

LITERACY AS A PREREQUISITE FOR WORLD PEACE

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Abstract

Literacy, the ability to handle written text in its myriad modern manifestations in an effective and empowering manner, is critical to the development and well-being of all of the residents of this planet. It permits intercultural communication over distance, raises awareness of and respect for the needs and goals of other groups, expands human understanding, and is a precondition for meaningful participation in democratic processes. It also serves as the most efficient means of conserving human history and enhancing cultural identity and distinctiveness. The fact that so many individuals, particularly females, have been denied full literacy creates great disparities among nations and means that only certain groups benefit from globalization and information technology. This paper examines the state of literacy and “literacies” in the world today, isolates the variables that have led to the “literacy gap” that currently exists, and points to the need for strong literacy programs and policies in all nations, in conjunction with peace education from the early grades on. It also describes how schools in Puerto Rico can help to address the special literacy needs of adults, immigrants, and differently-abled citizens and thus increase solidarity and peace among the residents of this island.

1.0 Introduction

Literacy is commonly and simplistically perceived of as learning to read and write; however, as with many terms that appear obvious at first glance, there is considerable disagreement among scholars as to what it means to be literate (Hull & Hernández, 2010). Currently, there are at least four distinct scholarly conceptions of literacy (listed in chronological order of appearance, although all exist simultaneously today): *literacy as a discrete set of skills*; *literacy as situated practice*; *literacy as a learning process*; and *literacy as text* (EFA Global Monitoring Report Team, 2005).

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Literacy as a discrete set of skills refers to the cognitive skills of reading and writing conceived of as decontextualized and independent of the learner's social background. Within this perspective, there has been sustained controversy between those who favor the "phonetic" approach (popularly termed "phonics") which stresses techniques such as "sounding out" words, and those who favor the "semantic" approach (popularly termed "reading for meaning" or "whole language") which pays special attention to the holistic relationships among phonetics, word recognition, spelling, and vocabulary. Recent research has focused on the way the brain processes reading patterns and on techniques such as phonological awareness training and timed reading tasks (Abadzi, 2003). The view of literacy as a bundle of discrete skills also includes *numeracy*, the capacity to interpret and communicate via language different types of quantitative and spatial information in contextually appropriate ways (Gal, 2000). The skills model was very popular until the 1960s and 1970s when studies of *functional illiteracy* pointed to the importance of context in literacy acquisition and use, and revealed that no one set of literacy skills applied to all situations and communities.

Literacy as situated practice emerged from anthropological observations of the variable enactment of literacy in different cultures. The *New Literacy Studies* of the 1980s and 1990s (e.g., Scribner & Cole, 1981; Heath, 1983; Canieso-Doronila, 1996; Gee, 1999) viewed literacy as a culturally-mediated practice that was highly dependent upon social factors such as class and race, and upon the nature of the interactional setting. As Hull & Hernández (2010, p. 329) explained it: "[Literacy] does not operate in a decontextualized manner outside fields of power, and can itself be implicated in the maintenance of social and political inequalities as well as turned toward the egalitarian."

Practitioners of this approach carried out intensive ethnographic fieldwork to document literacy events and practices. They discovered that individuals labelled as “illiterate” actually utilized literacy practices for specific purposes and relied on effective oral practices to accomplish other functions. For example, Heath’s 1983 ethnographic study of social class and racial differences in bedtime story-telling routines in a rural South Carolina town revealed interesting contrasts. Middle class white parents read stories and then asked teacher-like questions about the stories, while working class white parents merely read the stories with little discussion. In contrast, working class Black parents relied primarily on oral bedtime stories. All three groups accomplished their purpose, but the middle class white children were exposed to language practices similar to those they would encounter in school, thus giving them an advantage in early standard language literacy acquisition.

Literacy as a learning process is an approach based upon the learning theories of Dewey and Piaget, which were utilized by constructivist educators and developed more fully in the work on *collaborative learning* and *communities of practice* (Wenger, 2009). Its most famous and influential proponent was the Brazilian adult literacy educator, Paulo Freire, whose *pedagogy of the oppressed* stressed the active engagement of the learner with written texts and with “reading the world,” in other words, questioning and reflecting on social experience in order to raise consciousness about the contradictions of society, act upon them, and transform society (Freire & Macedo, 1987; Freire, 1995). *Critical literacy*, as this process is now termed, has been utilized fruitfully with oppressed or marginalized groups in Latin America and Africa. We can see its historical roots in the highly successful Cuban and Nicaraguan literacy

campaigns of 1961 and 1980, respectively (see Kozol, 1978; Murphy, 2013; Hirshon, 1978; Arnove, 1987; Hanemann, 2005). Its tenets were also foreshadowed by the Persepolis Declaration delivered at the 1975 International Symposium for Literacy held in Iran (Bataille, 1976).

Literacy as text draws strongly from the theories of French philosopher Michel Foucault (Foucault, 1972) and is centered on the *critical analysis of discourse*, focusing upon the topic, genre, modalities, linguistic complexity, and overt or covert ideological content. It views literacy as a communicative and political practice that constructs, legitimizes, and reproduces social power structures (Fairclough, 1991; Gee, 1999). It questions the adequacy and relevance of traditional skills-based literacy instruction in schools and adult programs. Some studies in this vein like Collins and Blot (2003) reveal how the hegemony of the literate standard is embedded in colonialism, neo-liberalism, and institutionally-anchored power relations.

