandatory basic education, or primary education as it is called in many countries, went on to include nursery school and secondary education in accordance with the commitments adopted with the Declaration of Jomtiem. The LDB incorporated the aims of Education for All, gave rise to the Education Decade and made Brazil one of the rare countries in the world that dared to incorporate the commitments of Jomtiem into general education law.

Thus, a new panorama began to emerge in Brazil in the 1990s: as basic education became universal and consolidated, large contingents of finalists began to seek new future paths. Enrolment in secondary education is increasing, the supply of places in the public sector has increased at an extraordinary rate, the number of young people attending night school is falling, a new curriculum is taking hold, preparatory and professional secondary education (not the subject of this chapter) is being re-structured and re-organised, and finally, a new system of evaluation, the ENEM, and the new curricular guidelines in particular, are now guiding the reform process.

This chapter looks at the implementation of the reform of secondary education, and uses ENEM results to analyse the limits and great challenges that must be addressed to attain completely universal access to and to ensure the necessary level of quality of basic education.

Context

It must be remembered that at the beginning of the 1950s only 650 thousand students out of a total population of more than 50 million people were enrolled in secondary school. In the 1960s, there was a timid expansion as a result of the implementation of a system to recognize the equivalency of secondary level studies to aid professional and academic studies. However, it was only a formal equivalency, and did not create the conditions necessary to aid the professional development of students who might not want to engage in further study.

At the beginning of the 1970s, the law for the organisation of the Brazilian education system established that mandatory education would consist of 8 sequential years, which added the first phase of secondary education to the already mandatory primary education. Thus, the legal opportunities for more years in basic education improved for the population as a whole, as secondary education became second cycle of schooling leading to professionalisation. In practise, the interpretation of the law and resulting arrangements ended up creating two types of secondary education: one to prepare people for professional life, and a propaedeutic one.

These changes led to a first wave of growth of secondary education by eliminating the exam taken to pass from the old primary level to the first cycle of secondary education. Thus, between 1970 and 1980, more than a million new students enrolled in secondary education. This growth was not sustained in the 1980s, however, and it was only in the 1990s that increased enrolment was

Tabela 1 - Evolução da Matrícula Inicial no Ensino Médio por Dependência Administrativa - Brasil 1971/2001

Ano	Total	Pública					Privada	%
		Total	%	Federal	Estadual	Municipal		
1971	1.119.421	632.373	56,5	44.604	536.695	51.074	487.048	43,5
1980	2.819.182	1.508.261	53,5	86.125	1.324.682	97.454	1.310.921	46,5
1991	3.772.698	2.753.324	73,0	103.092	2.472.964	177.268	1.019.374	27,0
1995	5.374.831	4.210.346	78,3	113.312	3.808.326	288.708	1.164.485	21,7
1998	6.968.531	5.741.890	82,4	122.927	5.301.475	317.488	1.226.641	17,6
1999	7.769.199	6.544.835	84,2	121.673	6.141.907	281.255	1.224.364	15,8
2000	8.192.948	7.039.529	85,9	112.343	6.662.727	264.459	1.153.419	14,1
2001	8.398.008	7.283.528	86,7	88.537	6.962.330	232.661	1.114.480	13,3
%1971/2001	**650,2**	**1.051,8**		**98,5**	**1.197,3**	**355,5**	**128,8**	
%1995/2001	**56,2**	**73,0**		**-21,9**	**82,8**	**-19,4**	**-4,3**	

Fonte: MEC/INEP

observed again. The main causes for the interrupted growth of secondary education are the implementation of an erroneous secondary education model and the low quality of mandatory education, which resulted in high rates of repetition and a concomitant break on student flows. For the lowest income sectors, the big challenge was simply to end basic education, and few met with success.

The new wave of growth in enrolment in secondary education in the 1990s far outstripped the rate of growth observed in the 1970s. In 2002 there were more than 8,7 million students. At the peak of the first wave of growth in the 1970s, the participation of private schools in enrolment rates reached its highest level, accounting for more than 46% of total enrolment. In 2000, the participation of the network of private schools fell to below 15%, which shows that expansion was mainly a result of public sector efforts.

Two factors can explain the extraordinary expansion of secondary education over the last decade. On the one hand, the progressive decline in high repetition rates led to improved student flows in basic education, generating a new demand for secondary level education. On the other hand, the technological innovations of the last decades have introduced constant innovations in the production of goods and services and led to the emergence of very technologically advanced productive sectors. Products and processes become obsolete very quickly. New disequilibria linked to technical knowledge applied in the productive process are generated, which radically change the demands that society places on the education sector.

In order to ensure good conditions for education it is necessary to constantly adapt to rapid technological evolution. The re-articulation between education, work and technology constitutes a new challenge that demands more institutional flexibility, innovative partnerships and constantly updated teaching content.

In this context, secondary education becomes a central issue in current debates about education systems the world over, in the attempt to articulate the aims of preparing students for further education, the exercise of citizenship, work, and personal development.

The education model that shaped a certain limited period of people's lives is no longer useful; today, education has to be a frequently revisited and permanent process to develop new knowledge. A general basic education is the new paradigm. All young people must develop the ability and competence to 'learn to learn' or to develop the capacity to think logically and critically and contextualise all acquired knowledge.

According to this new view, professional training must become a complement to basic education and be organised in a flexible way that permits constant updating to keep up with

technical progress. Education cannot remain purely academic when one is dealing with students that do not aim to enter higher education. The permanent education called for by society demands that education systems fulfil two basic conditions: universal secondary schooling and a wide-ranging and diversified system of post-secondary professional education that is flexible and open to everybody. This was the gist of the Brazilian reform.

Much has been done over the last decade to overcome the backwardness in Brazilian education accumulated by decades of negligence. Today, 97% of children between the ages of 7 and 14 are in school and illiteracy has been falling drastically. However, while basic education became practically universal, the same cannot be said of secondary education, as shown by the data presented below.

