

Literacy Level and Vocational Training for Substance-Using Hispanic Adults

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ABSTRACT

The Hispanic population has become the largest ethnic minority group in the United States. To successfully incorporate this population in adult vocational training, social service, and health programs, it is essential that programs design and implement materials at a reading level appropriate for the population served. This study determines the reading level in a population of Hispanic adult substance users receiving HIV prevention services in Long Beach, California. One hundred seven Spanish speakers were administered the Spanish Reading Comprehension Test. Spanish reading ability was determined to be at the third grade level for this sample. Results suggest that substance-using subpopulations of Spanish speakers in the Southwest United States face considerable language and literacy barriers. Findings have implications for adult vocational training as well as social service and health programs that include Hispanic subpopulations, and highlight the importance of designing materials that do not exceed the reading abilities of target populations.

Keywords: Adult Basic Education, Adult Learning, Hispanic, Literacy, Reading, Substance Use

INTRODUCTION

In recent years, the Hispanic population in the United States has grown rapidly compared to other minority ethnic groups, increasing by 57.9%, from 22.4 million in 1990, to 35.3

million in 2000 (U.S. Census Bureau, 2001). By contrast, the U.S. population as a whole increased by only 13.2% during the same time period. In 2002, more than one in eight people in the United States were of Hispanic origin (Ramirez & Cruz, 2003). In 2009, the number of U.S. Hispanics increased to 48.4 million, constituting the nation's largest ethnic minor-

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ity group at 16% of the nation's total population (U.S. Census Bureau, 2010). Moreover, it is estimated that during the next 40 years, Hispanics will contribute more people to the overall U.S. population than any other racial/ethnic group, increasing to 25% of the overall population (U.S. Census Bureau, 1996). Of the 35.3 million Hispanics living in the United States at the turn of the Century, 4.2 million lived in Los Angeles County, California—the largest county in the nation (Guzman, 2001). Since July 2008, Los Angeles County has had the greatest numerical increase in Hispanic residents (78,000) nationwide (U.S. Census Bureau, 2010). In 2009, the number of Hispanics living in Los Angeles County reached 4.7 million (U.S. Census Bureau, 2010). These demographic trends have important implications for adult vocation, social service, and health programs serving members of this expanding population.

Low literacy is a substantial and understudied problem in the U.S. (Miller, McCardle, & Hernandez, 2010). In 2003, the National Assessment for Adult Literacy (NAAL) assessed English literacy in a nationally representative sample of U.S. adults (National Center for Education Statistics, 2003) and found that 30 million Americans were assessed at a “Below Basic” level for prose literacy, indicating “no more than the most simple and concrete literacy skills” (Kutner, Greenberg, & Baer, 2005). An additional 11 million were assessed as “nonliterate.” Hispanics were overrepresented among those with poor prose literacy, with 36% of all Hispanics, and 61% of those Hispanics who spoke only Spanish before beginning school, scoring in the “Below Basic” group (Kutner et al., 2005).

Nationwide, Los Angeles County has the highest percentage of individuals with low literacy. Half (53%) of the county's working age population has low literacy skills (The United Way of Greater Los Angeles, 2004). Of these, approximately 2.3 million are categorized at literacy level 1, the lowest of five literacy levels measured. People at this level typically are unable to locate an intersection on a street map. The city of Long Beach, which is part of Los

Angeles County, ranks second highest out of five other southern California cities having the largest low literacy numbers (Los Angeles, Long Beach, Pomona, Glendale and El Monte), with 166,000 individuals who fall into literacy levels one and two. Limited education and minimal English language skills are major contributing factors. In Los Angeles County, 31% of the working age population has limited English skills, including more than 360,000 who report not speaking English at all (The United Way of Greater Los Angeles, 2004). More than half of the Hispanic population in the southwest United States lack basic English-language skills.

