Functional Illiteracy in Brazil: A Visible Problem
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Abstract: According to the recent International Adult Literacy Survey, 8% of the Brazilian population between the ages of 15 and 64 is totally illiterate and 38% is considered functionally illiterate. This means that 46% of the population is unable to understand and use information that they need for daily activities either at work or in their social life. The implications of those limitations, the potential contributing factors to functional illiteracy, and comparisons to other countries facing similar challenges will be discussed in this presentation.

Key words: functional illiteracy – Brazilian illiterates – social demands – developing countries

1. Introduction
UNESCO considers the ongoing decade (2003-2012) the one where an emphasis will be put to diminish illiteracy in the whole world. In Brazil, the Ministry of Education is also engaged in this crusade. For this reason it is necessary reviewing the notion of functional illiteracy, since it is not enough alphabetizing: the goal must be teaching people to read and to write successfully. In addition, the focus is not only developing some reading and writing skills, but assuring how to deal with “the different social practices where written texts circulate” (Masagão, 2003, p. 2, translations into English by the author). This was the theoretical background of the research conducted by the International Adult Literacy Survey (IALS), (OECD, 1995, 1997, 2000).
First of all, we will present some versions of functional illiteracy, since it is not a universal concept: it varies over time and space.

The distinction between developed and undeveloped countries alters sometimes the concept, let alone that some authors confound causes with effects, or, some predictable variables with those with explanatory strength (Moreira & Oliveira, 2002, p. 1). The last mistake may be exemplified when people define functional illiteracy in relation to years of schooling. This is the case, for instance, of the criteria adopted by the Brazilian Institute of Statistical Geography (IBGE), which is in charge of the official Brazilian statistics: since 1990, people who attend school less than four years are considered functional illiterates. In Canada the floor is nine years, in the United States it is eight (what is called compulsory schooling), while in Spain it is six years. The same criteria was adopted by Bruening (1989): from zero up to four years of schooling, people are considered functional illiterates; from five years up to eight years, people are considered marginal literates, while from nine years on, people are considered functional literates.

These criteria do not correspond to facts. Although there is a positive correlation between years of schooling and reading and writing abilities, as it is demonstrated by research conducted by the Brazilian Instituto Paulo Montenegro associated to the ONG Educational Action (Ação Educativa), there are functional illiterates even among students who attend advanced courses.
This is also true if we analyze data obtained from the Program for International Student Assessment (PISA) (Lemke et al., 2001): even among students attending 8th grade, many of them obtained scores, which qualified them as functional illiterates.

“The Program for International Student Assessment (PISA) is a new system of international assessments that focus on 15-year-olds' capabilities in reading literacy, mathematics literacy, and science literacy. PISA also measures general or cross-curricular competencies such as learning strategies”... “average scores for specific reading processes, such as retrieving information, interpreting texts, and reflecting on texts, as well as a combined reading literacy average score are available for PISA 2000. PISA assumes that by the age of 15, young people have had a series of learning experiences, both in and out of school, that allow them to perform at particular levels in reading, mathematics and science literacy. The unique contribution of PISA lies in its focus on assessing students' knowledge and skills in reading, mathematics, and science in the context of everyday situations” (Lemke et al., 2001).

In 1995, the Organization for Economic Co-operation and Development (OECD) observed that there was no linearity in the correlation between level of schooling and level of reading and writing abilities. Another argument is that although those researches found a positive correlation between income level and level of reading and writing abilities, nobody would define a functional illiterate as a person of low income.

The Brazilian Instituto Paulo Montenegro associated to the ONG Educational Action (Ação Educativa) conducted three surveys on functional literacy in Brazil. The results obtained in 2001 showed that only among people who attended from 8th grade on, the percentage of subjects classified at levels 2 and 3 of alphabetizing surpassed 80%.

Data obtained by Nepomuceno (1990) for her Ph. D. dissertation proved that there was no difference between the behavior of the totally illiterate group and of the group who attended until 4th grade in a test of erasing the onset consonant of pseudo words (an ability only developed by those who have learnt the principles of alphabetic systems), as can be seen in Table 1 (erasing the initial vowel, also a syllable was a control test, showing that failure was not due to not understanding the task):

Table 1. Percent correct responses for each group in two deletion tests (standard deviations within brackets).

<table>
<thead>
<tr>
<th>DELETION CONSONANT</th>
<th>V0WEL</th>
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<tr>
<td></td>
<td>G1 %</td>
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<tr>
<td>Corrects</td>
<td>2.9</td>
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<tr>
<td>G1 illiterates (unschooled)</td>
<td></td>
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<tr>
<td>G2 semi-literates (no more than 4th grade)</td>
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<tr>
<td>G3 literates</td>
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The concept of functional illiterate therefore must be anchored on other criteria, namely, on the lack of reading and writing competence to overcome the social demands of daily life. This concept is quite new, if we go back to UNESCO 1958 definition: “A person is literate who can with understanding both read and write a short simple statement on his everyday life.