The biggest problem is the quality of education, which does not ensure basic learning levels. Part of the problem lies in the entry of new social groups to the school system. Teachers are often insufficiently trained to deal with students whose parents had little or no schooling or who come from broken homes. However, part of the problem is also a result of the lack of incentives to embark on a teaching career or to undergo initial and continued teacher training, as such courses are often inadequate for the promotion of improved standards of quality.

It is not only the federal government that is responsible for education, however. According to the constitution, the states and municipalities are also responsible for basic education: they are required to spend 25% of their budgets on education. As a whole, these resources are superior to those available to the federal government. Thus, a realistic policy must be based on a joint effort by these three spheres of government.

In Brazil, secondary education has always oscillated between two basic alternatives: providing education, which is final, that prepares people for professional life, or providing propaedeutic education that prepares people for higher education. This second option is further subdivided according to the course of graduate study that students want to follow. For those who have already passed the normal school-attending age, the only way to attain a higher level of education was through supplementary basic and secondary education, which effectively closed the door for professional or technical education.

The reform directed by the Ministry of Education in the period between 1995 and 2002, aimed to improve and expand secondary education in tune with the demands of the productive sector and with the developmental needs of the country, society and citizens. Unlike the vision that under pinned the 1971 LDB, the new LDB views secondary education as a way to ensure continuity of basic schooling, and aims to promote a general culture that focuses on understanding the world today, maintaining technical courses after or alongside propaedeutic education to meet the demands of a clientele that is already largely made up of workers.

The model inspiring the Brazilian education reform implemented by the new LDB passed on 20 December 1996 and other later decrees was the new education paradigm that began to orient most secondary or professional education reforms around the world in the 1990s. Laws do not change reality, but they undeniably call for and guide change.

In Brazil, technical-professional education was historically undertaken by middle class sectors with the intention to enter higher education rather than the job market. Because the best technical schools were federal institutions, which offered free general as well as technical education, they ended up becoming preparatory courses for higher education. Thus, they lost the students that were really interested in learning a profession, and the job market found it difficult to find qualified professionals.

A very substantive element of the reform was that professional education became independent of secondary education and a complementary part of basic education; in other words, professional education no longer replaces or competes with basic education.[1] The LDB also established that secondary education could be undertaken alongside technical professional education. This called for and continues to demand an enormous governmental and social effort to increase options for post-secondary studies.

Thus, the secondary level education reform, whose implementation began in 1999, is based on a set of policies that focus on four key aims:

- Expanding the system to attain universality progressively;
- Re-defining the role of secondary education in the education process as a whole;
- Improving supply;
- Improving the quality of education.

The Growth of Secondary Education

Secondary education in Brazil has expanded immensely over the last decade, after almost two decades of the vegetative growth that directly accompanied the expansion of higher education. It was the level of education that grew the most, overtaken only by secondary level supplementary education.

Tabela 2 - Crescimento do Ensino Médio

Nível de Ensino / Ano	Matrícula	Concluintes	Taxa de Escolarização Bruta	Taxa de Escolarização Líquida
Ensino Médio				
1970	1.119.421	...	...	...
1980	28.191.824	545.643	33,3	14,3
1991	3.772.698	666.334	40,8	17,6
1994	4.932.552	917.298	47,6	20,8
1998	6.968.531	1.535.943	68,1	30,8
2002	8.710.584	1.853.343*	74,8	32,6
* concluintes 2001				
Fonte: MEC/INEP				

The numbers are eloquent: according to the School Census of the Ministry of Education, in 2002 around 8,7 million students were enrolled in secondary education, more than double the number of

[1] See the chapter by Claudio de Moura Castro in this book.

students enrolled in the beginning of the 1990s. Between 1994 and 2002, there were 3,7 million new enrolments in regular secondary education, after 14 years of vegetative growth. In 1980-1994, only 1,8 million new enrolments were added to those already in existence. The number of students finishing this level of education also increased. In 1991-1994, the number of finalists had increased by 40%, from 660 thousand to 917 thousand. From 1994, the system promoted better student flows, so that by 2001 there were 1,8 million finalists.

However, there is an even greater number of students who found it difficult to conclude their secondary level studies. Over the last few years, students who are behind in their studies and over 18 years old, and those that had to abandon their studies, are increasingly seeking youth and adult education. According to the law, by taking an official exam, a young person can obtain a finalist's certificate by undertaking a faster, more condensed version of preparatory courses (the so-called supplementary or *supletivo* courses). Different courses to educate young people and adults were put on offer mainly by civil society, non-governmental organisations, religious communities and businesses.

Enrolment for this kind of education practically tripled in 1995-2001. The number of successful finalists also increased. In 1995, student flow calculations estimated that 71 out of every 100 people leaving school were successful finalists. The estimates for 1999 indicate an expected rate of 78 per 100 school-leavers.

Increased demand is a result of the progressive increase in basic education finalists on the one hand, and on the other to a job market that is ever more limited and demanding in terms of required educational qualifications, and pushes youths and their families to prolong the investment in education, particularly in large urban centres and in the more developed states.

The data on education in Brazil in 2001 published by the National Institute of Educational Studies and Research (*Instituto Nacional de Estudos e Pesquisas Educacionais*, INEP), already makes it possible to identify a tendency for improved student performance in basic, including secondary, education. There was a positive evolution in the rate of student passes, from 71,6% to 75,8% between 1996 and 2000, and a decline in the number of failures from 9,5% to 7,5% over the same period. The number of students that abandon their studies has also declined, falling from 18,9% to 16,7% over the same period. Although the improvement reflects an increase in the number of successful basic education finalists, entering secondary level education is still a big challenge for most young people (Abramovay and Castro 2003 p. 25-26).

Another important element to highlight is that the increase in school attendance occurred mainly in the public municipal or state-level school network. In 1985-1997, the rate of growth of both was 174% and 161%, respectively, while for the private school network it was 26,2%.

In addition to the pressure exerted by a job market that now requires secondary level education as a qualification for entry, this expansion can be explained by four main factors:

i. The positive results of a set of policies linked to the improved functioning of basic education;
ii. An emphasis on programmes to combat repetition rates and improve student flows;

iii. The reform of secondary education and policies implemented to strengthen secondary education as a final stage of basic education;
iv. The implementation of ENEM from 1998 onwards.