The level of education attained by a substantial number of Hispanics in the U.S. educational system is quite limited. A 2002 report by the U.S. Department of Commerce (Ramirez & Cruz, 2003) found that Hispanics aged 25 years and older were less likely to have graduated from high school than were their non-Hispanic White counterparts. In addition, about 27% of Hispanics had less than a ninth-grade education (Ramirez & Cruz, 2003). The report also found that in 2002, 40.2% of the U.S. Hispanic population was foreign born. This figure is noteworthy because a large portion of the foreign-born population may be proficient only in their native language, Spanish. Thus, literacy rates in *both* English and Spanish are a concern for this population.

Literacy performance influences a number of life skills, including access to and comprehension of adult vocational training, as well as social and health services (Berkman et al., 2004; U.S. Department of Health and Human Services, 2004). Educational materials used within various public health domains have been assessed at reading levels that exceed the ability of their intended populations (Freimuth, 1979; Johnson, Mailloux, & Fisher, 1997; Streiff, 1986). Research (Cotugna, Vickery, & Carpenter-Haeefe, 2005) has shown that the average reading level of 31% of the patients in a Veterans Administration Arthritis Center was below the 7th grade level, yet materials designed for these individuals were assessed at grade levels 8 to 13. Johnson and colleagues (Johnson,

Fisher, Davis, & Cagle, 1995; 1996) found that the average reading ability of substance users receiving HIV and AIDS prevention services in Anchorage, Alaska was between 8.5 and 8.7 grade reading levels, making the average study participant's reading level lower than approximately 76% of the general population; Native and White participants had significantly higher reading levels than Hispanic and Black participants. The National Work Group on Cancer and Health recommends that written materials for health communications be at a 5th grade level or lower (Cotugna et al., 2005).

The challenges associated with delivery of adult education and social services are compounded in communities where English language skills are minimal. Vocational skill acquisition and workplace opportunities for adult learners can be limited by low literacy. Studies that have examined literacy among Hispanic AIDS patients have found that patients with low literacy skills report low medication adherence, feelings of shame, avoiding disclosure of their inability to read, and low utilization of health care services (Murphy, Roberts, Hoffman, Molina, & Lu, 2003; Servellen, Brown, Lombardi, & Herrera, 2003; Servellen et al., 2003). Language can be a salient barrier to the delivery of high quality programs for adults, especially for members of first- and second-generation migrant families. Language barriers affect the likelihood that individuals will participate in adult training and other programs, as well as their understanding of the information and services provided.

Acculturation

Acculturation has been defined as an explanation of how and why experiences vary among ethnic and cultural minorities as international migration, economic globalization, and political conflicts have led to increasingly multicultural societies (Trimble, 2002). Changes that constitute acculturation include those at the individual psychological level as well as at the sociocultural level.

Acculturation can bring about positive or negative changes. *Acculturative disorganization*

(Chance, 1965) refers to negative, disruptive, and stressful circumstances that result from acculturation. Berry (1980) pioneered a *psychological acculturation* perspective involving intergroup contact, conflict, and adaptation. Berry and Annis (1974) developed an *ecological-cultural-behavioral* model, which proposes that acculturation behavior varies as a function of ecocultural setting. This model focuses on behavioral shift that occurs prior to and during contact and stress, and on disruptive behaviors that emerge because of contributions from the dominant culture.

The relationship between acculturation and mental health in Hispanics has been studied more than in any other racial/ethnic group since about 1970 (Organista, Organista, & Kurasaki, 2002). A seminal review of the literature (Rogler, Cortés, & Malgady, 1991) determined that findings could not be integrated across the research because of pervasive inconsistencies in methods and measurement. In fact, studies showed conflicting results, with roughly half indicating a positive relationship between acculturation and mental health, and half indicating a negative relationship. A noteworthy exception is the consistently positive relationship between acculturation and alcohol and substance abuse, which persists even when controlling for age, sex, and marital status. For example, in one study, U.S. born Mexican Americans, who had higher acculturation scores, also had higher rates of all mental health issues measured, including alcohol and substance abuse and dependence (Burnham, Hough, Karno, Escobar, & Telles, 1987). Furthermore, immigrant Mexican Americans had lower lifetime prevalence of alcohol and substance abuse problems than did non-Hispanic White individuals, while US-born Mexican Americans had a higher prevalence.