The United Nations Educational, Scientific, and Cultural Organization (UNESCO) has utilized various definitions of literacy over the years. In 1958, it stated that: “a literate person is one who can with understanding, both read and write a short simple statement on his or her everyday life” (UNESCO, 1958). In 1978, UNESCO adopted the following more stringent definition of functional literacy: “A person is functionally literate who can engage in all those activities in which literacy is required for effective functioning of 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, 1978).

For the purposes of this presentation, I will define literacy as *the ability to handle written text in its myriad modern manifestations in an effective and empowering manner*. This includes actively engaging traditional academic and literary documents and books, plus everyday genres like grocery lists, love letters, street signs, leases, traffic tickets, song lyrics, movie listings, and product labels, as well as technological genres like text messages, emails, online ads, and websites. The different multimodal genres of literacy today are heavily dependent on the economic development and opportunities available in a given society or subgroup of that society.

Literacy is critical to the development and well-being of all of the residents of this planet because it permits intercultural communication over distance, raises awareness of and respect for the needs and goals of other groups, expands human understanding, and is a precondition for meaningful participation in democratic processes (Bokova, 2011). It also serves as the most efficient means of conserving human history and enhancing cultural identity and distinctiveness.

2.0 Literacy and “literacies”

Literacy was originally viewed as a fixed set of cognitive skills that could be learned by anyone, regardless of their socioeconomic background or condition. Today there is recognition that literacy comes in many forms and may vary even in the life of a single individual. As a result, the term *literacies* is now in vogue, along with the terms *new literacies*, *multiliteracies*, *digital literacies*, and *21st century literacies* (Coiro, Knobel, Lankshear, & Leu, 2008). There are also the terms *biliteracy* and *interliteracy* to describe how bilingual children actively construct literacy from two language systems,

sometimes keeping them apart and sometimes mixing them creatively (Reyes & Moll, 2010).

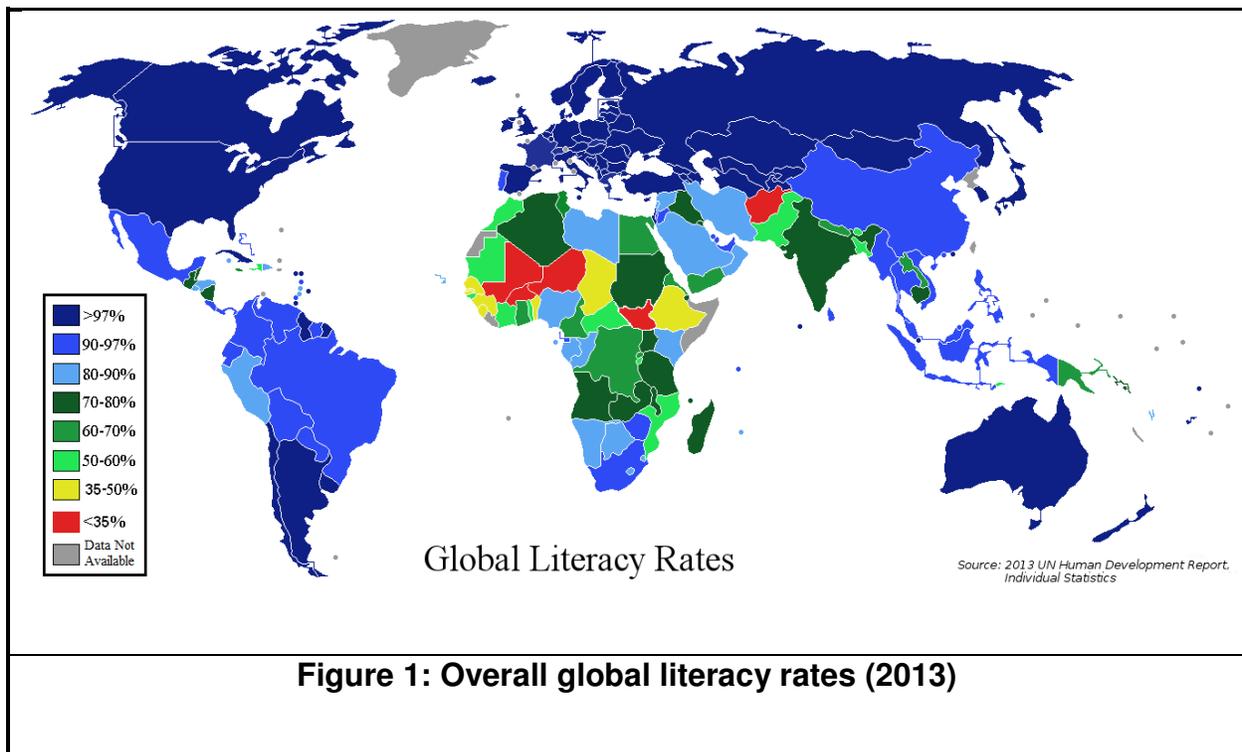
In 2002, the U.N. declared the United Nations Literacy Decade and affirmed the crucial nature of literacy in enabling individuals to confront life challenges and participate effectively in the social and economic activity of the 21st century. The National Council of Teachers of English went even further in 2013 and stated that successful participants in 21st century global society must master multiple literacies in order to respond flexibly to technological changes. Specifically, they need to:

- Develop proficiency and fluency with the tools of technology;
- Build intentional cross-cultural connections and relationships with others to pose and solve problems collaboratively and strengthen independent thought;
- Design and share information for global communities to meet a variety of purposes;
- Manage, analyze, and synthesize multiple streams of simultaneous information;
- Create, critique, analyze, and evaluate multimedia texts;
- Attend to the ethical responsibilities required by these complex environments

Unfortunately, this list has a strong “first World” bias to it. There are many communities worldwide that are not materially able to meet these 21st century literacy requirements. In the next section, we will take a look at the existing “literacy gap.”

