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Hispanic and Non-Hispanic Adult Learners: Analytical Thinking and Affiliation

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Abstract

This study examined 364 Hispanic and non-Hispanic adult learners using linguistic inquiry and word count (LIWC) of reflective writing assignments with implications for adult learners and educators.

Keywords: adult learners, nontraditional students, Hispanic students, linguistic analysis and word count

Hispanic students represent a significant number and percentage of undergraduate students in the United States. However, according to the National Center for Education Statistics (NCES, 2014, 2021a, 2021b, 2021c), Hispanic college students have higher attrition rates and longer time to degree and currently represent only 14.85% of those earning a bachelor's degree.

Nontraditional students, age 25 and above, represent 25.37% of undergraduate students enrolled in degree-granting postsecondary institutions (NCES, 2021a). Adding part-time students 24 years and younger increases the possible percentage of nontraditional students to 41.33% (NCES, 2021a). These adult learners bring abundant life and work experiences to the classroom (Knowles, 1973), while juggling multiple roles and competing responsibilities in the family, workplace, and community (Ross-Gordon, 2011).

College graduates enjoy many work-related benefits (Cherrstrom & Boden, 2018). Over a lifespan, for example, women and men with a bachelor's degree respectively earn \$630,000 and \$900,000 more than high school graduates (Social Security Administration, 2015). Additional knowledge of Hispanic students, adult learners, and the intersection of Hispanic adult learners could increase enrollment, foster enhanced learning experiences, close the gap to graduation, and maximize earnings for themselves and their families.

Purpose of the Study and Research Questions

The purpose of this study was to examine adult learners using linguistic inquiry and word count (LIWC) of reflective writing assignments. Based on this research purpose, access to over 10,000 pages of student writing, and relevant features of LIWC analysis, two research questions guided the study:

- What similarities and differences exist between Hispanic and non-Hispanic students in analytical thinking, clarity, authenticity, and emotional tone?
- What similarities and differences exist between Hispanic and non-Hispanic students in overall drives and underlying affiliation, achievement, and power?

The results of this study offer implications for Hispanic and non-Hispanic adult learners, for educators and advisors, higher education institutions, and the field of adult education.

Perspective and Relevant Literature

This study situated at the intersection of reflective writing assignments; linguistic inquiry and word count analysis; analytical thinking, clout, authenticity, and emotional tone; and drives.

Reflective Writing Assignments

Reflection serves to generate, deepen, and document learning in higher education (Ash & Clayton, 2009) and supports learners in sense making and reimaging experiences to benefit themselves and society (Ryan, 2013). To promote such reflection, adult learners in this study examined theory (e.g., adult development, adult transition, disciplinary learning and ways of knowing), participated in learning activities, and completed reflective writing assignments using Kolb's (1984) experiential learning model.

Linguistic Inquiry and Word Count Analysis

"People reveal themselves by the words they use" (LIWC, n.d., Introducing LIWC-22 section, para 1.), and the words we use reflect our attention, avoidances, thinking, feelings, and perspective (Tausczik & Pennebaker, 2010). LIWC-22 software analyzes over 100 dimensions of text to understand a person's emotions, feelings, concerns, thoughts, and personality (Chung & Pennebaker, 2012; LIWC, n.d.). The software compares each word of a text file or group of files with the words in over 100 dictionaries, each corresponding to a specific category and relevant collection of words (LIWC, n.d.). Using this method, researchers can analyze considerable amounts of textual data.

Widely used in the social sciences (Chung & Pennebaker, 2012), the current LIWC (n.d.) website links to over 20,000 scientific published articles using the software for data analysis. Scholarly journals support the process of new knowledge joining the body of existing knowledge, frequently through the peer review process in which disciplinary experts review manuscripts and recommend rejection, revision, or publication (Cherrstrom et al., 2017; Cope & Kalantzis, 2009; Taylor, 2001). A search for *LIWC or Linguistic Inquiry and Word Count* in the broadly scoped Academic Search Complete database yielded 12,436 results in All Text and 403 in Abstract.

Analytical Thinking, Clout, Authenticity, and Emotional Tone

As insight into a person's linguistic, psychological, and social processes, LIWC-22 uses four summary measures—analytical thinking, clout, authenticity, and emotional tone (LIWC, n.d.; Pennebaker et al., 2015). Each measure is algorithmically determined from relevant LIWC variables based on associated dictionary words and relevant research. The four summary measures may provide insight into the analytical thinking, clout, authenticity, and emotional tone of adult learners and differences between Hispanic and non-Hispanic learners.

Drives—Affiliation, Achievement, and Power

McClelland (1985) identified three implicit motives (or drives) learned in early childhood—affiliation, achievement, and power. Based on this research, LIWC-22 uses the overarching language dimension of drives to capture the underlying dimensions of affiliation, achievement, and power. Understanding the drives of adult learners and differences between Hispanic and non-Hispanic learners may offer insight for effective recruiting, teaching, and persistence to a college degree. In addition to the literature, a research design guided the study.