Rogler et al. (1991) noted that although new immigrants may feel optimistic about their economic prospects relative to others from their country of origin, Hispanics from second and later generations may feel pessimism when comparing their futures to those of mainstream American society because of the effects of prejudice, discrimination, and a devalued status as an ethnic minority. Portes and Rumbaut (2001)

studied the education, employment, and health experiences of second generation immigrants in the US. In their study, Mexican parents did not gain increased income with increased years of US residence, and acquiring English language skills provided a smaller financial reward for Hispanic immigrants than for immigrants from other countries. The researchers describe the difficult process of adaptation that Mexican Americans experience when they confront lowered aspirations, expectations, and self-esteem in light of economic disadvantages and language barriers. The researchers note that *downward assimilation* oftentimes occurs as a result of the cumulative effect of these and other challenges that Hispanic second generation immigrants face.

Adult Basic Education and Vocational Training

The large number of adults in the US who perform below a basic literacy level, particularly among Hispanic and other racial/ethnic groups, has led to funding of adult basic education (ABE) programs by the US Department of Education (MacArthur, Konold, Glutting, & Alamprese, 2010). Data from the National Assessment of Adult Literacy (NAAL) indicate that of the 2.5 million adults served in the 2004-2005 program year, 22% attended these programs to improve their English language skills; Hispanics represented 43% of all ABE program enrollees (Kutner, et al., 2005).

Research has found that literacy level (Kutner et al., 2007) and earning a GED (Rivera-Batiz, 1995) are positively associated with labor force participation. The National Adult Literacy Survey (NALS) (Rivera-Batiz, 1995) found that among Hispanics, employment increased in 1992 from 76.8% among dropouts to 93.3% among those who had earned a GED, with women experiencing the strongest effect. GED graduates, both men and women alike, had literacy scores that were higher than those of high school dropouts, but roughly equivalent to those of high school graduates (Rivera-Batiz, 1995). More recent data also has found that

earning a GED or high school diploma was associated with higher earnings (Liming & Wolf, 2008).

It has been argued that bilingual instruction is a critical means to attaining adult career and technical education equity for non-English speakers (Huerta-Macias, 2003). In support of this notion, Huerta-Macias has identified four factors that bear on adult education in the United States: (1) demographics, (2) high school drop-out rates, (3) demand for English as a second language (ESL) classes, and (4) the worker population. First, the Hispanic population is growing 53% faster than the population as a whole (U.S. Census Bureau, 2001). Second, Hispanics have the highest public school dropout rate relative to every other racial/ethnic group, with 27.8% of Hispanics dropping out in 2000 (versus 10.9% overall) and 22.4% in 2005 (versus 9.4% overall) (National Center for Education Statistics, 2010). Third, enrollment in tuition-based ESL programs and waiting lists for free programs remain high; in 2000, the waiting list for ESOL (English for Speakers of Other Languages) programs in Los Angeles included 50,000 adults. The 2003 NAAL Prison Survey found that although more than a quarter (29%) of prison inmates had participated in some sort of vocational training, a larger number were on waiting lists than actually were enrolled (Greenberg, Dunleavy, & Kutner, 2008). Fourth, a large proportion of the US Hispanic population is limited to low-wage jobs because of limitations in skills such as reading, writing, and computation; effective communication; and basic technology (Imel, 1999; Liming & Wolf, 2008; Miller et al., 2010). Given this population's limited access to ESL classes (because demand greatly exceeds supply) and adult education (because classes are typically offered in English), these four factors create a pressing need for bilingual adult education with the dual purpose of developing English language and literacy in addition to providing career and technical training.