3.0 Variables involved in “literacy gap”

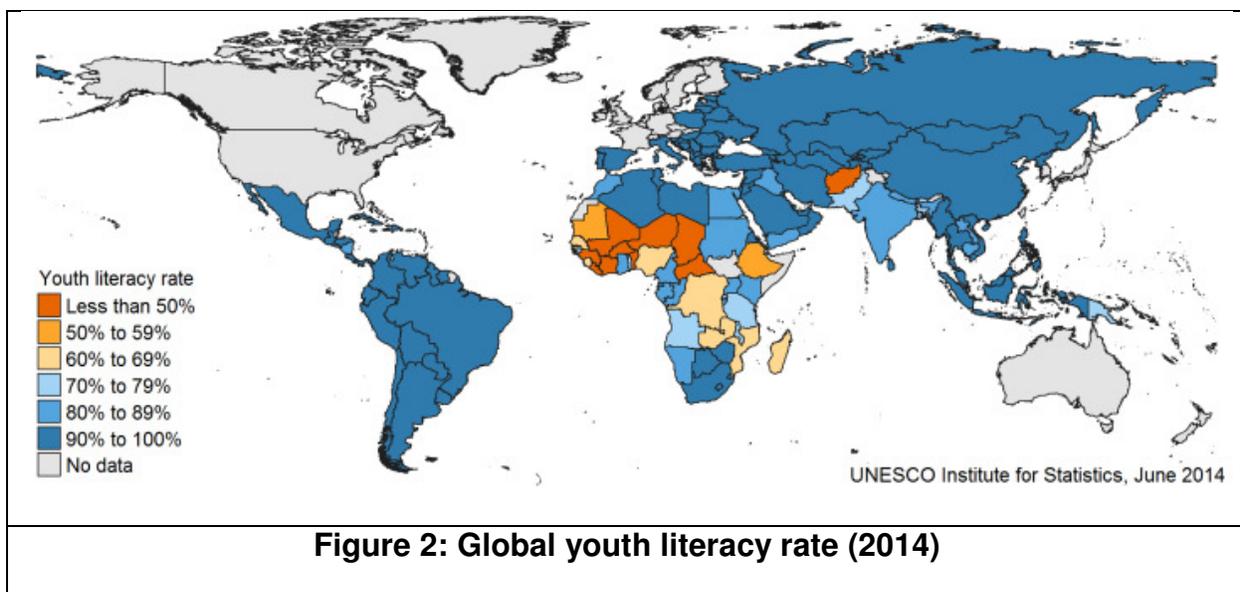
It should come as no surprise that literacy is not evenly distributed across the world (see Figure 1 below). Many individuals, particularly females, oppressed and marginalized ethnic minority groups, impoverished populations, and differently abled individuals have historically been denied full literacy. The lack of access to universal literacy has created great disparities among nations and has led to a situation in which only certain groups benefit from globalization and information technology.



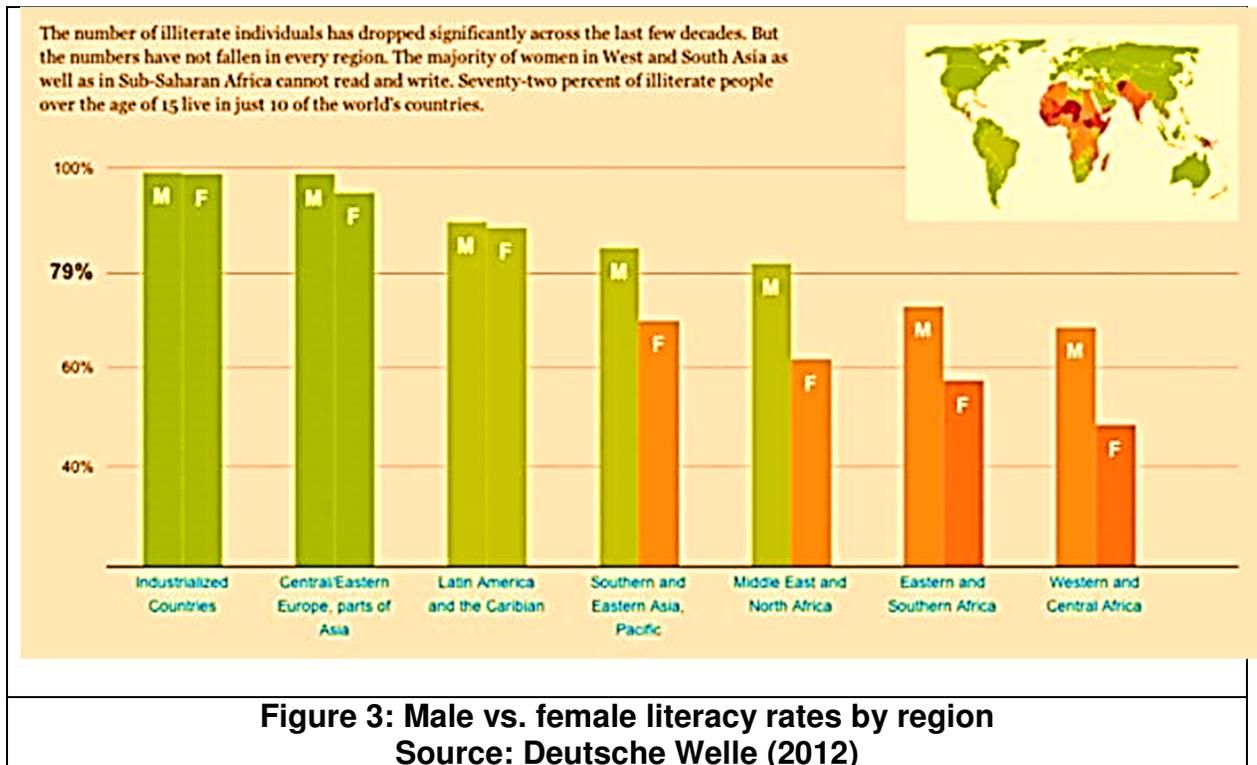
Among the many factors which contribute to the “literacy gap” by disrupting the educational process and societal stability are emergency and conflict situations (natural disasters, genocidal campaigns, war), health issues (HIV/AIDS, epidemics like Ebola,