The new LDB of 1996 proposed the development of new curricular guidelines and an assessement system to evaluate the education system as instruments to assist the implementation of a richer and more analytical kind of education. This culminated in the National Curricular Parameters for Secondary Education (*Parâmetros Curriculares Nacionais?*, PCN), and the institution of the ENEM.

The New Curricular Guidelines

The first step in the reform was the inclusion of secondary level schooling in basic education; in other words, the education available to all citizens had to be the educational foundation necessary to exercise citizenship. For this to work, professional education had to become a complement to basic education so that education for work did not become confused with professional education. In basic education, the contextual development of competences, abilities and contents had to constitute a basic preparation for work although it was not strictly speaking professional.

Two key ideas began to orient the policies of the government: improving the quality of basic education for everyone and diversifying post-basic education. As the final stage of basic education, secondary level schooling had to prepare young people to enter the job market as well as to engage in further study, but its main aim was to educate people for citizenship.

In order to fulfil this aim, the reform emphasised the contextualisation of learning and the pertinence of contents and competences to be developed by schools. A pluralistic and diversified group of consultants, made up of specialists from various universities, state university professors, school directors, education secretaries and technical teams from the states, which undertook to identify good practise, articulate the vision of the new curriculum, discuss the obstacles to financing the expansion of the system, and elaborate a strategic plan to better equip the education networks under the aegis of the states of the federation.

The involvement of the media in the process leading up to the reform was very relevant. There were constant interviews in in the press, on the radio and television, an agenda of regional meetings throughout the country was defined, and there was articulation with the unions in 1995-1997. At the end of 1997, a proposal of National Curricular Guidelines for Secondary Education was submitted to the National Education Council (*Conselho Nacional de Educação*, CNE), although the proposal went beyond what is normally understood as curricular reform, because it addressed organisational and school management issues. The debate and public meetings at the CNE occurred throughout 1998 and in 1999 the Ministry of Education finally approved the guidelines.

In 1998, the CNE legalised the National Curricular Guidelines for Secondary Education (Resolution CEB/CNE nº 03/98), on the basis of the CEB/CNE Report nº 15/98. The PCN, a base

document on the basic content of school subjects, are based on the Guidelines. The PCN are a common point of reference for the whole country, but they can be adapted to suit the characteristics of each region.

The new parameters for secondary education elaborated by the group of specialists hired by the Ministry of Education are based essentially on an articulation between students' various life contexts and basic competences and abilities, rather than on the accumulation of information. Understood as a general education, the new secondary education articulates a strong scientific and technological component with humanism, making it possible for schools to create various different possible paths when building the curriculum. The new secondary education should not be confused with professional education, which can be undertaken in specialised schools or in businesses without replacing the basic education offered by secondary level schooling. In light of the above, the reform is based on three elements:

i. **Flexibility**, to meet the needs of different people and situations of change that characterise the knowledge-based society;
ii. **Diversity,** which ensures that attention is paid to the needs of different groups in different areas and in different age groups;
iii. **Putting Knowledge in Context,** which by guaranteeing a common base for the national curriculum, also allows for the diversification of paths of curricular grids and the constitution of meanings that make sense of the learning process.

What does this mean in practise? Until the 1970s, professional secondary education had to prepare people able to use machinery and direct production processes. The policy of turning part of Secondary Education into Professional Education arose from this. In the 1990s, because of the 'information technology revolution' learning content was always changing, demanding of students the «acquisition of basic knowledge, scientific training, and a capacity to use different technologies related to the area of activity». (*Ministério da Educação* 2002, p. 15)

The proposals in this initiative are based on the analysis of the growth of enrolment in secondary education, taking into consideration that this growth affects state and night schools in particular, and therefore reflects the entry of new actors, including workers, into secondary level education. According to Guiomar Namo de Mello, the rapporteur of Report nº 15 of the CNE, in order to welcome this new contingent – the influx of which will tend to increase even more over the next few years –, secondary education cannot be just a passage to higher education: the idea of preparing people for work aims to overcome the duality of secondary education: this preparation will be basic or that which should be the basis to educate all people for all kinds of work. Because it is basic, the point of reference will be the changing demands of the job market, which explains the importance of the capacity for continued learning; it is not aimed at those who are already in the job market, or that will enter it soon (Mello 1998 p. 15). It was necessary to go beyond the two historical alternatives – academic or professional – to create a model able to take into account the necessary cognitive competences to continue learning, socialising, producing, and defining an individual identity. As many professions may cease to exist in the coming years and many others

may be created, it is necessary to develop flexibility, creativity, polyvalency, and the capacity for continued learning.»

The introduction to the PCN highlights that a curriculum must define contents and strategies to prepare citizens to develop knowledge in the three basic areas of human activity: social life (political relations), productive activity (work relations) and subjective experience (generation of symbols). These are the four premisses "noted by UNESCO as structural elements for education in contemporary society: learning to know…learning to do…learning to live… learning to be" (*Ministério da Educação* 2002, p. 29-30)**.** Based on these premisses the Parameters propose a secondary education curriculum that is responsible for the general education of the student, attributes meaning to school knowledge, and stimulates the development of affective and cognitive competences such as the capacity to research, think logically, argue, work in a team, develop ethical values like tolerance, generosity, respect for others, be creative and learn to learn continuously through a learning and education process that is contextualised rather than compartmentalised, and which is not based on the quantity of knowledge imparted or a mere exercise in learning by rote.

The meet these demands, the PCN put forward basic criteria based on two pillars: the Common National Foundation and the Diversified Section. The Common National Foundation must prepare students to seek, generate and know how to use information to solve concrete problems in the production of goods and services, because "any competence required to exercise a profession, be it psycho-motor, socio-affective or cognitive, is a refinement of basic competences. This general education permits the development of competences that will manifest themselves as basic, technical or management abilities." (p.30-31). It is divided into the following areas: language, codes and their categories, natural sciences, mathematics and its technologies, human sciences and its technologies. The diversified section of the curriculum must take into account the social, cultural, economic characteristics of regional and local environments and of its clientele. Finally, the PCN very strongly recommend that all education should have an interdisciplinary and integrated focus: thus, languages, philosophy, the natural and human sciences and technologies must be considered as a whole, in order to overcome the separate and compartmentalised treatment that characterises school education dominated by separate specialisations. The context in which students live should also be taken into account, not as a restriction but rather to "generate the capacity to understand and intervene in real life." (p. 36).