Lewis (1997) has argued that although economic and productivity concerns have highlighted the extent of low literacy in the

U.S., vocational training programs rooted solely in economics cannot sufficiently address the problem. Typically, employers narrowly focus vocation-related training on productivity rather than on literacy. Workplaces do not and will not seek to promote empowerment and critical consciousness through literacy, but instead focus their efforts on activities that can, first and foremost, improve the bottom line. Such activities include acquiring new technology, downsizing operations, and other means of re-engineering productivity. Lewis goes on to argue that if the motivation underlying provision of adult literacy and vocational training programs is tied *exclusively* to economics, and if literacy is viewed *entirely* in a workplace context, then the problem of illiteracy will persist, if not fester, as businesses implement alternative solutions to address competition. Thus, it is argued that adult education and vocational training should be embedded in broader efforts to remedy societal inequity.

Purpose

The purpose of this study was to determine the literacy level in a social service population of Hispanic substance users in Long Beach, California. The confluence of increasing prevalence of low literacy skills, workplace literacy demands, and competition for jobs creates greater need for adult basic skill education programs. It is important to understand language and literacy barriers faced by Hispanic subpopulations in order to design effective education, vocational training, social service, and other programs for this growing segment of the population.

METHOD

Participants

The sample was recruited from a pool of substance users participating in ongoing HIV prevention programs operated by the Center for Behavioral Research and Services (CBRS) at California State University, Long Beach. Eligibility criteria included: reporting His-

panic ethnicity, being proficient in speaking and reading Spanish, and reporting current substance use (alcohol or drug use within the prior 30 days). Participants received a \$5 monetary incentive for their participation in the study. In addition, a bag of groceries and HIV-related services and prevention supplies (condoms and lubricants) were provided to further encourage participation.

A total of 107 Spanish-speaking alcohol and drug users participated in the study ($N = 107$). Participants were either monolingual Spanish speakers or bilingual in English and Spanish, with their primary language being Spanish. All were of Hispanic ethnicity, except for one participant who self-identified as "other" because of mixed ethnicity (Hispanic and Persian). Two-thirds of the sample identified their Hispanic family origin as Mexican or Mexican American, with 37% Mexican (40/107), 28% Mexican American (30/107), 20% Central/South America (22/107), 5% Puerto Rican (5/107), 5% Cuban (5/107), and 5% other (5/107) (Table 1). Among participants whose families hailed from Central/South American, thirteen different countries of origin were reported, with Guatemala (27%, 6/22) and El Salvador (17%, 4/22) being the most frequent for this sample. A complete breakdown of country of family origin for those who self-identified as Central/South American is included in Table 2.

Participant gender, education, and income are presented in Table 3. Sixty-six percent were men (71/107). The mean age was 39.87 years ($SD=13.27$), with participant's ages ranging from 18 to 81 years. Five percent had graduated from college (graduado de la universidad) (5/107), 19% had some college education (algo de ensenanza universitaria o preparatoria) (20/107), 1% had trade/technical training (entrenamiento tecnico) (1/107), 18% had a high school education (graduado del colegio/gaduado escuela secundaria) (19/107), 6% had obtained a GED (un GED, certificado equivalente de la secundaria) (7/107), 34% had less than a high school education (no es graduado del colegio o escuela secundaria superior) (37/107), 14% had an 8th grade education or

Table 1. Hispanic family origin (N = 107)

Ethnicity	<i>n</i>	%
Mexican	40	(37.38)
Mexican American	30	(28.05)
Central/South American	22	(20.56)
Puerto Rican	5	(4.67)
Cuban	5	(4.67)
Other	5	(4.67)

Table 2. Central/South American and other country of origin (N = 22)

Country of Origin	<i>n</i>	%
Guatemala	6	(27.27)
El Salvador	4	(18.18)
Honduras	3	(13.63)
Argentina	2	(9.09)
Chile	1	(4.54)
Panama	1	(4.54)
Peru	1	(4.54)
Colombia/Peru	1	(4.54)
Columbia/Guatemala	1	(4.54)
Honduras/Puerto Rico	1	(4.54)
Mexico/ Brazil	1	(4.54)

Table 3. Demographic information (N = 107)

<i>Variable</i>	<i>n</i>	%
Gender		
Men	71	(66.35)
Women	36	(33.65)
Education		
College graduate	5	(4.68)
Some college	20	(18.69)
Trade/technical training	1	(.93)
HS graduation	19	(17.75)
GED (HS equivalence)	7	(6.54)
Less than HS graduation	37	(34.58)
8 th grade or less	15	(14.02)
No formal schooling	3	(2.80)
Monthly Income		
Less than \$500	59	(55.14)
\$500 - \$999	26	(24.29)
\$1,000 - \$1,999	17	(15.89)
\$2,000 - \$3,999	5	(4.68)

less (octavo grado o menos) (15/107), and 3% had no formal education (no tiene educacion formal) (3/107). More than half (55%) had an income of less than \$500 a month.

