Empowering Hispanics in Higher Education Through the Operationalization of Academic English Strategies

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Alma M. Sándigo, Patricia Peterson, and Kathleen Abou-Rjaily

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Abstract

Incorporating purposeful academic English strategies into higher education promotes equitable access to instruction and supports understanding through different perspectives and experiences. This is especially true for Hispanics (which refers here to anyone from a Spanish-speaking background). Because the perspectives and experiences of the Hispanic student population is so diverse, approaches for operationalizing academic English should include the following: viewing the various language backgrounds of Hispanic students as opportunity rather than deficit; using a holistic approach to assess content and academic English proficiency of students; creating academic supports that weave together

A. M. Sándigo (✉) · P. Peterson · K. Abou-Rjaily
Northern Arizona University, Yuma, AZ, USA
e-mail: alma.sandigo@nau.edu; patricia.peterson@nau.edu; ka834@nau.edu

content knowledge and skills, literacy, and academic English; and using instructional practices that facilitate the understanding and application of academic English.

Academic English strategies encompass both cognitive engagement and expressions of knowledge within the subject. A single definition of academic English does not yet exist, but research has identified academic English proficiency as a key factor in higher education attainment. The expectations vary by discipline (e.g., mathematics or English) and by maturity and experience in the discipline. However, including a focus on the linguistic structural dimensions of discourse, sentence complexity, and vocabulary can provide effective support for strengthening academic English. The operationalization of academic English should be a core component of academic support systems in higher education, resulting in higher college achievement.

Increasing the rate of college completion for Hispanics, who currently comprise more than half of the nation's work force, has become a central focus of educational initiatives (Carnevale & Fasules, 2017; HACU, 2012). Hispanics are the nation's largest, youngest, and fastest-growing population, comprising 18% of the overall population and 22% of the K-12 student population (Flores, 2017). However, in 2015, the poverty rate for Hispanics was 21.9%, compared to 12.7% for the nation, and Hispanics are less likely to receive financial benefits from their parents, such as

inherited properties or wealth, compared to other ethnic groups. Education can provide the means to improve this imbalance in social condition (Musu-Gillette et al., 2016) and enhance the national economy.

In 2013, Hispanics with a Bachelor's degree earned a median annual income of $45,800, compared to $50,000 for their Anglo peers – a difference of $4200. Meanwhile, the median annual income for Hispanics with no high school diploma was $22,800 compared to their Anglo peers at $30,000 – a difference of $7200 (Musu-Gillette et al., 2016). Indeed, a postsecondary degree can help narrow this salary gap. Therefore, colleges and universities should purposefully structure their educational systems to more effectively serve Hispanics, which will lead to improved social equality within the economy and across generations.

Hispanics in Higher Education

From 1990 to 2013, Hispanic participation in postsecondary education has increased from 6% to 17% of total college enrollment, which means that more than 50% of Hispanics have experienced college at some point. This should be celebrated, but the gap in college completion still remains. In 2016, the average Bachelor's graduation rate, after 6 years in higher education, was 45% for Hispanics compared to 62% for Anglos (Musu-Gillette et al., 2016). Hispanics are moving forward but not fast enough to close the educational gap.

The need to address Hispanic participation in colleges and universities has been recognized at all levels of government. In the 1980s, Texas and New Mexico drew attention to the concentration of Hispanic students enrolled in their colleges, and in 1986, President George W. Bush established the Hispanic Association of Colleges and Universities (HACU) with the intention of "promoting Hispanic student access to and success in higher education" (HACU, n.d.). Six years later, the designation of Hispanic Serving Institutions (HSI) as those with 25% or more Hispanic student population was established under Title III and later under Title V of the original Higher Education Act of 1965.

Most HSI designations have been based on student enrollment numbers, and only a few colleges have been established with the vision and mission of serving Hispanic students with excellence. Rather than initiatives made by the colleges, the designation of HSI is the result of Hispanic students selecting that particular college. In other words, the HSI designation is a student choice; the character of serving Hispanic students with excellence is an institutional choice.