To achieve these aims, secondary education must be understood as a unitary modality that contemplates diversity and flexibility, so that the adoption of the new curriculum is concomitantly:

1. **Diversified** in terms of content and selected contexts, with a focus on areas of knowledge that respond to the needs of the production of goods, services, and knowledge of citizen life and individuals:
2. **Unified** in terms of cognitive, affective and social abilities, which constitute the basis of diversified contents, in order to guarantee a general common education for all.

Thus, professional education is considered as a complement of secondary education, a complement of all basic education, demanding differentiated levels of schooling for different levels of qualification. The proper linkage between basic preparation for work offered by secondary education, and professional education, which aims to prepare people to exercise specific tasks at work at the technical or higher level, must be obtained by further study or directly at work.

The Search for Quality

One of the biggest challenges for the reform of secondary education in Brazil is harmonising the need to expand supply and efforts to ensure improved quality. There is an accelerated process of massification of secondary education underway, and improved quality must accompany the process of inclusion of historically excluded social groups. The indicators show that the efficiency of the system has improved: enrolment increased by 71% in 1994-2001; the number of finalists increased by 102% over the same period; the liquid rate of coverage of people between 15 and 17 years of age has increased from 16% in 1994 to 33% in 2001. Thus, there has been a doubling of the participation enrolment of youths in the right age group in just 8 years.

The countries that have recently witnessed improvements in the performance of their students, like South Korea, promoted the expansion of the system and mass inclusion in secondary schools in the 1970s and later invested heavily in improved quality. It is therefore an enormous challenge to expand and ensure quality, a process that occurred over a period of two decades in developed countries.

The big challenge is improving the pedagogical process in schools, with government authorities acting to promote and offer technical assistance to schools. This requires improved pedagogical practise in the classroom, a strong emphasis on programmes for ongoing teacher training and improved school management so as to promote progressive school autonomy in pedagogical, administrative and financial terms.

Better management means innovative management of the classroom and school administration, and improved management of the systems' intermediary organs. The basis for innovative pedagogical action is ongoing teacher training to serve teachers, and the development of resources and methodologies that suit the new curricular vision. Innovative management of schools also depends on the continued training of directors and school administrators, with the development of a culture of school planning, institutional evaluation and student learning. In this sense, Brazilian public schools are still very far from attaining the aims of the proposed reform.

Because of this, the MEC produced, published and distributed the PCN together with legal texts and a series of reference materials to support teachers. A series of programmes for secondary schools was produced, which were transmitted daily by School-TV (*TV-Escola*), the Ministry of Education television channel, which sought to offer schools a toolbox to implement the reform. This programming sought to fulfil three main aims: support the work of the teacher in the classroom; make available up-to-date materials and information to support the training of teachers and school

managers; disseminate the ideas behind the reform emphasising interdisciplinary and integrated learning.

The evaluation of secondary education through the ENEM and the National Evaluation System for Basic Education (*Sistema Nacional de Avaliação da Educação Básica*, SAEB) is also a central aspect of the reform and policy to promote improved quality. The ENEM, the mechanism to assess individuals after 11 years of schooling, seeks to implement the principles and guidelines of the reform of secondary education through an essay and an objective test. The SAEB promotes and evaluates education systems and identifies the main obstacles to the implementation of the reform, so that subsidies for improved education quality policies can be determined. The ENEM produces a wide-ranging diagnosis of student profiles, and the SAEB a profound diagnosis of systems of education, the organisational matrix of schools and a detailed profile of the teachers and administrators in the system.

The National Secondary Education Exam (ENEM)

The ENEM has been a valuable instrument in the policy to implement the reform of secondary education, disseminating its aims intensively throughout Brazil.

The ENEM emphasises the evaluation of the profile of finalists emerging from this education level. Its main objective is to offer an assessment of student performance at the end of basic schooling, according to a structure of competences associated with disciplinary contents that the student has hopefully absorbed to meet the growing challenges of modern life.

The importance of a more analytically rich education content that is based on the development of logical thinking and the capacity to learn to know is at the heart of the ENEM, which seeks to eliminate gradually the gigantic curricula and allow secondary schools to concentrate on what is important to teach. Thus, the school must allow students to develop more general language structures, the sciences, arts and philosophy in a learning dynamic that allows young people to mobilise these traditional areas of knowledge to seek creative solutions for day-to-day problems. After all, the value of education does not lie in the storage of a lot of information or the memorisation of lots of facts, but in the development of mental structures that allow young people and adults to confront new problems using good established scientific theories.

The ENEM, which thousands of young students use to assess themselves, also assesses how far schools respond to the challenges posed by society, both in terms of the full exercise of citizenship and of offering adequate training for higher education, guided by the idea of ongoing education. By determining a set of competences and abilities that served as a point of reference for evaluation, the ENEM established for the first time in Brazil a benchmark for basic education finalists, in much the same way that other international exams, like the SAT in the US or the BAC in France, among others, do.

In this sense, the ENEM allows the government to pinpoint and understand the dimension of the gaps that weaken the process of educating young people and make more difficult their individual fulfilment and insertion into society's production process. On the other hand, as an

instrument of public policy, it seeks direct assistance from its target public to assess the guidelines to be followed.