famine), mass migrations, and certain cultural practices that may favor males over females (child marriage, education only of boys, cloistering of females, etc.).

Age is a major variable. Typically elderly adults have the most limited literacy skills; however, today with so many disrupted communities, childhood education is not a given. Figure 2 illustrates the areas of the world in which young people have limited literacy skills. Of particular concern are countries in West and Central Africa, Ethiopia, Madagascar, and Afghanistan.



Gender is still another crucial variable. Figure 3 shows us the global gender divide distributed by region.²



When we see the depressing difference between women and men's literacy rates globally, we naturally ask ourselves why this exists. The answer is complex but rooted in longstanding patriarchal ideologies that place men above women in worth and maintain male hegemony across cultures. One way this is accomplished is by tying women down with many children.

² The table was downloaded from <http://visualdata.dw.com/specials/bildung/en/literacy-global.html>.

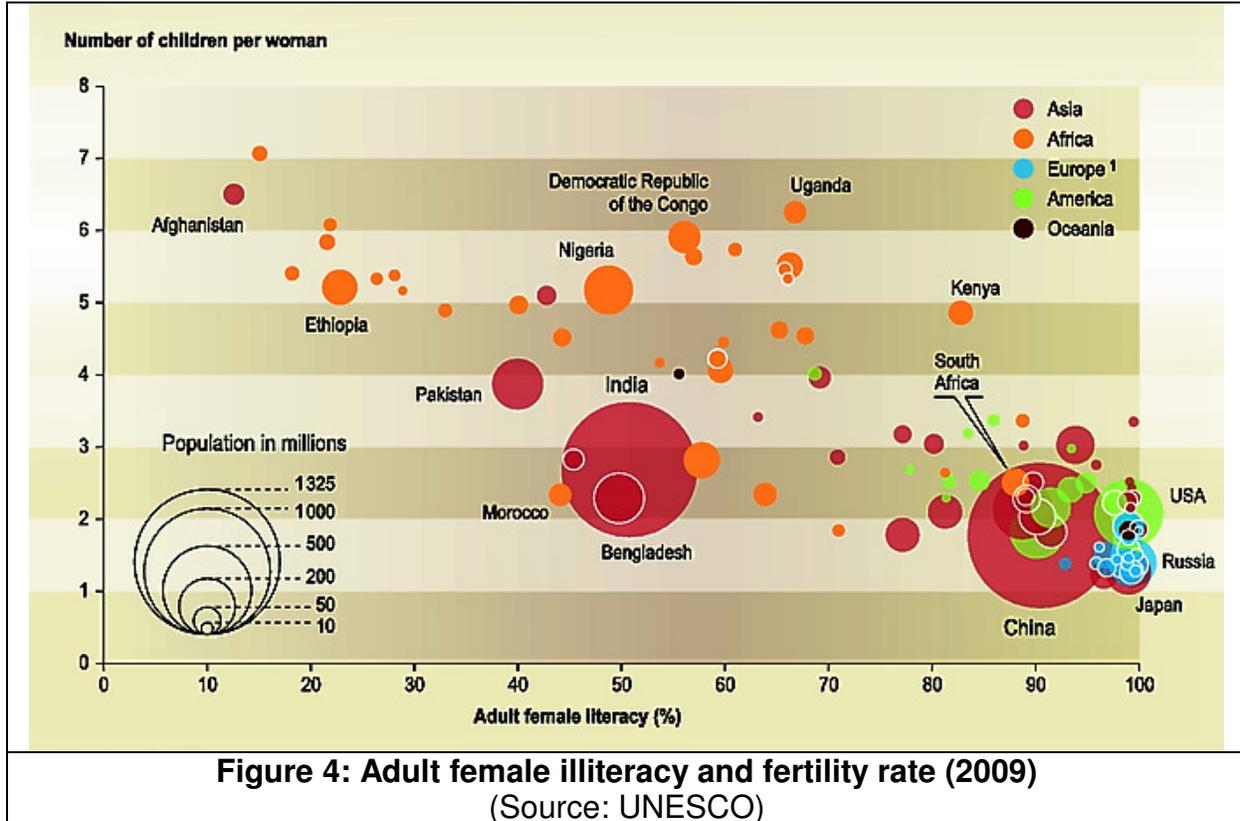


Figure 4 demonstrates the strong correlation between fertility (Y-axis) and literacy (X-axis) among adult females worldwide.³ Countries are represented by circles which are sized to be proportional to their national populations. Each circle is colored according to continent. The higher the circles are located on the Y-axis, the larger the families. The higher the circles are located on the X-axis, the more literate the mothers.