Viewing the academic gap as only a language acquisition problem leaves colleges helpless to address this issue and places Hispanics in a deficit position with regard to empowerment. However, challenging overt and covert institutional systems to restructure and redefine practices has yielded better opportunities for Hispanics in higher education (Bauman, Bustillos, Bensimon, Brown II, & Bartee, 2005; Gándara & Rumberger, 2007; Irizarry & Nieto, 2010). Improving Hispanic graduation rates in higher education requires a combined effort from federal, state, and educational institutions, but the change begins with the willingness of universities and colleges

to evaluate their own practices and act in light of the specific needs and strengths of their Hispanic students (Arciniega, 2010).

Profiles of Hispanic Students

The first step in understanding the dynamics of an institution serving Hispanic students is to consider the profiles of their Hispanic students. The term *Hispanic* was first used in the United States in the 1970s to construct a social identity for those who were descended from Spanish-speaking origins (Mora, 2014). It also introduced a categorical means of examining the sociopolitical aspects of a minority group and influenced political initiatives that could encourage social reformations. The term, however, is used as an umbrella for people with great differences in sociocultural, academic, and linguistic experiences that influence both school and home experiences. *Hispanic* may refer to a monolingual English-speaking person of Mexican descent for several generations who has participated only in the American school system. It may also refer to a recent immigrant from South America who is an emergent bilingual person escaping from a civil war and whose school experiences are embedded in two countries with different educational systems. The profiles of Hispanic students are constantly changing.

Attempting to speak about the educational realities of generalized "Hispanics" misses the complexity of their experiences and obscures the patterns of current societal issues. Institutions serving Hispanic students must therefore acknowledge the personal stories of their students while evaluating and adjusting academic support practices, while striving for Hispanic achievement in the general sense. These generalizations include the very identity of Hispanics. According to Taylor, López, Martínez, and Velasco (2012), Hispanics tend to identify themselves by their nationality or the nationality of their ancestors rather than as simply Hispanic. More than 50% prefer the term Latino(a) or Chicano(a). Forty-seven percent of Hispanics consider themselves different from typical Americans, and just 21% feel that *American* best describes their identity (Taylor et al., 2012).

The National Center for Education and Statistics (NCES) is a federal agency located within the U.S. Department of Education that collects, analyzes, and reports on educational data. The following generalizations gathered from the NCES shed further light on Hispanics in the US educational system:

- 94% of students who identify themselves as Hispanic were born in the United States (Musu-Gillette et al., 2016).
- 30% of Hispanic children under the age of 18 lived in poverty in 2013 (Musu-Gillette et al., 2016).
- In 2015, 77.1% of all English language learners spoke Spanish as their native language (U.S. Department of Education, 2018).
- 64% of all Hispanics in the United States speak Spanish at home (U.S. Department of Education, 2018).

- 10% of Hispanics earned their highest math course credit in calculus (Musu-Gillette et al., 2016).
- The smallest Hispanic subgroup to enroll in college in 2013 was Guatemalans (25%) and the highest (65%) was Venezuelan (Musu-Gillette et al., 2016).

According to Nuñez, Crisp, and Elizondo (2016a), Hispanic males are more likely to enroll in community colleges that specifically serve Hispanics. Their participation is greatly influenced by their social network rather than by the programs offered by the college. Also, Hispanics who are first-generation college students tend to enroll in HSIs and are more likely to experience "environmental pull" – in other words, responsibilities that may pull them away from school (such as dependents, work, or financial difficulties). Nuñez et al. (2016a) have also pointed out that Hispanic students with lower GPAs tend to enroll in HSIs whereas those with higher GPAs tend to enroll in 4-year universities that are not specifically HSIs. These generalizations serve as a frame of reference for institutions to begin truly understanding the Hispanic students they are serving.

Experiences of Individual Hispanic Students

The Hispanic heterogeneity is depicted in the numerous and overlapping terms currently used in an attempt to encapsulate the sociocultural, academic, and linguistic backgrounds of Hispanic students. Some of these terms overlap or have different connotations and purposes that emphasize social experiences, schooling, or language. For instance, students in the K-12 system whose first language is other than English are referred to as English language learners (ELLs) in accountability systems, but the term should not be carried on to postsecondary institutions (Nuñez et al., 2016b). Some educators who believe that the term *ELL* has a negative connotation have suggested alternatives terms, such as *learner of English as an additional language (LEAL), emergent bilingual, multilingual student,* and *dual-language learner* (Lee & Lu, 2012). Other terms currently in use that reflect the process of becoming bilingual include *receptive* (understands but does not speak the second language), *sequential* (developed one language with proficiency and then learned the second language), and *simultaneous bilinguals* (both are native languages; Bardack, 2010).