The conceptual structure of the ENEM assessment has been improving since its first application in 1998, based on the key point of articulating the concept of basic education with citizenship. It is a single, multidisciplinary test consisting of an essay and 63 objective questions, based on a matrix of five competences and 21 abilities. Thus, unlike most exams it is not divided into areas of study. The ENEM follows the guidelines of the reform of secondary education and takes into account the guidelines of the parameters of the secondary education curriculum, demonstrating that it is possible to work with different contents in a trans-disciplinary way, and emphasising learning through the resolution of problems, by using topics that are part of the personal lives of students, the social life of the school and its context. The five areas of competence evaluated by the ENEM contemplate:

- Fluency in Portuguese, and in the mathematical, artistic and scientific languages;
- Use of concepts to understand natural phenomena, historical-geographic processes, technological production and artistic manifestations;
- Use of data and information to make decisions in problematic situations;
- The construction of consistent arguments;
- The capacity to elaborate proposals to intervene in reality, respecting human values and taking the socio-cultural diversity of the country into account.

Between 1998 and the fifth ENEM in 2002, 3,3 million students had been evaluated. The ENEM, which is voluntary and free of charge for students leaving public schools, is covering an increasing number of municipalities where exams are held, with a view of facilitating access for those who are ending secondary education throughout the country.

Table 3

Numbers of the National Secondary Education Exam (ENEM)

Anos	Nº de IES que Utilizam o ENEM (1)	Nº de Municípios que Sediam os Exames	Nº de Inscritos Presentes no Exame
1998	1	184	115.575
1999	93	162	315.960
2000	199	187	352.487
2001	296	277	1.200.883
2002	338	600	1.327.577
Total acumulado de participantes			3.312.482

Source: Ministry of Education/ INEP

Notes: (1) The higher education institutions that already use the results of the Exam as a selection criterion for their graduate courses.

The ENEM has made it possible to gain a more palpable understanding of the pillars structuring secondary education reform: an interdisciplinary approach, putting learning into context and solving problems; it has allowed teachers and education specialists to visualise clearly the desired performance of young people, as is required by each of the subjects. In that sense, it is a powerful instrument to induce change insofar as it expresses what should be taught through what it assesses.

One of the main results of this has been the acceptance of the voluntary exam by schools through teachers and students. The ENEM is now considered an important element to understand the competences of secondary school finalists and, as the table shows, the number of universities and other higher education institutions that make use of its results as a criterion for the selection of candidates for graduate study is increasing. This observation leads us to the problem of entering higher education.

"The explicit strategy of the Ministry of Education was to attempt to encourage higher education establishments to review their entry exam (*vestibular*), either by taking ENEM scores into account when selecting candidates, or by creating tests in the spirit of ENEM. In that sense, the exam aims to evolve in a critical area, which is the fact that the process of selection for higher education has an enormous influence over what is actually happens in secondary education." (Abramovay and Castro 2003 p. 220)

As the rector of graduation of the State University of Campinas testifies:

"The self-exclusion of these students (secondary education finalists) is notorious in the most competitive entrance exams (*vestibulares*). At Unicamp, for example, only about 30% of final year public secondary school students register, although these represent more than 80% of enrolments from that level of education in the state of São Paulo. The three universities of the state of São Paulo decided to adopt the ENEM from 1999 onwards as a part of entry policy in order to make it possible to diminish the self-exclusion of candidates who often are not aware of the competences developed during basic education to the *vestibular*; in order to contribute to improve self-esteem; in order to create incentives to take an exam that is nationwide and covers the very large universe of students finishing basic education; and finally, taking into consideration the possibility of contributing to improving the instrument of evaluation in terms of content and form." (Cortelazzo 2001, p. 7).

Thus, although higher education institutions decide autonomously whether and how to use ENEM results, and although the ENEM is not a prerequisite to obtain a degree, this is an exam that is valued by the Ministry of Education and by students, particularly insofar as it has gained some weight in the process of entering higher education.

With the coverage obtained in 2002, it was possible to gain a nationwide view of the perception of young secondary school finalists of their school experience, the nature of the schools they attended and their opinions about the relationships developed in the context of learning and school socialisation.

The 2002 ENEM sought to widen its understanding of the limits on and possibilities open to young Brazilians by more deeply identifying their values, opinions and attitudes. In this sense, the aim was to draw a map of their interests and expectations, the context in which their personal relations occur and the ways in which they enter the public debate. A pedagogical project that hopes to raise the quality of citizenship must be based on permanent and updated knowledge of the views and demands of people and thus complement the virtuous cycle of the schoolteachers' and schools' work with students.

The Most Significant ENEM Results Observed

Performance in ENEM is measured according to five basic competences: language fluency, understanding of phenomena, confronting situations and problems, building arguments and elaborating proposals to deal with real life issues.

Since it was first administered, the exam has highlighted comprehensive reading as a basic competence that affects all the others both through the essay and the objective section. A more sophisticated reading ability presupposes the use of various psycho-linguistic mechanisms. The main one is the understanding of language – fluency in the official written language, the absence of which is detriminal for all other subjects, although it does not ensure comprehensive reading of itself.

After all, 'reading the world' means fluent abilities and strategies to process information, including mathematical, scientific languages, texts with diagrams, graphics, tables, charges, in sum, the various kinds of complex social codes that are increasingly a part of and manifest in language.

Textual knowledge complements linguistic knowledge. The essay and objective part of the exam are organised into discussion texts, the organisation and structure of which the reader must master. The central element of the discussion text is the topic, which is presented through logical relationships – premises and conclusions, cause and effect, and so on. The difficulty that participants may have with managing the text probably reflects difficulties in comprehensive reading.

'Knowledge of the world' is another aspect of comprehensive reading and links up with the reader's background and its use in constructing the read text's meaning. This background articulates personal, interpersonal and social knowledge that is built up over various moments in life, and in the case of ENEM, mainly in a classroom situation.

For the essay, various stimulating texts for reflection are provided to provoke an understanding of the topic through a reading process that triggers this 'knowledge of the world'.

In 2002 the Exam results show the same tendency observed in previous years, which is precisely the absence of fluency in reading comprehension that seems to have been the main reason for the participants' weak performance.

Generally speaking, one observes that the participants understand the essay topic but for the most part are unable to transpose the key ideas abstracted from the stimulating texts into their own essays. One observes the mere transposition of the stimulating texts, without an individual

interpretation of the topic according to each participant's background. This was probably the case because the topic called for knowledge of different areas and specific languages and a capacity to establish relationships between the latter and the main focus of the texts.