A cursory glance at the map reveals that the more children a woman has, the less likely she is to be literate. Conversely, the more educated the woman is, the fewer offspring. We can observe a clustering of industrialized nations (Europe, Russia, the

³The graph appeared on the European Environment Agency website at:
<http://www.eea.europa.eu/data-and-maps/figures/correlation-between-fertility-and-female-education>

U.S., China, Japan, South Africa) in the lower right-hand side of the graph, indicating small families and high literacy levels. Many African and Asian nations (e.g., Nigeria, the Congo, Uganda, India, Pakistan, Bangladesh) occupy the middle of the graph, but Ethiopia, several small African nations, and Afghanistan have the largest families and the lowest levels of adult female literacy.

Moreover, female illiteracy is also linked to high rates of infant mortality. The more literate the woman, the more access she has to health information and the more informed reproductive and healthcare decisions she makes for herself and her children, thus maximizing the lifespan of her offspring (Saurabh, Sarkar, & Pandey, 2013). As an old African proverb says, “When you educate a man, you educate an individual; when you educate a woman, you educate a nation.” Political correctness aside, this accurately reflects the situation in much of the world where women are still primarily responsible for the raising of children.

4.0 Need for literacy and peace education

The need for literacy is tightly bound to the need for peace education. The United Nations, established in 1945 in order to prevent future wars, explicitly supports both literacy and peace education as essential to the survival and progress of humanity. The Preamble to the U. N. Charter gives as its mission the reaffirmation of faith in the “dignity and worth of the human person” and the establishment of “conditions under which justice and respect” for international obligations can be maintained (United Nations, 1945). The Preamble to the 1945 UNESCO Constitution begins by noting that since the desire to wage war stems from the minds of individuals, the defenses against war must also be erected in the minds of individuals. This implies that education is

essential to preventing warfare and interpersonal violence. This is reaffirmed in Article 26 of the Universal Declaration of Human Rights (1948) which asserts that: “Education shall be directed ... to the strengthening of respect for human rights and fundamental freedoms. It shall promote understanding, tolerance and friendship ... and shall further the activities of the United Nations for the maintenance of peace.”

The 1959 Declaration of the Rights of the Child affirms a child’s right to an education aimed at developing a sense of moral and social responsibility, and the 1989 Convention on the Rights of the Child specifies that education is to prepare the child for “responsible life in a free society, in the spirit of understanding, peace, tolerance, equality of the sexes, and friendship among all peoples, ethnic, national and religious groups and persons of indigenous origin” (Article 29.1 d). To this end, in 1996, peace education was explicitly incorporated into the anti-war agenda of the United Nations International Children’s Emergency Fund (UNICEF).

What exactly is peace education, and what does it have to do with literacy? Shapiro (2015) defines *peace education* as “a holistic process of development of human potential to coexist in a less violent manner (p. 1). According to Paige (2008), it refers to educational programs that:

1. Encourage a commitment to peace;
2. Enhance the confidence of the student as an agent of peace;
3. Inform the student about the consequences of war and social injustice;
4. Inform the student about the value of peace and justice;
5. Encourage the student to love peace and strive for a peaceful future; and
6. Encourage the student to care about the welfare of others.

Thus peace education involves the development of healthy moral values, positive attitudes toward others, productive skills for building peace, and behaviors that foster harmony with oneself, with others, and with the natural environment. It may take various forms, including conflict resolution training (Conflict Resolution Network, 2008), instruction in democratic principles and practices, human rights orientation, and worldview transformation. Topics commonly treated in peace education include: gender equality, religious tolerance, and intercultural understanding. Issues like bullying, sexual harassment, and domestic violence can also be part of a peace education curriculum.

Jakar and Milofsky (2016) define *peacebuilding* as “a process of establishing peaceful relationships and building institutions that can manage conflict without resorting to violence” (p. 44). They describe how the English language classroom can provide a space for young people to discuss peace and conflict, develop critical thinking, learn conflict management skills, and participate actively in the process of peacebuilding. Their basic argument, derived from their work in Israel, is one that we can apply to our situation here in Puerto Rico. In short, by means of a curriculum that addresses conflict and seeks to build peace, students can improve their oral and written skills in English.

While they offer no fixed recipe for teaching peacebuilding, the authors suggest that teachers should honor diversity and emphasize multiple perspectives, teach dialog (not debating) skills, engage students in creative interactive tasks (e.g., role play, small group work, experiential activities, etc.), share real life stories that tap into student empathy, and alleviate feelings of despair by showing students how they can empower themselves by finding peaceful solutions to conflicts. Milofsky (2011) presents many excellent techniques in her peacebuilding toolkit for educators.

International approaches to peacebuilding used by educators in areas plagued by communal violence (e.g. Israel, South Africa, Ireland, Bosnia) include the following teaching strategies (Shapiro, 2002):

- visits to communities of opposing groups in order to deconstruct their otherness
- development of text books to help students understand the standpoint of the other
- field trips to places that evoke painful memories in the 'enemy' community.
- shared art, music and dance projects
- placement of young people in family homes of the other community
- joint political projects to foment socially just situations and contexts
- celebrations of the other's holiday festivals and celebrations.