A more comprehensive way of deconstructing the specific experiences of Hispanic students can be found in the differences that exist among immigrant generations. These nomenclatures reflect the interdependency of the sociocultural, academic, and linguistic backgrounds of students. The following descriptions are not meant to limit the experiences of Hispanics; rather, they foster a more comprehensive understanding of Hispanic students in higher education so that colleges and universities can engage in more effective conversations and partnerships with them.

Nonimmigrant Hispanics. It is important to note that not all Hispanics are immigrants. For some, the regional history of their places of origin has shaped their social identity (Hunley et al., 2017). Such is the case with people born in

American territories like Puerto Rico, and in communities that have suffered socio-political changes in statehood, like the sought states bordering Mexico. For non-immigrant Hispanics, the term *Hispanic* is used as a primary or secondary identity designation. Maintaining Spanish proficiency in school is a recognition of their own American-Hispanic identity rather than a claim of relationship to another country (Hunley et al., 2017).

First immigrant generation. First immigrant generation students are those who were born in a different country and immigrated to the United States. They tend to have a well-established sense of identity and see their native culture as a contribution to the new country rather than an indication of not wanting to acculturate. More than 80% of first-generation Hispanic immigrants believe their situation is preferable to the one offered by their native country. Therefore, their dedication to do well in school, even when this may take greater effort or time, is noticeable (Motti-Stefanidi & Garcia-Coll, 2017).

In general, those who come with a strong academic background do well in transitioning to academic settings in the United States. If they learned English as teenagers, they probably have a non-native accent and negative transfers in grammar. They also tend to speak with greater language complexity and advanced vocabulary. First-generation students who enroll in higher education tend to be self-motivated but need academic English support. They are also aware of the need to develop academic language and tend to accept and seek support to that end. Nuñez et al. (2016b) have noted that most first immigrant generations enroll in HSIs rather than non-HSIs.

One-point-five immigrant generation. Those who were born outside of the United States but immigrated before the age of 10 are considered part of a one-point-five generation. Their experiences are more closely related to the second generation of immigrants than to their first-generation peers.

Second immigrant generation. The second immigrant generation is the first generation born in the United States. They find no contradictions in being bicultural and feel a strong connection to their parents' country of origin as well as their own country. This generation tends to develop both languages as native languages before the age of 10, with a native-like accent and internalized grammatical rules in Spanish and English. Spanish usually becomes the language of social connection with family and community, although this generation tends to have friends and spouses outside their ethnic group more than any other generation (López, González-Barrera, & López, 2017).

Between the first and second immigrant generations, the second generation shows the greater academic growth in reading and math (Hull, 2017). College students of second generation tend to take remedial classes in English and mathematics (Rodríguez, 2013). The Pew Research Center found in 2013 that although second immigrant generation students outperform their peers who are first-generation immigrants in standardized assessments, they tend to have a lower college completion rate compared to first-generation students (Taylor et al., 2012). Rather than seeking academic support through tutoring, workshops, or individual meetings with their professors, they also tend to drop out of college based on grades earned in courses.

Students of the second generation tend to need support in both motivation and academic skills. Many second-generation students struggle with academic English for literacy purposes. Because they tend to have a native-like accent and make few or no grammatical errors, they tend to receive academic support that focuses on content and literacy versus the development of academic English.

Third immigrant generation. Most third-generation immigrants tend to speak Spanish with much less proficiency than previous generations or are English-only speakers. This language phenomenon is common with or without language restrictive laws (Dicker, 2003). The Pew Research Center estimates that seventy-seven percent of Hispanic third-generation immigrants self-identify as having Hispanic heritage but do not necessarily consider themselves Hispanic (López et al., 2017). Those who do not identify themselves as Hispanic state that they have a mixed background, have no contact with Hispanic relatives, do not speak Spanish, do not look Hispanic, or were born in the United States (López et al., 2017). In K-12 achievement, this generation performs below Anglos but better than first and second immigrant generations; they show little or no improvement as they move through school (Hull, 2017). Third Hispanic immigrant generation students are more inclined to enroll in a 4-year university than in a 2-year college or HSI. Little documentation exists about the experiences of third-generation students in higher education.