On the one hand, the school curriculum's traditional division into separate areas of study probably increased the difficulty of interdisciplinary comprehension of the ENEM essay, which shows that the aim of the curricular reform has yet to be achieved. On the other hand, the participants showed little reading experience or difficulty in inter-relatting different stimulating texts.

Those who understood the proposed essay topic were unable to transcend the interpretative/reproductive level because when selecting the information to argue the topic, they simply collated facts, data, arguments or opinions that appeared in the stimulating texts. Only around 13% undertook the comprehensive process, both reading the proposal and transposing it into their essays.

The difficulty with reading in the objective part of the test was also largely the main factor responsible for low student performance. According to the Pedagogical Report of the ENEM in 2002:

> The absence of reading comprehension fluency was possibly the cause of the level of performance attained. Only a superficial and fragmented reading can explain a choice of answers that reveals the reading of graphics dissociated with the proposal, alternative choices dissociated from the context, a difficulty in establishing relationships between languages expressed in tables, formulas, graphics, the choice of contradictory and mutually exclusive statements and arguments (INEP 2002a, p. 192)

Reading comprehension calls for students to demonstrate various abilities: word recognition, an understanding of grammatical and semantic relationships between words, and linking words and concepts through inference. It is likely that the non-assimilation of the basic content that is typical of the curriculum that should be in place for basic education, linked with the absence of reading habits, led to a superficial and fragmented reading of the questions, which seems to have led to the choice of erroneous answers in the objective part of the test. The same kind of difficulty led to the elaboration of essays that while adequate in terms of the proposed topics, presented structural problems.

It should be remembered that in 2002 more than 73% of ENEM participants underwent secondary education within the state system. In 2001, the percentage was 66%. This means that the profile of the students assessed is closer to the profile of secondary school finalists from the state system than of students preparing to enter higher education.

The ENEM 2002 Results

The global average for the essay in the 2002 exam was 54,31 points. Most of the participants (72%) scored between 40 and 70 points and were classified as *Regular* to *Good*. A further 16% scored between 0 and 40, which was considered *Insufficient* to *Regular*. The 12% of the students scoring

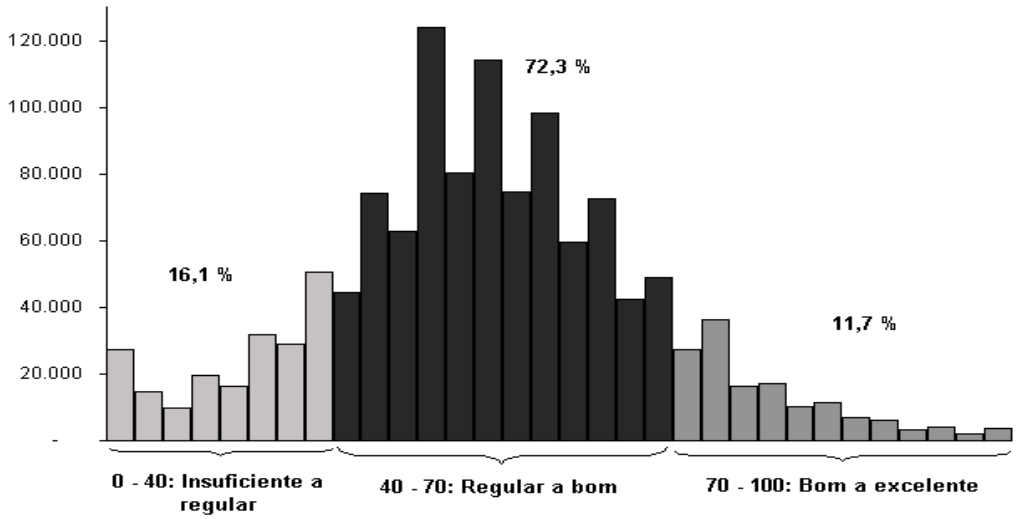
the highest points between 70 and 100 were graded as *Good* to *Excellent*. In 2001 the average for the essay was 52,58.

The topic chosen for ENEM 2002 – *The Right to Vote: How to Make this Conquest a Means to Promote the Social Transformations that Brazil Needs?* - proved to be very current and was well received by the participants. Because Brazil was in the middle of an election year, with all the dissemination and debate that this involves, a greater number of participants were able to perform more satisfactorily. For this topic, participants did not have to resort to specific contents in various scientific areas and discussed the proposed topic with greater ease.

The table and graph below present data on participants' performance, indicating the global average for the essay and each area of competence.

Graph 1

ENEM 2002



Distribution of Overall Essay Scores

Table 4

Overall Performance in the Essay

	Mean score
Overall Results	54.31
Competency I	61.03
Competency II	52.99
Competency III	51.64
Competency IV	54.14
Competency V	51.78

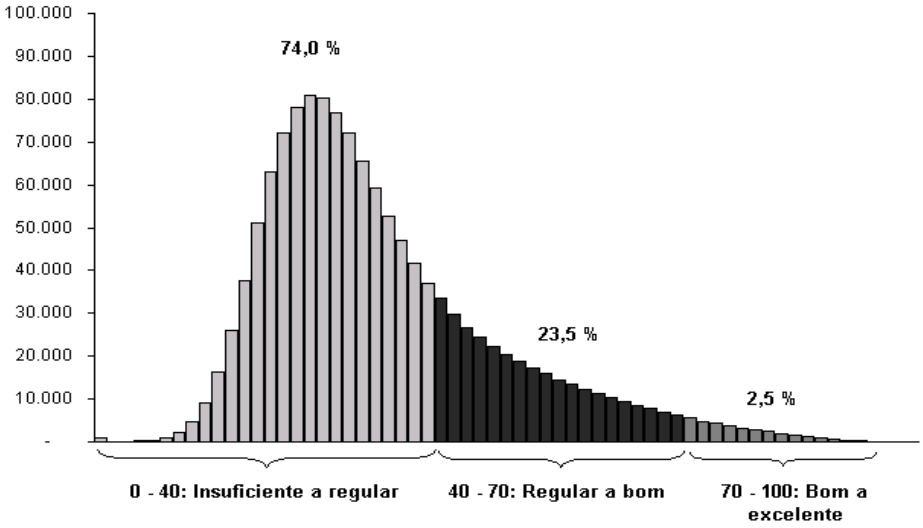
From among the five competences assessed the participants did best in Competence I, which includes fluency in formal written language (relevance of the text, grammar and orthography), with an average 61,03 points. For this competence, 50% were *Regular* to *Good*, and 38,5% were graded *Good* to *Excellent*.

