A Literacy Integral Definition

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INTRODUCTION

Due to the lack of a unique definition of literacy and the need for redefining this conception in a context characterized by the changes generated by the inclusion of new technologies in all aspects of the society, this explicative research article is oriented toward proposing a definition of literacy from an integral conception which is based on three main kinds of literacy: functional, informational and ethical.

This integral conception must orient the basic contents in the school curricula in all current educational models, mainly at the university level. We consider that knowledge is unique; it should not be divided into pieces. Therefore, it is necessary to integrate the new technologies, from this new paradigm, in the contents of the school curricula.

The present article compiles some general considerations about literacy, proposes a new definition of literacy from an integral conception, as well as each one of its components.

BACKGROUND

It is undeniable that info technology has an influence on human issues. It is also true that this influence has become more intense since the end of the 20th century with the rise of the Internet, when several changes appeared in regard to information treatment and interpersonal relationships by offering communication facilities never observed before.

Two breakthrough inventions formed the information society's foundation: computers and telecommunications, which play roles similar to those that the steam engine and electricity played during the industrial revolution (Cellary, 2003). In this sense, the Internet and the current scientific and technological development are the results of society's evolution which has gone through dedifferentiated and clearly defined stages: agrarian society, industrial society, and currently, *information society*.

Cellary (2003) explains in a very simple way the form in which both inventions have a notorious influence on society. On one hand, he shows that although computers can only capture a fraction of their programmers' real intelligence, computers behave like people in that they make correct decisions based on the knowledge encapsulated in the programs they run. On the other hand, telecommunications ensure common access to all computers connected to the Internet, giving the entire society the chance to share and spread information.

This information revolution tends to deprive humans of their decision-making monopoly, given their tireless speed and mathematical precision; computers will always outdo humans in performing any intellectual activity that can be explicitly defined (Cellary, 2003) and the facility for sharing results through the Internet.

This is consistent with the ideas of Gutiérrez (2003) who affirms that this convergence of languages and technologies and the arising of cyberspace as a relational environment promote three important changes: 1) new kinds of predominant documents, 2) new forms of communication, and 3) new education and communication environments.

Additionally, the main features defining the *information society,* according to Castells (2001) are firstly, an informational and technological revolution as basis. Secondly, a socioeconomic reorganization process known as globalization. Thirdly, a change in organization processes (not less deep than the previous one) as the transition from vertical organizations to Web organizations. Gutiérrez (2003) adds that these three factors and the interaction among them, generate important social and cultural changes.

However, the process has not produced purely benefits. Even when science, and in particular technology, has been produced by social progress, and both have undeniably offered great contributions in different areas: health, communication, education, culture, socio-politics, among others, inconveniences have also been produced.

Nowadays, it is necessary to educate citizens from a new perspective: the new citizens must be literate in the use of new technologies, but at the same time they must have a critical thinking, a reflexive and participative sense and be committed to society in order to be able to consciously and responsibly use sources. In other words, they must be integrally literate.

INTEGRAL LITERACY

Through the decades of 1980s and 1990s, the definitions of literacy have been widened to take into account the challenges of globalization, including the repercussions of the new technologies, modern media and the rise of the economies of knowledge (UNESCO, 2004). The definition of literacy employed in the Education for All 2000 Assessment is the following: "Literacy is the ability to read and write with understanding a simple statement related to one's daily life. It involves a continuum of reading and writing skills, and often includes also basic arithmetic skills (numeracy)" (UNESCO, 2004, pp. 12-13).

A proposed operational definition was formulated during an international expert meeting in June 2003 at UNESCO. It states: "Literacy is the ability to identify, understand, interpret, create, communicate and compute, using printed and written materials associated with varying contexts. Literacy involves a continuum of learning in enabling individuals to achieve their goals, to develop their knowledge and potential, and to participate fully in their community and wider society" (UNESCO, 2004, pp. 13).

Other authors have defined literacy from different perspectives. Bawden (2001) suggests that the first and simplest meaning implies only the ability to read and write. The second certainly implies this ability, but also requires something beyond it. Gilster (1997, cited in Badwen 2001) advises that the concept of literacy goes beyond simply being able to read; it has always meant the ability to read with meaning, and to understand. It is the fundamental act of cognition.

Similarly, as Clifford (1984, cited in Bawden, 2001) suggests, expert opinion has abandoned the dichotomous framework, of literate or illiterate, in favor of the conception of literacy as a continuum; at one end lies some ability to reproduce letter combinations. At the other end, lie such language learning behaviors as logical thinking, higher order cognitive skills, and reasoning.

Bawden (2001) indicates that for most of the centuries the term has been in use, it has meant being well educated, well-read, versed in literature and "letters" (the "learned" aspect of the definitions quoted at the start). More recently, it has taken on a more prosaic meaning of being able to make effective use of *information*, gained from written material.

However, all authors cited agree in the nonexistence of a unique concept of literacy and express that this concept must be redefined in a context of the changes generated by the introduction of new technologies in all areas of society.

In this sense, the current technological revolution has favored the existence of a new definition of literacy that goes beyond the abilities to use computers and the Internet, and to create, save, broadcast or download information. For this reason, the most appropriate notion in the 21st century is the one related to "integral literacy" based on three main aspects: functional, informational and ethical literacy.

Integral Literacy includes not only the basic tools that an individual must have an individual like reading, writing and calculation; but also the socio-affective skills in combination with the new technologies used, in the search of changes of attitudes to construct a more humane and free society.

Functional Literacy

"Literacy lies at the heart of UNESCO's concerns and makes up an essential part of its mandate, being entwined with the right to education set forth in the Universal Declaration of Human Rights of 1948. These concerns have to do with promoting the meaningful acquisition and application of literacy in laying the basis for positive social transformation, justice, and personal and collective freedom. Despite tremendous progress made over the past 55 years, universal literacy remains a major challenge for both developing and developed countries in terms of commitment and action. There are over 800 million illiterate adults in today's world, a figure projected to remain unchanged in 2015 if current trends continue unabated" (UNESCO, 2004, pp. 1).

The term "Functional literacy" has been understood as the ability to read, write and to perform basic mathematical calculations. This term was originally introduced by UNESCO (1986), which states:

A person is literate who can with understanding both read and write a short simple sentence on his everyday life (...) A person is functionally literate who can engage in all those activities in which literacy is required for effective functioning in his group and community and also for enabling him to continue to use reading, writing and calculation for his own and the community's development. (UNESCO, 1986, p. 4)

Functional literacy is a matter to be developed by initial education; however, this is not totally achieved because, as Schleicher and Tamassia (2002) indicates, the students enrolled in the high school have very low levels of competence for written expression and reading comprehension. This problem is observed in developed and developing countries, getting worst in the latter, where indexes of reading are below OECD reading abilities statistical averages.

Therefore, it is considered that functional literacy as well as ethical and informational literacy also become a concern for higher education. In this sense, we consider that study plans at higher education must include subjects for reading and writing that guide students in the use of strategies, working on topics and texts of their interest, in order to overcome the limitations generated by this reality.

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