Sixty percent of Hispanics born in the United States are identified as ELLs upon entering school. They are placed in instructional programs that focus on English development. Many of these programs are framed in non-rigorous curriculums using approaches that hinder content knowledge – and therefore academic English (Gándara & Rumberger, 2007; Kanno & Kangas, 2014; Nuñez et al., 2016b). Those who have been identified as ELLs in early school years become long-term ELLs – students who do not reach language proficiency according to state language assessments within 7 years of participating in school (Menken, Kleyn, & Chae, 2012; Olsen, 2014).

Postsecondary Education for Hispanic Students

According to Nuñez and Sparks (2015), who have synthesized current studies that refer to support systems for Hispanics in higher education, Hispanic students attain college degrees when they have access to financial, social, cultural, and academic capital, with academic capital being the most influential for college completion. Many universities mention college culture and financial support as retention strategies for minority students (American College Test, 2010). Although these supports are effective in addressing some of the barriers faced by Hispanic students, they do not offer opportunities to close the gap caused by the lack of K-12 school opportunities necessary for developing the academic English required for college courses (American College Test, 2010; Bauman et al., 2005; Hurtado & Ruiz, 2012).

For Hispanic students with low entry scores in literacy and/or language, remedial English or English as a second language courses are prescribed or required by institutes of higher education (Ahmed, 2013; Nuñez, Hoover, Pickett, Stuart-

Carruthers, & Vázquez, 2013). This delays enrollment in required coursework and increases the number of credits that students must take to obtain a degree (Rodríguez 2013). For Hispanic students in mainstream classes, support services such as tutoring, peer mentors, and study groups focus on content but not academic language. As colleges serving Hispanic students assess efforts to better address the specific needs of Hispanic students, research is urgently needed to bring understanding of the dynamics of academic English into instructional practices (Nuñez et al., 2013; Ryan & Struhs, 2004).

Importance of Academic English in Higher Education

The development of academic English has received ample attention through research and policy in K-12 instruction, especially when concerning ELLs. Researchers and policy makers agree that academic English is the main mechanism needed to process and express knowledge (Cummins, 2008; Francis, Rivera, Lesaux, Kieffer, & Rivera, 2006; Snow & Uccelli, 2009). According to Halliday (1993, p. 94), "language is the essential condition of knowing, the process by which experiences become knowledge." Academic English, as used in schools, is developed through academic learning and literacy experiences in various sociolinguistic contexts (Collier & Thomas, 2007). In short, academic knowledge and academic language are interdependent at all levels of schooling.

Academic English development is important for all students, but it is critical for Hispanic students whose language backgrounds are at the core of their school experiences. Although this is recognized in K-12 institutions, explicit attention to academic English development in higher education that extends beyond remedial English as a second language courses is currently very limited or nonexistent (Anstrom et al., 2010; Callahan & Gándara, 2004; Nuñez et al., 2013). Institutions attempting to structure comprehensive academic support services must consider academic English as an integral component of such services.

Defining Academic English

There is currently no national common definition for academic English (Anstrom et al., 2010). Schools develop proficiency measurements that serve as guides for placements and instructional practices for English language learners according to the various existing educational philosophies. But this definition minimizes the multidimensional nature of academic English which is not only contextual but is also subject to the content of inquiry, the expectation of maturity or grade level of students, and the linguistic competencies of language itself (Anstrom et al., 2010; Cummins, 2008; Scarcella, 2003). In other words, "academic English cannot be described apart from the context in which it is used" (Anstrom et al., 2010, p. 49).

In higher education, expectations of knowledge processes and knowledge expressions differ greatly by academic discipline. In the sciences, for instance, students are

expected to use appropriate nomenclature for content vocabulary, which requires knowledge of affixes in relationship to concepts (e.g., electroencephalography). Students are also expected to precisely explain scientific phenomena, formulate higher order questions, synthesize readings with specific formats, and use sentences with many clauses and content-specific vocabulary.

The academic language of science differs from teacher preparation programs, where students are expected to be holistic thinkers, to relate theories and philosophies to practices, and to infer outcomes in short- and long-term goals. Yet, students need to be sequential when applying and evaluating teaching strategies. They are expected to synthesize information in dialectic inquiry and debate in order to build knowledge. The content vocabulary in preservice programs includes terms that may refer to one idea but differ in connotations or dimensions (e.g., scaffolding, differentiation, adaptations, and modifications).