The lowest average was for Competence III (selecting, relating, organising and interpreting facts, opinions, and arguments to defend a point of view) with 51,64 points; 60% of participants were classed as *Regular* to *Good* and 15,5% *Good* to *Excellent*. A pedagogical analysis of this competence reveals that most of the participants merely reproduced the arguments presented in the essay proposal.

The objective part of the test is made up of 63 questions all worth the same amount of points, graded on a scale of 0 to 100 points, which yields a total score corresponding to the sum of the points for each corrent answer. Further, points are given to each of the five assessed competences according to the same scale.

For the objective part of the ENEM, which attained an average score of 34,13, 74% of the participants were graded *Insufficient* to *Regular*. A further 23,5% scoring between 40 and 70 were graded R*egular* to *Good*. The highest points were scored by 2,5% of the students, who were graded *Good* to *Excellent* (Graph 2). In 2001, the overall average for the objective part of the test was 40,56, a little above the result for 2002.

Graph 2
ENEM 2002
Main Results: Overall performance in Multiple Choice



The necessary knowledge for the participant to answer the 63 multiple-choice questions is evaluated according to the five basic competences and 21 abilities. Competence II (understanding phenomena) attained the highest score of 35,14. Competency III (confronting problematic situations) scored a lower average: 32,26. The average in each of the five competences was mostly *Insufficient* to *Regular*, the same as the general average for the objective part of the test (see Table 2). The essay and multiple choice questions both took the same five competences into account, making the student undergo two major tasks: one expressed through writing and another through reading; in other words, the participant had to discuss a proposed topic in the first part and read the questions and choose an answer from among five alternative responses in the second part. The practise of writing and reading is, like nay other, based on the use of two cognitive systems: that which permits understanding and that which permits execution. The reading and writing competences assessed by the test are complementary and cannot be dissociated, and express the performance potential for the same five structural competences.

Table 5
ENEM2002
Main Results
Overall Results in Multiple Choice

	Mean
Overall Results	34.13
Competency I	33.72
Competency II	35.14
Competency III	32.26
Competency IV	34.55
Competency V	33.37

The kind of school attended, the age of the participant, their income level and their parents level of education are factors that condition the performance of ENEM participants. These factors and interrelated and must be understood within a wider context. Students from higher income families normally have more educated parents and also have easier access to cultural goods such as books, computers, cinema and travel.

Generally speaking, the higher the income bracket and parents' education, the better the results. Young people from families with up to one minimum wage have an average performance of 26,01 for the objective part of the test, while participants with an income above 50 minimum wages get 52,67, as shown in tables 3, 4 and 5. The association between low parental education levels and the performance of students was also highlighted by the 2000 International Programme for Student Evaluation (*Programa Internacional de Avaliação de Estudantes*, PISA) evaluation (OECD 2001).

Table 6
ENEM2002
Main Results

Performance x Associated factors
Average between Multiple Choice and Essay

Family wealth	Multiple Choice	Essay
up to 1 minimum wage (*)	**26.01**	**47.69**
1 to 2 m.w.	**28.28**	**50.54**
2 to 5 m.w.	**32.44**	**54.10**
5 to 10 m.w.	**38.15**	**57.57**
10 to 30 m.w.	**47.01**	**62.31**
30 to 50 m.w.	**51.80**	**64.54**
more than 50 m.w.	**52.67**	**64.34**

Table 7

ENEM2002

Main Results

Performance x Associated Factors

Mean scores for Multiple Choice and Essay

Mothers' education	Multiple Choice	Essay
No schooling	**26.36**	**47.28**
1st to 4th grade (primary education)	**29.16**	**51.26**
5th to 8th grade (primary education)	**31.53**	**53.15**
Incomplete Upper Secondary	**34.29**	**55.21**
Complete Upper Secondary	**37.51**	**57.50**
Incomplete Tertiary Education	**42.78**	**60.35**
Complete Tertiary Educatin	**47.94**	**62.76**
Post-Graduation	**48.60**	**63.58**

Table 8

ENEM2002

Main Results

Performance x Associated Factors

Mean scores for Multiple Choice and Essay

Fathers' education	Multiple Choice	Essay
No schooling	**26.46**	**47.75**
1st to 4th grade (primary education)	**29.50**	**51.64**
5th to 8th grade (primary education)	**32.15**	**53.69**
Incomplete Upper Secondary	**34.81**	**55.71**
Complete Upper Secondary	**37.47**	**57.39**
Incomplete Tertiary Education	**43.58**	**60.72**
Complete Tertiary Education	**48.48**	**63.06**
Post-Graduation	**51.80**	**64.98**

Private schools do better than state schools, both in the essay and the objective part of the test. Students attending private schools obtained an average of 63,03 for the essay and 47,22 for the objective test. The averages for state school students were 52,10 and 30,39 for the essay and the objective test, respectively (Table 6).

Table 9

Main Results

Performance x Associated factors

Mean scores for Multiple Choice and Essay

Upper Secondary Education Institutions	Multiple Choice	Essay
Public Institutions only	30.39	52.10
Private and Public Institutions	36.77	56.42
Private Institutions only	47.22	63.03

Another factor that deserves to be emphasised is the mitmatch between the age of students and the number of years it takes to complete basic education (the so-called *série escolar*). Participants that undertook basic education in 11 years without repeating any years obtained the best averages in the objective test and the essay: 38,85 and 54,57, respectively. 51% of all participants have a mismatched record for basic education, secondary education, or both. Because this problem is so widespread, it has a negative impact on average performance levels, both among those who studied in state schools and those attending private schools, as the results of PISA and SAEB also show. (INEP 2002b).