Materials

For the present study, program staff conducted structured interviews with participants using the following two instruments—the Spanish Reading Comprehension Test (Moreno, 1993) and the Risk Behavior Assessment (National Institute on Drug Abuse, 1993).

Spanish Reading Comprehension Test

The Spanish Reading Comprehension Test (Moreno, 1993) was developed, standardized, and normed in Mexico; however, it was developed and designed for use in the United States. The Spanish Reading Comprehension Test was designed to determine the level of Spanish reading achievement compared with Mexican norms (Moreno, 1993). The instrument also can be used for determining adult Spanish reading level. The test is administered to determine adult functional reading level, either for further instruction in Spanish or in another language (Moreno, 1993). The test is made up of 73 items, and is administered within a 30-minute time limit. The 73 items are stories that were obtained from textbooks used in grades 1-6 in Mexico. The stories were arranged in order of difficulty beginning with the first grade story, then the middle grade story, and so forth. Questions were then written for each of the stories. The questions were designed to reflect the order of difficulty, with the easiest items being first (Moreno, 1993). The results determine Spanish reading comprehension level for grades 1-6 in the Mexican educational system.

Risk Behavior Assessment

The Community Research Branch of the National Institute on Drug Abuse (NIDA) in collaboration with grantees involved with the Cooperative Agreement for AIDS Community-

Based Outreach/Intervention Research program developed the Risk Behavior Assessment (RBA) questionnaire (National Institute on Drug Abuse, 1993). The RBA is a 20-40 minute structured interview that includes items on demographics, drug use, needle sharing, sexual behaviors, drug treatment history, health history, work status, and income. The English version of the RBA has been found to have good reliability and validity (Dowling-Guyer et al., 1994; Fisher, Kuhrt-Hunstiger, Orr, & Davis, 1999; Schlicting et al., 2003). The Spanish version of the RBA was used to collect demographic information from all participants.