The process of acquiring accepted and appropriate uses of academic English in higher education is also tied to culture. Gándara and Moreno (2002) have noted that for bilingual students, academic writing styles may be foreign and even awkward. For many bilingual students, academic English differs from the discourse structures of their native language. In a study comparing academic English with academic Spanish writing, Pérez de Cabrera (2012) found that the languages clearly varied in the number of independent clauses used, the use of interpersonal and topical themes as interactive devices with the reader, and the use of implicit and explicit subjects.

Lea and Street (2006) found that the implicitness of writing expectations in college and the great dissonance in student writing experiences between high school and college results in different interpretations of what constitutes academic English. Academic staff judged the writing of minority students as deficient, and minority students felt confused by the many variations of writing expectations of their different courses. Lea and Street (2006) believe that understanding faculty and students' writing habits is the first step in defining language expectations.

According to Anstrom et al. (2010), the multiple systems that define academic English may make it impossible to have one common national definition. Yet, there is a common agreement that academic English development must include three definite linguistic dimensions: discourse, sentence complexity, and content vocabulary.

Discourse is the organization of thoughts according to the purpose and audience of the oral or written text. Discourse includes specific organization and language patterns – the pragmatic and cultural understanding of the genre – because Spanish and English require different forms of discourse. Because terms that refer to genres (such as research, literature reviews, and peer-reviewed articles) are misused or not used in K-12 settings, the specific structures of university discourse need to be addressed explicitly.

Sentence complexity, or the syntactical structures and styles at the sentence level, give tone and voice to a text. Certain grammatical components bring clarity to the relationship of ideas as well as the morphological knowledge to correctly place words in sentences. Most instruction addresses vocabulary and discourse structure, while sentence structure receives little attention. Variations in sentence syntax

regulate how information is presented in relationship to prior and current contexts, contributing to the whole message (Pérez de Cabrera, 2012). In coaching tutors in the use of academic English, Sándigo (2017) found that tutors who used more written texts in their instruction and had basic knowledge of grammar brought attention to sentence complexity more than those who mostly lectured or felt limited in grammar knowledge.

Content vocabulary consists of the specific words unique to the subject being studied in their different derivational forms. Vocabulary study should include deconstructing unknown words based on morphological, syntactical, and contextual clues.

Operationalizing Academic English in Higher Education

The approaches that institutions select to develop academic English must provide the linguistic competence necessary to access complex content through listening, speaking, reading, and writing at the level expected in higher education. In doing so, colleges and universities would also be redefining how their students process and express their learning.

Operationalizing academic English is a challenge due to its complexity (Anstrom et al., 2010). The complexity of academic English requires analysis of the language of knowledge processes and the expressions needed to be successful in any given field. The operationalization of academic English should be flexible, respectful, and responsive to academic freedom. In a synthesis of current literature, the following procedures and attitudinal changes, different from traditional university approaches, have had positive outcomes for colleges serving Hispanic students and may serve to help make academic English operational in higher education.

- *Make academic English development part of the vision and mission of the institution.* Recognizing academic English as an indispensable tool for processing and expressing knowledge is essential in shaping a culture among Hispanic students that fosters appreciation of academic capital. A comprehensive approach is needed to address students with diverse linguistic experiences (Arciniega, 2010).
- *Value Hispanic students and their language backgrounds as an opportunity rather than a deficit.* According to Rios-Aguilar, Kiyama, Gravitt, and Moll (2011), bilingual students bring with them a robust language repertoire and diverse thinking for problem solving that, if framed well, promotes critical thinking in the classroom. Lea and Street (2006) have stressed that ignoring students' understandings of academic English is ignoring the relationship between students' identity and the institution's power of authority. Rather than evaluating student language production as good or bad, institutions should create a common understanding of both student and faculty language usage and also give a clear and explicit expectation of the academic English required in the field of consideration (Lea & Street, 2006). This requires open conversations among

faculty and between faculty and students on what academic English looks like in their specific courses.