A person is illiterate who cannot with understanding both read and write a short simple statement on his everyday life” (UNESCO, 1958, p. 4).

Observe that until 1990, the Brazilian Institute of Statistical Geography’s (IBGE) data about literacy were obtained computing the answers to the following question: “Do you know reading and writing?”

Under the influence of scholars like Freire (1975) and Scribner & Cole (1981), the concept was enlarged, embracing reading and writing from the perspective of their functionality, the social context demands, in addition, aiming the continuity of learning.

2. Other concepts of functional illiteracy

Haddad (2003, p. 1) mentions two other concepts, the 1st, functional illiteracy being “at the middle way, between the total illiteracy and the full and versatile ability to read and write”, the 2nd, functional illiteracy as being “at the level of those skills restricted to the most rudimentary activities necessary for surviving in industrial societies”.

The 1st concept cannot be empirically tested, while the 2nd may be framed inside the neoliberat and pragmatic ideology, which is more worried with the material losses and deficits caused by functional illiteracy to their plants. The last concept is quite far away from Freire’s humanistic ideology of freedom, which is also known as developmental model for social change.

Those different concepts influence how alphabetizing programs should be planned. An example is the Experimental Program of Alphabetizing, under the auspices of UNESCO, which was run in eleven undeveloped countries.

It is clear in the following Botelho’s text (2003, p. 1): “The productivity decay caused by basic skills deficiency is translated into losses of US$6 billions all over the world each year. Why? Because people do not understand danger warnings, hygiene and working security instructions, orientations towards the productive process, procedures of total quality thus neglecting business organization values.”

This is also the employers’ organization approach, as can be inferred from the quotation: “A 1997 Organization for Economic Cooperation and Development report bluntly told Canadians that our future competitiveness depends on raising literacy and learning levels in our society. Close to 33% of Canadian employers complain of training problems because of functionally illiterate staff (Moore 2000, p. 1).

We do not deny the need of employers investing on literacy campaigns, but the final goal cannot be only lowering economic losses, otherwise the most important one, which is the citizen’s insertion in society, will not be reached.

Mariño (1992) asserts that “a pure analphabet is the one who does not know reading and writing, while the functional analphabet is one who although had learnt it, for many reasons, had forgotten it.” This definition presupposes that sometime the person could read and write, which is contradicted by data: functional alphabets, usually, could never show some competence in reading and writing.
Moreira (2000, p. 1) includes in the label functional analphabetism, which he calls “imperfect alphabeticizing”, either people totally analfabet or people apparently alphabetized, the level of whom is insufficient for performing their basic activities in modern societies. This concept may be useful in societies where everybody attend school, which is not the case in Brazil, since, unfortunately, there is a lot of people who never found a place in the classroom.

The distinction is important, because it evidences the failure of the Brazilian educational system: although having attended school for many years, some students are not able to follow a simple instruction such as pairing a written word with one included in a command, as the following example taken from Moreira (2000) shows.

His sample was constituted by 1000 habitants living in Sao Paulo city, aged 15 up to 54 years old (48,8% men, 51,2% women). Among the population, 300 (30%) were unable to signal the answer in the text bellow to the following question: “How many years of living expectation are reduced for a moderate smoker?”

TEXT

DON’T SMOKE

DON’T RISK YOUR HEALTH

Tobacco smoke is a very dangerous substance: it contains more than 200 known poisons.

Each time a smoker lights a cigarette, he is hurting himself.

If he smokes two packets a day, he slows down very much his expectancy of living.

Even the moderate smokers have this expectancy reduced to 4 years.

As you can observe, it would be enough pairing the word “years” from the question to the same word in the text, since it appears only once and immediately after the solicited number.

This behavior indicates that the subject could not recognize a written simple word (disyllabic in Portuguese, with four letters). A qualitative analysis computing how many subjects signaled the number 200 would demonstrate blind guessing answers.

Some definition emphasizes the functional aspect such as More’s one (2000): “functionally illiterate, which means that they may be able to read road signs, write their name, and perform other simple reading and writing tasks, but beyond that are pretty helpless in the world of the written word” (p. 1).

In addition, specific reading illiteracy may be defined as the inability “to apply different reading processes to a wide range of reading materials, such as the kinds of forms they receive from their governments, the kinds of articles they read in their local newspapers, the kinds of manuals they read for work or school, or the kinds of books or magazines they read for entertainment” (Lemke at al.2001).
Summarizing what was discussed in this section, we may conclude that the concept of functional illiterate varies over time, including the distinction between developed and undeveloped countries.

3. Some methodology questions and results
In order to classify and compute the number of functional analphabets, three strategies have been adopted (Becker Soares, 1992, p. 12): demographic census, educational statistics and surveys (the last ones, usually, home interviews).