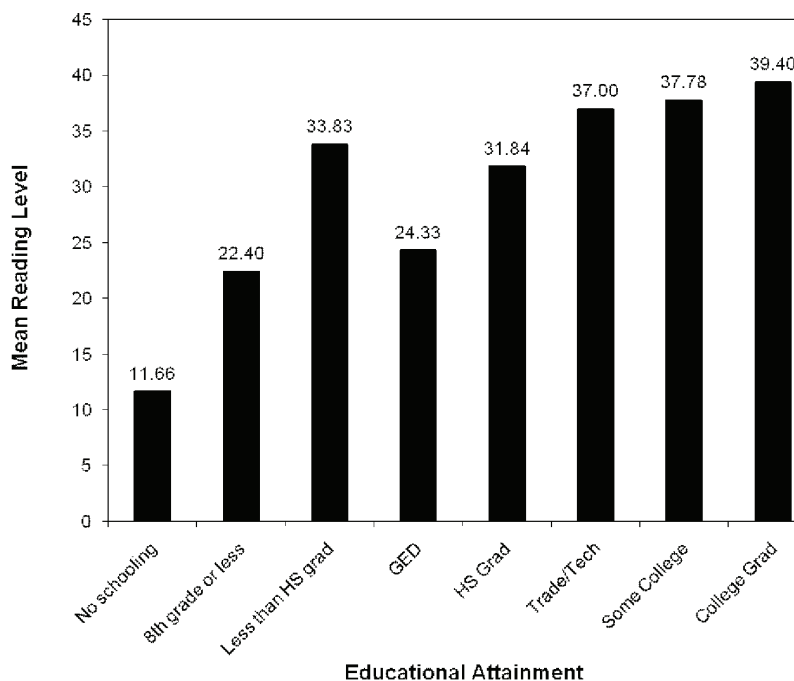
Design and Procedure

Each participant met individually with a peer health educator. The peer health educator read a script to the participant describing eligibility requirements and the voluntary nature of the study. After confirming interest in continuing, the peer health educator obtained informed consent for study participation. A copy of the consent form (approved by the California State University, Long Beach Institutional Review Board) was provided to the participant to review. The peer health educator carefully read and discussed the consent form with the participant, and answered any questions or concerns regarding the study. Once the participant and the peer health educator signed the consent form, the peer health educator offered the participant a copy to keep.

Next, the participant completed a client locator form, which included the client's name, contact information, date of birth, and other identifying information. This information was entered into the encrypted CBRS client database system, and a client identification number was assigned to each participant.

Following informed consent procedures, the peer health educator administered the Spanish Reading Comprehension test and the Risk Behavior Assessment. Finally, the peer health educator thanked the participant for completing the interviews, provided the participation incen-

Figure 1. Mean reading level score by educational attainment ($N = 107$); overall mean=30.65; possible range of scores: 1-60



tives, and scheduled a return visit for participation in other program and research activities.

RESULTS: SPANISH READING LEVEL

Average reading level by education is presented in Figure 1. The sample's overall mean score on the Spanish Reading Comprehension Test was a 30.65, which is equivalent to a 3.9 grade level. Individual scores ranged from 0 to 60, which is equivalent to grade levels of less than the first grade to beyond sixth grade. Of 73 possible points, the mean score was: 11.66 for those with no formal schooling, 22.40 for those with 8th grade education or less, 33.83 for those with less than a high school education, 24.33 for those who had obtained a GED, 31.84 for those who had graduated from high school, 37.00 for those with trade or technical training, 37.78 for those with some college, and 39.40 for college graduates.

DISCUSSION

The very low reading level obtained for this sample can be explained in several ways. First, the sample consisted of a majority of low-income individuals with 58.31% having less than a high school education. Most participants, because of their limited experience in the educational system, had difficulty understanding the concept of a multiple-choice test. All participants were given a thorough explanation of how to take the test and performed four practice questions with the health educator. However, some participants were still unable to follow the multiple-choice instructions because of their unfamiliarity with the test format. This difficulty could have resulted in a slower pace, and hence, failure to complete the exam within the allotted time frame or in answering questions incorrectly. Substance use, either alone or in combination with unfamiliar test conditions, also could have contributed to low scores. Moreover, the

Table 4. Higher educational systems for the United States and Mexico

US Educational System	Typical Age of Student	Mexico Educational System	Typical Age of Student
High School	15-18	Bachillerato	15-18
Undergraduate	18-22	Licenciatura	18+
Master's	Unknown	Maestria	Unknown
Doctoral	Unknown	Doctorado	Unknown

literacy level in Los Angeles County has been reported as very low, with 53% of the working-age population being unable to properly read a bus schedule (The United Way of Greater Los Angeles, 2004). Therefore, a third grade reading level in this sample of Hispanic substance users is not entirely surprising.

To examine the distribution of the Spanish reading comprehension scores, the mean Spanish Reading Comprehension Test score was calculated separately for each level of educational attainment (Figure 1). As expected, reading level roughly correlated with educational attainment. The educational attainment category with the lowest mean score (11.66) was “no formal schooling”; the category with the highest mean score (39.40) was “college graduate” (Figure 1).