- *Use a holistic approach to assess content and academic English proficiency of students.* As mentioned previously, the ELL identification does not apply in higher education, and a student's ability to produce academic English is often based on standardized assessment results such as SAT Critical Reading, the ACT's Compass test, or placement tests created by the institution (Bunch, Endris, Panayotova, Romero, & Llosa, 2011). Using these results without considering the academic, linguistic, and sociocultural backgrounds of students could result in misplacements, with some students never receiving the academic English support they need or being placed in ineffective remedial courses (Nuñez & Sparks, 2015). Although very limited research has been conducted regarding effective placement for Hispanic students and bilingual students in higher education, the integration of a student's background is known to be essential (Rios-Aguilar et al., 2011). Some universities have begun to use appreciative advising and self-assessments to find more information on their students' backgrounds (Bloom, Huston, & He, 2008; Sidman-Taveau & Karathanos-Aguilar, 2015). These practices are promising.

- *Create academic supports that weave together content knowledge and skills, literacy, and academic English.* Universities typically offer various types of academic support services, such as summer bridge programs, tutoring, and first-year seminars. Innovative academic support services for Hispanics might provide opportunities for students to apply the knowledge and skills of their educational program through internships while completing coursework or through supplemental instruction with attached scholarships (Santiago, Andrade, & Brown, 2004), although there is currently no documentation on the benefits of purposeful attention to academic English. Sándigo (2017) found that coaching tutors in academic English strategies increases the effectiveness of the strategies already in use. When tutors used strategies to develop academic English, they shifted their attention to the process and expression of knowledge from simple engagement and saw increased student accountability toward becoming independent learners. Academic English strategies should be part of the professional development of academic service staff whether instruction is given in or outside of the classroom (Sándigo, 2017).

- *Use instructional practices that facilitate the understanding and application of academic English.* These instructional practices engage students in speaking, listening, reading, writing, and inquiry in the classroom for the purpose of processing and expressing their understanding (Halliday, 1993). Academic English development strategies are specifically structured to express thoughts and to be challenged on the clarity and forms of those expressions; it is moving from interpersonal interactions to intrapersonal cognitive habits (Reznitskaya & Wilkinson, 2015).

The concept of operationalizing academic English in higher education is not yet common, but its importance in the academic achievement of Hispanic students is

indisputable. The focus on academic English in higher education should be dynamic and specific. Such is the challenge and also the opportunity for evaluating and improving institutional practices.

Academic English Strategies

Academic English strategies are focused on both cognitive engagement and expression of knowledge. Academic English strategies are differentiated from student engagement strategies by *purpose*. Academic English strategies are aimed at understanding academic concepts, whereas student engagement strategies focus on maintaining student attention and interest. There are vast numbers of language strategies, but if students do not receive feedback or explicit instruction on language, these strategies are just student engagement. For instance, turning to a classmate to discuss a topic is a student engagement strategy. Turning to a classmate to discuss a topic and having a checklist of vocabulary words that must be included in the discussion is an academic English strategy. Reflecting on a topic in a brief timed writing and then sharing the writing with a classmate is a student engagement strategy. Reflecting on a topic in a quick timed writing, sharing the writing with a classmate, and underlining the strongest sentence used in his or her quick write becomes an academic English strategy.

Academic English strategies also promote equity. They ensure full participation of all students. A diversity of voices builds understanding through different perspectives and ways of problem-solving. Academic English strategies offer multiple entry points through the integration of reading, writing, listening, and speaking so that all students can engage and participate (Angelis, Polsinelli, Rougle, & Shogan, 2016). The characteristics of academic English strategies could be described as the integration of several components: (1) opportunities to express knowledge and provide feedback on the effectiveness of this expression, (2) engagement of all students at once, (3) the use of more than one language modality (reading, writing, speaking, and reading), and (4) facilitation of critical thinking.

Use of an Essential Question

A good example of an effective academic English strategy is illustrated by the use of an *essential question* to help organize a student's thoughts. Essential questions "probe for deeper meaning and set the state for further questioning, ones that foster the development of critical thinking skills and higher order capabilities such as problem-solving and understanding of complex systems" (Owen Wilson, 2014). Essential questions encapsulate the main purpose of the learning, requiring students to synthesize, analyze, draw conclusions, and ultimately support or reject. They provoke further questions and they transfer to other applications (Wiggins & Wilbur,

2015). Essential questions provide a framework for organizing information and meeting the goals of the lesson.