Puerto Rico has serious problems that disrupt the peace of the society and the individual. Collective anxiety and discord is at an all-time high for multiple reasons. There is street violence linked to drug sales (48% of all homicides are drug-related), domestic violence⁴ stemming from economic frustration and the inability of couples to successfully negotiate changing gender roles, hostility toward Dominicans and other immigrants (González-Espada, 2005), discrimination and hate crimes directed at the LGBTI community⁵, sexual harassment in the workplace⁶ (Lugo Fournier, 20xx), and bullying in schools as young children act out the intolerance and domination scenarios

⁴Police statistics indicate that during 2015, 83% of the 10,972 domestic violence cases on the island involved men abusing women, while only 17% involved women abusing men.

<http://policia.pr.gov/estadisticas-de-violencia-domestica/>

⁵Amnesty International carried out a study of the treatment of the LGBTI community by the police of Puerto Rico in February of 2016 and found that the reforms approved in 2013 have still not taken effect, and judging by their actions, many officers still appear to be unaware of the many legal protections in force that apply to this community (Violentan derechos, 2016).

⁶Annually in Puerto Rico, more than 500 cases of sexual discrimination are filed with the Antidiscrimination Unit. Ninety-three percent are filed by women, and about a third involve sexual harassment in the workplace (Lugo Fournier, 20xx).

they see modeled in the media and even in their own families (Bauzá, 2013; Convivencia, 2014; Matos, 2015).⁷ Much is the by-product of ignorance about “others” due to limited formal education exacerbated by poor communication skills which lead individuals to favor violent action rather than discourse and negotiation.

Table 1 lists in descending order of frequency the official police statistics for homicide in Puerto Rico so far in 2016. Even a quick glance makes it clear that our island is not at peace by any stretch of the imagination. Drug trafficking accounts for nearly half of the homicides in Puerto Rico; however, a great many of the cases listed under vengeance and grudges are also drug-related. A recent article in *El Nuevo Día* (Cortés Chico, 2016) reports that about 66% of homicides are due to drugs and rivalries among the gangs that control the drugs.

Table 1: Preliminary report on homicides in Puerto Rico 2016 (Source: http://policia.pr.gov/informe-preliminar-de-asesinatos/)		
	Totals	%
Drugs	208	48.0
Vengeance	75	17.3
Undetermined	41	9.5
Fights / arguments	37	8.5
Grudges	27	6.2
Passion	17	3.9
Domestic violence	12	2.8
Robberies	11	2.5
Abuse of minors	4	0.9
Home invasions	1	0.2
Carjackings	1	0.2
Kidnappings	0	0.0
TOTAL	433	

⁷Law 149, the 1999 Organic Law of the Department of Education of Puerto Rico, specifically prohibits bullying so that students can study in a healthy environment without harassment. However, according to the Puerto Rico Stop Bullying Association and various recent newspaper articles, statistics on bullying and cyberbullying are hard to come by, although most commentators agree that it is on the upswing. Matos (2015, p. 1) estimates that about half of all children will be victims of bullying at some point, and at least 10% will be bullied regularly.

It is not difficult to see the link between illiteracy or incomplete education and the drug trade. When young people leave school early and are not fully educated, they are not equipped for employment at a living wage. A certain percentage will opt for the much higher and more immediate rewards reaped in drug trafficking and other illegal activities. This is yet another reason why it is so important to teach children to read and write well and engage them fully in the literate world so that they can obtain gainful employment and better prepare themselves to critically understand and withstand the pressures they will be subjected to by forces that seek to misuse their talents and shorten their lives.

5.0 Special literacy needs in Puerto Rico

Literacy has long been a great concern in Puerto Rico, and the level of illiteracy has steadily decreased since 1898 when the Spanish ceded Puerto Rico to the U.S., as is clearly visible in Table 2 below.

Table 2: Illiteracy in Puerto Rico		
Source: U.S. Census		
Year	Percent	Total population
1899	79.0	953,243
1910	65.5	1,118,012
1920	55.0	1,299,809
1930	41.4	1,543,913
1940	31.5	1,869,255
1950	24.7	2,210,703
1960	16.6	2,349,544
1970	10.8	2,712,033
1980	11.5	3,196,520
1990	10.4	3,523,037
2000 ⁸		3,808,610

During the 1930s, the federal Puerto Rico Emergency Relief Administration (PRERA) operated 22 literacy camps around the island, and during the 1940s, combatting illiteracy was an integral part of industrializing the island. As a result, by 1950, only 24.7% of Puerto Ricans remained illiterate. In 1954, the Literacy Program (*Programa de Alfabetización*) was created, and by 1970, illiteracy was reduced to

⁸In 2000, the illiteracy question was not included in the U.S. Census, so no statistics are available.

10.8%. The census of 1990 indicated that only 10.4% of Puerto Ricans (245,291) reported being unable to read and write in Spanish.

This would seem to indicate undeniable progress; however, modern literacy needs are far more extensive than those of earlier times, and the question of functional illiteracy is paramount. In 2000, according to the U.S. Census, more than 25% of island residents aged 25 and over had not completed the ninth grade, a sure sign of a limited level of functional literacy. The Literacy Survey of Puerto Rico (*Encuesta de Alfabetización de Puerto Rico*) was carried out in 2010 to fill in the void left by the omission of the literacy question in the census. It consisted of phone interviews with 6,574 persons aged 18 or more regarding their literacy practices.

The results indicated that overall literacy stood at 92%, with slightly lower figures for females and the elderly.⁹ The highest level of illiteracy (32.3%) occurred among rural senior citizens. Only 45.8% of the survey respondents claimed to read books weekly, while 98.5% watched TV or listened to the radio. More than 7% of the men had trouble writing, and 18.5% of the interviewees had children with reading difficulties (Disdier Flores, Pesante González, & Marazzi Santiago, 2012, p. 1). The correlation between poverty and illiteracy was robust, and literate individuals were more likely to be healthy (with a lower incidence of diabetes) and physically active (Disdier Flores, & Pesante González, 2013).