Careful examination of the Spanish version of the educational attainment question provides further context for interpreting the results of this study. The educational attainment question was translated as a literal translation from English into Spanish, and did not take into consideration that the education system in Latin American countries is not equivalent to the educational system of the United States. For example, in Mexico, unlike in the United States, trade technical training is known as “Educacion Media Superior.” This level of education usually takes place at the age of 16 and is three years in length (World Education Services, 2006). “Educacion Media Superior” is therefore equivalent to a 10th through 12th grade education in the United States. According to Education Profiles (2006), higher education in Mexico is classified as a Bachillerato (Trade/

technical training), Licenciatura (undergraduate), Maestria (Masters degree), and a Doctorado (Doctorate degree). In other Latin American Countries, such as El Salvador and Columbia, a college education is similarly classified as in Mexico; however, students as young as 15 may begin a Bachillerato degree. When the educational attainment for the study sample was obtained this fact was not taken into account.

The number of years of education a child receives in a Latin American Country is not equivalent to the number of years of education a child receives in the United States (Table 4). Consequently, it may be that the actual educational attainment of this sample is even lower than indicated. For those who reported some college education or college graduation, this may represent completion of a Bachillerato in their country of origin, which is equivalent to a high school education or less in the U.S. educational system. Future studies assessing educational attainment of individuals should clarify where the education was received and the equivalence in the United States. An alternative solution is to create an educational attainment question that is more culturally specific to Latin American Countries. This change would improve assessment of educational attainment in future studies.

This research was conducted in hope that similar research will follow. Unfortunately, it is not uncommon for questionnaires, informational pamphlets, and other documents to be created without consideration of the challenges faced by those for whom the documents are created. Further research is needed in this area to ensure that literacy among Spanish speakers

is properly assessed and that materials for Spanish-speaking populations are appropriately designed based on documented reading level.

Implications

In this sample, the native Spanish language reading level was very low—a fact that should be taken into account in future work with this population. Thus, readability is not only a concern for materials printed in English, but also for those translated to Spanish. Efforts to assess native language reading level are critical in order to ensure that intended content is accessible. Training materials as well as data collection and test instruments created specifically for Hispanic substance users should be assessed and adjusted to ensure that the reading level is appropriate. Training adaptations may require incorporating pictorial information, assistive technology, as well as other strategies to help communicate key concepts. Assistive technology using text-to-speech and speech-recognition software has been shown to help improve literacy among adults with learning disabilities when used as a supplement to adult basic education classes (Silver-Pacuilla, 2006). Language- and literacy-appropriate training adaptations are critical because the quality and relevance of instructional materials are directly related to learner outcomes.

The particular method used to assess readability of text materials is important. A study conducted by Mailloux, Johnson, Fisher, and Pettibone (1995) found that the Microsoft Word program provided significantly lower grade levels than other approaches and was more inconsistent in the scores it provided when assessing the readability level of 28 pieces of printed educational materials on HIV and the Gettysburg address. More robust methods of measuring readability should be used. Future research should seek to identify a workable Spanish language readability program to help measure readability and assess the appropriateness of Spanish translations.

Moreover, future research must seek to identify the critical features of adult instruction that are associated with greatest improvements in adult literacy skills. As assistive technology continues to expand and improve, new approaches must be evaluated. Identifying the particular program components and instruction strategies that result in literacy level gains can lead to greater use of evidence-based programs, and consequently, greater program success. Learner characteristics that may be associated with greater success as a result of participating in different types of programs also should be identified. Such information can be used to help match learners to the most appropriate program approaches based on their individual needs.

Research has found that literacy in one's native language helps adults who are learning to read in English through the transfer of basic reading skills from one language to another (Wagner & Venezky, 1999). Thus, Hispanic adult subpopulations with particularly low Spanish reading skills, such as our sample, can be expected to face greater challenges in learning English compared to Hispanic adults who have greater Spanish literacy skills.

Lastly, we hope that the results from this study highlight the language and literacy barriers faced by many Hispanic adults, as well as the critical importance of assessing, documenting, and responding to reading level within the adult learner population when designing training materials. Literacy and the challenges it poses are critical issues to address in planning for the success of Hispanic adult learners and consumers of social and health services. By assessing and documenting the literacy level of Spanish-speaking subpopulations within Los Angeles County, it is hoped that better, more accessible materials can be developed for individuals who face language and literacy barriers to adult education and vocational training in an increasingly competitive global economy.

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