Nonessential questions	Essential questions
What are descriptive and inferential statistics?	When should you use descriptive statistics versus inferential statistics?
What are the definitions of testing and assessment?	Name a possible situation for when testing should be used rather than assessment. Justify your answer.
What are the steps in graphing a quadratic equation?	What is the relationship between a graph of a quadratic function and its algebraic equation? What is a real-life example of quadratic functions and algebraic equations?
List the characteristics of sustainable forestry management.	What are some compatible economic uses of private and public land for sustainable forestry management in your own community? Explain.
In your own words, define academic English.	What is your definition for academic English based on the lecture and what implications does your definition have for your teaching philosophy?

Academic English also frontloads language as clues to identify when the lecture has moved from one concept to a new one and how these concepts relate to each other. If the essential question requires the comparison of two concepts, for instance, students should organize their notes in a compare-and-contrast structure. They should also listen for phrases that show similarities or differences to note how these may refer to the goal of the lesson. Essential questions also engage students to use their own schemata as they relate concepts to real-life situations, their own experiences, and previous learning, accessing language they already have from their background. An essential question can be deconstructed for students in need of academic English development as follows:

> Today we are going to define in our own words "academic English." We will talk about the challenges that make the definition of academic English difficult. We will also relate these challenges to the theories of language acquisition that we discussed in our previous class. At the end of the lecture and after some activities, you should be able to infer implications for your own definition of academic English in your instruction. The essential question for today is this: "What is your definition of academic English based on the lecture, and what implications does your definition have for your teaching philosophy?" You will answer this question in a quick write. I suggest that you annotate key ideas that will help you write a complete definition for academic English and that you leave some space to come back to those ideas and make inferences on instructional practices relevant to your definition.

Analysis of Text Structures

Text structures relate to an author's purpose and to genres – the why and the how of a text. The various genres, such as research, meta-analysis, literature reviews, and

peer-reviewed articles, may be confusing or different from university expectations. Including analysis of text structures provides opportunities to establish a common understanding of how genre guides purposes and formats. An example of this strategy is the use of abstract templates for class readings. During class discussion, the format or research design may be discussed or compared with some other type of genre to expand understanding of the various uses of literature in academia.

Reference	Anstrom et al. (2010)
Format/design	This text is an executive summary of a literature review written by George Washington University Center for Equity and Excellence in Education for the U.S. Department of Education. It contains a glossary of keywords, an introduction that frontloads the organization of the report, the rationale for the study, the methodology for the literature review, and an overview of the report.
Purpose/problem	This text summarizes and evaluates current literature on academic English to inform policymakers, researchers, and those interested in improving the education outcomes of English language learners. The review includes definitions for academic English, instruction of academic English across content areas, professional development, and further implications.
Key vocabulary/ variables	Academic English Academic literacy BICS and CALP Operationalization

Key points/ findings	Academic English definition
	    Challenges: (1) multiple systems from linguistics, content experts, social context perspectives, (2) complexity of academic English, and (3) few empirical investigations.
	Academic English instruction
	    Essential instructional features: academic vocabulary, grammar, and discourse structures common to specific content areas.
	Professional development for preservice teachers
	    Greater knowledge of language and language development is needed.
	    "Teaching standards, teacher competencies, and state policies typically do not answer the question of what teachers should know and be able to do with regard to AE in order to support student learning of it" (p. vii).

Conclusions	A tangible progress in defining AE has happened although there is no single definition. Three general themes characterize AE: contexts, content, and features. More professional development in language and language development must be included in programs for ELL instruction and subject area instruction.

Recommendations	Research priorities
	    Systematic approach for documenting practices and specific demands of language in different settings.
	        Empirical studies.
	        Documentation and evaluation of professional development programs.

Deconstructing Complex Sentences

Even though sentence complexity in middle and high school texts has decreased from an average of 20 words in the 1940s to 14 words now, or the equivalent of one or two clauses, texts used in universities are much more complex (Adams, 2010). Reading requires more than just knowing vocabulary. In fact, knowledge of vocabulary without the context of a sentence and discourse is limited. Reading comprehension requires an understanding of how clauses and phrases relate to the main idea of the sentence. It is at the sentence level that students demonstrate understanding of how content vocabulary is used in its different derivational forms (condensation vs. condensed) and where the semantics of vocabulary words (meaning in context) are understood.