Table 10

ENEM2002

Main Results

Performance x Associated factors

Average between Multiple Choice and Essay

School	Completion		Average	
	Basic	Secondary Education	Multiple Choice	Essay
Public	8	3	33.5	55.8
	9	4	28.8	50.1
Private Institution	8	3	50.3	64.9
	9	4	37.3	56.5

The ENEM 2002 results match perfectly with the results of PISA, which is co-ordinated by the OECD in 32 countries and assesses education performance in a comparative perspective through a methodology that permits the evaluation of capacities and knowledge of 15 year olds independently of the number of years spent in basic education.

In Brazil, a representative sample of 4.893 students between the ages of 15 and 16 of the country's public and private education systems were tested. (Castro 2003). Students were submitted to a test involving a wide rage of tasks presented through different texts, ranging from the recovery of information to the demonstration of general comprehension, text interpretation and reflection on the content and characteristics of texts. The texts used included prose passages and documents such as lists, forms, graphics and diagrams.

The theoretical framework used for PISA is based on wide-ranging concept of literacy that is also the foundation of the educational philosophy of the PCN and of the curricular proposals of Brazilian states and municipalities. This concept of literacy is defined as the capacity of an individual to master writing and its use in various circumstances of daily life. According to the

PCN, the proficient reading and production of texts –of various kinds and covering the most varied topics– is the most significant indicator of good linguistic performance and literacy.

The results of PISA in Brazil confirm the reading and text producing difficulties of Brazilian students, a fact already noted by other Brazilian tests, not only ENEM as seen above, but also by the SAEB. These two national systems of evaluation have provided the state and municipal education secretaries with quite a detailed diagnosis of students' performance, making them a valuable instrument in Brazilian educational policy.

There are some issues that should be highlighted, although none of them minimise the fact that the precarious situation in terms of reading and text production in Brazilian schools.

First, the results of PISA should take the number of years spent in basic education (the *série cursada* variable) into account, as this appears to be a determining factor in performance in the Brazilian case. Only half of the population in the reference sample for Brazil was in secondary education, while practically all the 15 year olds in other OECD countries were already in secondary education and had undergone an average of 10 years of schooling. Thus, overlong school careers can be characterised as a typically Brazilian variable. For this reason, Brazil recalculated performance averages without taking this variable into account. It was possible to observe that the level of proficiency of 15 year olds in the correct school year is higher than the OECD ranking.

The impact of the socio-cultural level of students on reading proficiency is also important, although this is not the only variable that explains the results. Among the countries participating in PISA, Brazil has the lowest GDP per capita and the higher income distribution inequality.

In the Brazilian case, the most important factor that explains the student performance is doubtlessly the age-*série escolar* mismatch. In the three assessments mentioned – ENEM, SAEB and PISA – the longer the school career resulting from repeated years, the worse the performance of students, independently of the contents and series evaluated.

Conclusion: New Challenges

All of the above shows that assessing both basic and higher education in Brazil plays a central role in education system reform strategy and in raising levels of quality. Ignoring the contribution of evaluation processes in the monitoring of policies would be a step backwards of incommensurable magnitude. Until the mid-1990s there was not even an awareness of the dimension of the problem. The progress made to date has been greatly assisted by the new culture of evaluation that began to gain ground in the country from the 1990s onwards, although there are various other challenges to be addressed. The production of reliable, competent information that is committed to the public interest is an indispensable requirement if Brazil is to continue paving the way for the much-desired aim of quality education for all.

Statistics and planning should give technical support to make that project viable. Today, there is an enormous amount of reliable information about education in Brazil. Evaluation mechanisms like ENEM and SAAB are essential to ensure efficiency and equity in the education

system. The time has come to use them to shape school careers as a whole, so that basic education is viewed as a whole and not just as isolated phases or levels.

It is necessary to change the culture of the use of information on education so that public policy decisions do not just express the political will of the nucleus in power. The less that policy is fed by information, the more vulnerable it becomes to the pressure of political or corporative interests. It is also necessary to disseminate the Curricular Guidelines for Secondary Education geared to educate the individual; to guarantee basic preparation for the integration of the individual into the world of work.

Following progress with attaining universality, it is necessary to keep all students that are in basic education today in the educational system for at least a further three years, after they have concluded the eighth grade. It was only just before the start of 2000 that the country managed to make basic education universal. The minimum goal is now to avoid losing any students until they have completed the basic education provided for by the Constitution and the new LDB. We know that in contemporary societies it is also necessary to fix a minimum level of schooling for the population as a whole, independently of income or other factors.

Given the improvement in education numbers in Brazil over the last eight years, it is necessary to find out how far this is accompanied by improvements in the quality of education. Over the last few years, Brazil has had to deal with the issues of quantity and quality practically simultaneously. Suffice it to remember that for the population between 18 and 24 years of age, the number of enrolment in higher education independently of age is only 15%, and the liquid rate of enrolment in secondary education is no more than 33%. In 1998, total public spending on education reached 5,2% of GDP, well above that of Argentina, Mexico or South Korea. We are talking about a situation of exponential multiplication of needs or having to provide for nearly 60 million students distributed throughout the school system. This is a population that is practically the size of the French population and almost double the Argentine.

Addressing that challenge means promoting the capacity to read and understand texts. As the Pedagogical Report of the ENEM expressly recommends: “the results of ENEM 2002 show that among the multiple challenges that Brazilian schools face, being able to learn how to read is the most socially valued and required” (INEP 2002a, p.192). Any coherent policy must take note of this fact.

It is a great challenge to make teachers in various disciplines aware of the idea that the development of reading abilities is an aim to be achieved by schools in various curricular areas and that the specificities of each curricular area offers singular opportunities to perfect different teaching abilities. In this sense, it is up to schools to bring their students into contact with a wider variety of texts in a creative way, so that students become fluent readers and producers of the widest range of texts possible.

From now on, insofar as secondary education increasingly contributes to shape the professional destinies of young people, the reform of secondary education in Brazil marks the limits and possibilities of building students’ future professional paths, and concomitantly, the future of the country.

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