It should also be noted that in 2010, the World Bank indicated that the literacy rate among Puerto Rican youths (ages 15 to 25) was only 85%, meaning that 15% were unable to read and write (with understanding) a short, simple statement about their

⁹ This contrasts somewhat with the 2011 figure of 90.3% cited by the CIA's *World Factbook*.

everyday life. Therefore the illiteracy problem in Puerto Rico was most severe in 2010 among the elderly and among young adults.

In 2012, the Education Commission of the House of Representatives in Puerto Rico (Cámara de Representantes, 2012) criticized the Department of Education for failing to eradicate illiteracy since so many young people were dropping out before completing their education. This points to a very serious problem. As we have already seen, functionally illiterate youths cannot cope effectively in a technologically advanced society and often end up in the ranks of the permanently “discouraged,” the underemployed, or the criminally involved. The problems tend to worsen when they become adults, especially if they are immigrants or differently abled.

5.1 Adult illiteracy

Adult literacy often gets short shrift around the world, since governments tend to think they will get more back on their investment if they dedicate funds and time to young children. Puerto Rico is no exception. Only limited programs are available for improving adult literacy levels.

Much of the early work on literacy in Puerto Rico of necessity had to address adult educational needs because so many adults lacked schooling. However, by the middle of the 20th century, it was felt that the problem of adult illiteracy was best tackled in specialized units. In 1954, the elementary school program for adults was transferred to the office of Adult Education. During the 1980s, the Literacy Component was created and developed numerous projects to continue reducing the level of illiteracy on the island. Among these were:

- Uno Enseña a Otro (One Teaches Another) – high school students supervised by teachers gave classes to adults and received academic credit
- Educación para Adultos Deambulantes (Education for Homeless Adults) – federally funded classes were given in shelters and community centers.
- Alfabetización en Marcha (Literacy on the March) – combined academics and artisanry
- Alfabetización desde la Biblioteca Pública (Literacy from the Public Library) – teachers offered classes in public libraries.

During the 1990s, classes were offered in night schools, adult academies, centers for educational services, and a volunteer project in which citizens gave classes to their family members and neighbors. Approximately 66,440 adults were taught to read and write. In 2000, the Literacy Project (Proyecto de Alfabetización) was established and launched a creative literacy curriculum called *Alfabetización: La Magia de Leer* (Literacy: The Magic of Reading). It featured reading, math, learning games, flexible hours, and alliances with other government agencies. By May of 2005, it had given service to 42,334 adults (Ortiz, 1990).

Today the Department of Education of Puerto Rico offers adult basic education via the Programa de Educación para Adultos (PEA) in centers located in Arecibo, Bayamón, Caguas, Humacao, Mayaguez, Ponce, and San Juan. This program was created under the aegis of the federal Workforce Investment Act of 1998, Title II: Adult Education and Family Literacy Act. It focuses on developing the abilities of adults who left school early so that they can deal effectively with the demands of the workplace and

successfully face the challenges of modern life. Specifically, its goals are to help adults complete their high school degrees, increase their employability, and turn themselves into active participants in their own children's educational development. Among the curricular offerings are basic literacy, basic math, English as a Second Language, high school equivalency, and parenting.

5.2 Teaching immigrants to read and write

The second group that requires special attention with literacy is the immigrant population. While there is a general perception that Puerto Rican schools are relatively homogenous in ethnic makeup, the reality is that they receive increasing numbers of students from the Dominican Republic, Haiti, or other Caribbean islands, as well as return migrants who have been residing in the States. Dominicans speak a distinctive variety of Spanish, and Haitians and U.S. return migrants may have little or no formal training in Spanish. Dominicans and Haitians generally have few or non-existent English skills, and the return migrants who are native speakers of English may speak non-standard varieties that are not accepted in the schools in Puerto Rico (Pousada, 1994; Clachar, 1997a).

The Department of Education of Puerto Rico operates the awkwardly titled *Programa de Limitaciones Lingüísticas en Español e Inmigrantes* (Program for Linguistic Limitations in Spanish and Immigrants). It is intended for all students who speak a language other than Spanish at home or who come from outside of the U.S. and its territories. This Spanish as a Second Language program, funded by Title III-A in compliance with federal No Child Left Behind policies, seeks to teach such students to read, write, speak, and understand Spanish, perform effectively in content areas,

master the curricular standards for their grade, and integrate themselves into Puerto Rican society. Students are selected via a Home Language Survey and given a screening and placement test. Teachers receive special training for dealing with this population. In addition to classroom support, the program provides family literacy training, workshops for parents, tutoring, mentoring, and counseling. Differentiated instruction is utilized to meet the varying needs of the students.

However, this program does not reach the neediest immigrants who may not be documented or participate in the school system. Much more must be done to identify and give service to Puerto Rico's growing immigrant population. In addition, Puerto Rican return migrants may not qualify for this program since Spanish is spoken in their households, and many must depend on other means to get help with their sometimes limited or non-standard Spanish skills and their often challenging cultural adaptation to life on the island.