An example of demographic census is the one run by the Brazilian Institute of Statistical Geography (IBGE) in 1991, which presented 20% of illiterates. More recent data reveal that the percentage is lowering, although the absolute number is growing. For instance, in Sao Paulo city 7.52% corresponded to 518,268 illiterates, surpassing many states altogether in absolute numbers. If the criteria were the level of schooling of the family responsible and the same floor (8 years) adopted in the United States, the percentage would reach 57%.

Surveys get information and evaluate levels and types of skills in different contexts of use, applying tests with different degrees of linguistic complexity, so they are more reliable. The example of survey is the research carried on and reported by the Program for International Student Assessment (PISA) 2000. Another is the one carried on by the National Indicator of Functional Analphabetism (INAF*).

According to INAF recent figures, 8% of the Brazilian population between 15 and 64 years old are totally illiterate and 38% are considered functionally illiterate. This means that 46% of this population are unable of understanding and using the information they need for daily activities either at work or social life: They have never learned the reading skills necessary even to verify a bill or bus schedules, leaving alone the need to face the explosion of information produced by new technologies: in consequence, they do not meet the minimal demands of contemporary societies.

Contrary to the results of the International Adult Literacy Survey conducted by Organization for Economic Co-operation and Development (OECD, 1997) on the reading and writing capacities of adults (1994-1995), women were not more affected by functional illiteracy than men: they scored 4 up to 8 points more than men when they underwent four years of schooling. Among the population who underwent eight or ten years of schooling, the difference in favor of women was 11 points.

The data obtained by the National Indicator of Functional Analphabetism (INAF) confirm the report Literacy Skills for the World of Tomorrow, based on the Program for International Student Assessment (PISA) (Lemke et al., 2001) that focused on 15-year-olds' capabilities in reading literacy, mathematics literacy, and science literacy. In its first cycle, PISA 2000 focused mainly in reading literacy.

Although average school completion in Brazil have expanded from under 50% in 1990 to over 70 in 2000, in the Literacy Skills for the World of Tomorrow reports, Brazil, Macedonia, Albany, Indonesia and Peru had the lowest percentage in reading literacy tests. There are socioeconomic and family conditions combined with educational ones, which cause such dramatic effects but better results certainly will be obtained with a national educational policy based on building teacher capacity and expertise in reading: observe that in the same survey, Brazil was only surpassed by Peru and Indonesia in the ranking of the countries which applied the lower incomes to initial education up to 15 years old.

The same is true even in developed countries, where the provinces, which show the lowest performance in reading abilities, are the ones which also apply the lowest incomes in
education, as it is reported by Moore (2002, p. 1): “50 percent of adult Nova Scotians are functionally illiterate”, correspondingly, it “spends less per capita on education than other provinces”.

Observe that although Canada is one of the richest countries in the world, the figures are not so optimistic in the whole country: “According to a Statistics Canada report, the general Canadian illiteracy rate is about 46%-48% per cent. ‘More than 10 million Canadians can’t read or write well enough to succeed in their day-to-day lives, let alone in our current information age,’ says Christine Featherstone, Executive Director of ABC CANADA Literacy Foundation” (apud Moore, op. cit., p. 1).

In their report “Functional illiteracy: the invisible problem”, read at the Conference on Education for all in Europe and North America, which took place in Warsaw in February 2000, the open paragraph affirms: “Today in the world’s developed countries, some men and women lead daily lives resembling an obstacle course because they have either lost or never acquired the reading and writing skills that formed part of their basic education”. In this report, it was estimated that a quarter of the population of the developed countries “is incapable of understanding and using the information contained in brochures, information bulletins, train schedules, road maps and simple instructions for household appliances or pharmaceuticals”, confirming the International Adult Literacy Survey that those people are even petrified by the prospect of future change or new technologies.

4. Final remarks

After discussing many different definitions of functional illiterate, we propose the following one:

Functional illiterate is the individual who, although attended school, cannot understand the written texts which circulate at home, where he/she works or in different social contexts where he/she behaves, and who cannot write texts he/she needs in his daily life.

The following aspects are relevant in this definition:

Reading competence must be viewed as the ability not only to decode the written text, but also to understand it, interpreting it and registering the more pertinent information in his/her cognitive memory. Interpreting means thinking critically and being able to make inferences, crossing different semiotic systems. Registering means the improvement and deepening of cognitive schemes.

Reading competence also covers being able of using computers: we suggest the neologism cyber-functional illiterate for covering the large amount of people who, although typing the keyboard daily, only have the skill of typing mechanically: they do not read or write the texts. They are not far away from Chaplin’s character, who got going with the same mechanical movement, in the film Modern Times.

Although the estimates of functional illiterates in developed countries are sometimes very high, they are surpassed by the 3rd world countries, such is the case of Brazil. Data presented in this paper show the enormous and defying problem we have to face in Brazil.

*Indicador Nacional de Analfabetismo Funcional (National Indicator of Functional Analphabetism)
Bibliographic References


http://www.cedes.unicamp.br/pesquisa/artigos/HADDAD/cap01.html