Research Design

This study situated at a large, public, Hispanic serving institution (HIS) in the South. The university's Institutional Review Board (IRB) approval a study of adult learners in a degree completion program using existing data from course assignments and an opt-out email. The final 364 participants were adult learners who completed two required introductory courses in a degree completion program. They comprised 57.4% women and 42.6% men and, using university classifications, were 51.1% White, 33.8% Hispanic, 11.8% African American, 1.4% Asian, and less than 1% each Multi-racial, Unknown, International, and American Indian/Alaskan.

Data collection comprised a comprehensive writing assignment for each participant and corresponding participant information from university systems. For the former, adult learners wrote a professional growth plan (PGP) including six theme-focused chapters—autobiographies of live events, as a worker, and as learner; learning style and disciplinary perspectives; abilities, interests, knowledge, and skills; and growth plan and future goals. Data analysis comprised linguistic analysis of the PGP files using LIWC-22 software and statistical analysis to compare each LIWC summary measure and the drives language dimension scores for Hispanic and non-Hispanic adult learners, leading to results.

Results

This section presents highlights from the results of the study, organized by research question. Traditional statistical tables are available upon request.

The first research question asked, what similarities and differences exist between Hispanic and non-Hispanic students in analytical thinking, clout, authenticity, and emotional tone? As similarities, results indicated no significant difference between Hispanic and non-Hispanic students in three of the four summary measures. Hispanic and non-Hispanic students scored low in clout, high in authenticity, and had a more positive than emotional tone. However, results further indicated a significant difference in analytical thinking with Hispanic learners scoring lower than non-Hispanic counterparts.

The second research question asked, what similarities and differences exist between Hispanic and non-Hispanic students in overall drives and underlying affiliation, achievement, and power? Each language dimension score denoted the percentage of overall words affiliated with the dimension. Results indicated similarities and differences in drives. For overall drives, results indicated no statistically significant difference. However, we then looked to the three underlying dimensions. As highest and lowest drives, with no significant difference, Hispanic and non-Hispanic students scored highest in achievement and lowest in power. In the middle, however, results revealed Hispanic students had a statistically significant and higher affiliation score than non-Hispanic counterparts.

Discussion

This section discusses key findings related to analytical thinking in Hispanic and non-Hispanic adult learners as well as their drives.

Analytical Thinking

Analytic thinking “captures the degree to which people use words that suggest formal, logical, and hierarchical thinking patterns” (LIWC, n.d., Analytical Thinking (Analytic) section, para. 1). In this study, Hispanic adult learners exhibited lower analytical thinking in their writing compared to non-Hispanic peers. The former used more intuitive, more personal, and friendlier language in reflective writing, while the latter used more logical, more formal, and more rigid or colder language (LIWC, n.d.). Employers value analytical thinking and seek college graduates with such skills. The American Association of Colleges and Universities (AACU) surveyed employers to identify the top skills needed in college graduates. Hiring managers, line managers, and executives identified critical thinking, inquiry and analysis, and problem solving as the top three skills (Flateby & Rose, 2021). Analytical thinking supports all three of these highly valued skills for job and career success.

Drive for Affiliation

Higher education institutions and popular literature often discuss functional reasons for going back to school—enhancing or adding skills, advancing existing or finding new jobs or careers, and earning more money. For adult learners, however, social and emotional reasons also prompt return to the physical or virtual classroom (Horn, 2021). McClelland (1985) identified three implicit motives (categorized in this study as drives) learned in early childhood—affiliation, achievement, and power. This study found Hispanic adult learners exhibited a higher drive for affiliation than their peers. Applying McClelland’s (1985) motivation theory, Hispanic adult learners seek affiliation by making friends and doing so by meeting the demands of others.

Implications for Adult Education

For theory, this study adds an examination of Hispanic and non-Hispanic adult learners using linguistic analysis and word count (LIWC) of reflective writing assignments to the literature. For practice, similarities and differences between Hispanic and non-Hispanic adult learners offer implications.

As similarities, Hispanic and non-Hispanic adult learners are authentic in reflective writing and communicate more positive than negative emotion. However, they also have low feelings of clout, the relative “social status, confidence, or leadership that people display through their writing or talking,” (LIWC, n.d., Clout section, para. 1). Adult educators can often provide choices to adult learners and encourage confidence through interactions and scaffolded assignments. As another example, achievement drives adult learners. Recruiting and advising can highlight achievement, and adult educators can provide opportunities for learners to achieve in the classroom and in other activities.

As differences, Hispanic adult learners have lower analytical thinking than non-Hispanic counterparts. Future research might examine why this is the case. In the meantime, adult educators can foster such skills in the classroom by developing learning objectives that require higher order thinking skills as well as learning activities and assignments to develop such skills. As another example, affiliation drives Hispanic adult learners more than their non-Hispanic counterparts. When recruiting Hispanic adult learners, an increased focus on affiliation might boost applications and enrollment. Once enrolled, opportunities to affiliate with others inside or outside the classroom might enhance retention and persistence to graduation. Future research can

examine the affiliation experiences of Hispanic adult learners and study interventions to increase such affiliation. These examples and additional implications will guide adult educators and our field in supporting Hispanic and non-Hispanic adult learners in earning a college degree.

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