5.3 Providing literacy instruction for the Deaf

The final group with special literacy needs we will examine today is the Deaf community. The 2012 American Community Survey reports 150,000 hearing disabled individuals in Puerto Rico; however, Sordos de Puerto Rico (the Puerto Rico Deaf Association) estimates that there are currently approximately 340,000 hearing impaired and 80,000 totally deaf individuals in the country on the island (Williams and Parks 2012). There are four sign varieties in active use in Puerto Rico: American Sign Language (ASL), Puerto Rican Sign Language (PRSL), Signed Spanish, and Signed English.¹⁰ PRSL preceded ASL historically but is endangered and mainly used in rural

¹⁰ Homemade signs are also used, especially in isolated areas.

areas. ASL is winning out over PRSL. It is common to see ASL interpretation during televised hurricane warnings and gubernatorial speeches. However, overall, the rights of the Deaf are far from secure, and there have been many violations of the federal Americans with Disabilities Act, including denials of sign interpreters in private and governmental settings, limited educational opportunities for deaf children, and workplace discrimination (Academia ERS, 2000).

There are four schools for the Deaf in Puerto Rico: the Christian School and Chapel for the Deaf (previously known as the Evangelical School for the Deaf) in Luquillo, San Gabriel para Niños Sordos in San Juan, Colegio de Niños Sordos Fray Pedro Ponce de León in Ponce, and Escuela Cristiana para Sordos in Aguadilla. ASL is also taught at the Universidad del Turabo in Gurabo. Prior to 2010, the Academia de Estudios Relacionados al Sordo (Academy of Studies Related to the Deaf) gave ASL classes in San Juan, Aguadilla, Ponce, and Arecibo. Close-captioned TV in Spanish is provided by some local stations. In addition, there are at least four interpreting agencies and a number of text and video relay services. Most sign language interpreters in Puerto Rico are freelance and uncertified, since there is no certification process, and their numbers (perhaps 100-150) are insufficient to address the needs of the Deaf population (personal communication, Ramón Valle-Jiménez 2014).

In Puerto Rico, deaf children have various educational alternatives. They can be mainstreamed and accompanied by an interpreter, enrolled in one of the few schools for the Deaf, enrolled in a Special Education program, or home schooled. Many receive a patchy or incomplete education, and some may attain only a fourth grade literacy level.

Teaching deaf children to read is extremely challenging since they must learn to link written symbols representing a spoken language that they cannot hear to meanings or mental representations. This is referred to by Padden and Ramsey (2000) as “chaining.” For a long time, it was felt that the Deaf should be taught via an oralist approach so that they could “fit into” the hearing world. Oralism was also viewed as a prerequisite for teaching literacy. This led to a massive focus on speech therapy and auditory training and often resulted in considerable educational lag and emotional trauma. Research during the 1970s and 1980s led to the acceptance of sign as a full-fledged human language and a suitable means of educating the Deaf. However, initial work in teaching literacy through signs relied upon artificial systems like Manually Coded English (Signed English) which follow English morphological and syntactic patterns rather than those of ASL. Supalla & Cripps (2010) judge such an approach as dysfunctional since it confused deaf students and caused errors in their ASL signing.

Recent studies reveal positive effects of sign language proficiency on reading and academic achievement (Hermans, Knoors, Ormel, & Verhoeven, 2008). However, teachers need special literacy tools and instructional procedures to help deaf children make the transition from sign to written language. One technique has the teacher fingerspelling a word while pointing to the letters written on the blackboard and finally using a sign for the entire word. Few public school teachers in Puerto Rico (even those certified in Special Education¹¹) have the skill in ASL to accomplish this. It should be noted that deaf children with deaf parents often learn to read more easily, probably because their parents are adept at sign and can support the learning process.

¹¹To be certified in Special Education in Puerto Rico requires taking only one class in teaching the Deaf.

While my comments have of necessity been brief, and I have surely oversimplified matters, I hope I have convinced you that services for all three special needs groups—adults, immigrants, and the Deaf—must be provided within a coordinated public education policy if functional illiteracy is to be completely conquered in Puerto Rico.

6.0 Conclusion

It is my firm conviction that literacy is the path to social solidarity and peace. Nowadays illiteracy tends to be the result of social marginalization and exclusion. When it prevails, it means that individuals and groups are disenfranchised and denied basic human rights. Such denial leads to conflict, resentment, and inter-group hostilities.

Literacy, on the other hand, empowers people and allows them to obtain the necessary information they need to participate in democratic processes and shape the destinies of their communities. Furthermore, it provides the skills needed for meaningful employment and helps to eradicate poverty, reduce infant mortality, control population size, promote gender equality, and guarantee sustainable development (UNESCO, 2006). It additionally enables inter-group dialog and cooperation and maximizes opportunities for mutual understanding and peace.

In closing, I would like to underscore that “literacy is no longer exclusively understood as an individual transformation, but as a contextual and societal one” (EFA, 2006, p. 159). Accomplishing full societal literacy is an absolute necessity if we are to address the many ills that plague Puerto Rico today and foment a peaceful and harmonious society.

To accomplish this, solid curricular design, careful planning, pre-service and in-service teacher training, continuous collection and publication of data, political and economic backing by the government agencies, and community support are essential. School facilities must be made available to both native-born and immigrant communities during the evenings, weekends, and summers so adults and adolescents can attend classes with as few obstacles as possible. In addition, the literacy skills of the Deaf and other differently abled groups must be developed further so they can contribute to the maximum of their potential.

Conquering functional illiteracy will pay off in innumerable ways, among them increasing individual and societal peace. It must be made a priority by all educators and policymakers. English teachers in Puerto Rico can do a lot to help by selecting readings and class activities that reflect the principles of peace education and develop critical analytical and writing skills among our students at all levels of the educational process.

Thank you.

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