Students who are developing academic English benefit from the modeling and practice of deconstructing complex sentences using their basic knowledge of grammar and punctuation. This is especially true of scientific writing, which tends to be dense, with long and complex sentences. Consider the following sentence from the scientific meta-analysis titled "Transport and Release of Chemicals from Plastics to the Environment and to Wildlife" by Teuten et al. (2009, p. 2028):

> Such chemicals are categorized into two groups: (i) hydrophobic chemicals that are absorbed from surrounding water owing to affinity of the chemicals for the hydrophobic surface of the plastics and (ii) additives, monomers and oligomers of the component molecules of the plastics.

Deconstructing complex sentences as a strategy assumes that professors intentionally include readings that use complex sentences in their instruction. For this strategy, grammar knowledge facilitates explanation of language usage; however, basic knowledge of clauses and phrases may suffice. For this, the professor selects with student suggestions a sentence that may initially be seen as difficult to comprehend. Then the sentence is projected or written on the board. The professor and later the students themselves identify the *who* and the *what* of the sentence (main idea). Then, they find the relationship of clauses and phrases to the main idea. Consider the following sentence:

> Because researchers from different philosophies and educational backgrounds approach [academic English] in very different ways, the range of conceptual frameworks and models varies from those with a primarily linguistic focus to those that emphasize the social context to those that emphasize use in specific content areas.

Deconstructing it may proceed as follows:

> One sentence of your reading caught my attention; I wonder if it caught yours too. Let us look at it together (have sentence written on the board). When I began reading it, I noticed that it began with the word *because*, which signals cause and effect. So after the word *because* I can expect to read the cause part of the sentence, which ends at the comma. The clause "because researchers from different philosophies and educational backgrounds approach [academic English] in very different ways" is the cause in this sentence. Next

comes the effect: "the range of conceptual frameworks and models varies from those with a primarily linguistic focus to those that emphasize the social context to those that emphasize use in specific content areas." *Because* signals a cause and an effect, so I know there will be two main ideas that relate to each other. In the first part, I find the main idea of the cause, "researchers approach academic English in different ways." In the second part of the sentence, after the comma, is the effect: "the range of conceptual frameworks and models varies." With simplicity, I may say that because researchers approach academic English in different ways, the range of conceptual frameworks and models varies. The rest of the sentence refers to the different approaches of researchers, which are those who have a linguistic focus, those who emphasize content, and those who emphasize social contexts. Please share with a partner your own interpretation of this sentence.

Using Exemplar Texts

Academic texts that are good examples of specific academic English expectations (written or oral) serve as a guide for students who are developing academic English. In a study on academic writing for graduate-level bilingual students, Sidman-Taveau and Karathnos-Aguilar (2015) found that reading academic texts rhetorically brought further knowledge of academic writing for the participating students. Further, in many situations, students did not know what was correct or what was incorrect. Examining texts for specific language usage or styles helps to develop academic English independently. For instance, if the student is misusing prepositions, the student can read an exemplar text and highlight how prepositions are used within an academic topic to inform his or her own use of prepositions in writing or speaking. Examples of academic English aspects that may be modeled by exemplar texts are as follows:

- Discourse
  - Components of genre
  - Use of transitional phrases
  - Formats (such as APA and MLA)
- Sentences
  - Passive and active sentences
  - Writing styles to reflect authority, argument, description, synthesis
  - Claims and opinions
  - Grammar such as use of prepositions in phrases common in the subject area
  - First/third person
- Words
  - Use of content vocabulary
  - Recognition of different derivational forms

Words in Contexts

Of the three complexities of language – discourse, sentence complexity, and words – words receive the greatest attention. In higher education, students are expected to use precise vocabulary to avoid circumlocution and to give the intended connotation of words. Bilingual students, especially those with ample vocabulary in Spanish, tend

to have an ample repertoire of words that may transfer as academic words. Words that may be considered mundane in Spanish may be cognates with academic value in English (penúltimo–penultimate; masticar–masticate; grave–grave). To illustrate, the Spanish cognates in the following sentences are underlined:

> *Academic English* is a *complex concept* that has been *defined* and *operationalized* from a *variety* of *perspectives* and for a *variety* of *purposes*. AE can be viewed as *part* of overall *English language* proficiency which also *includes* more *social uses* of *language* both inside and outside the school *environment*.

Hispanic students who are bilingual often feel confident in their knowledge of words but have difficulties with the grammatical structures required to correctly use the target vocabulary in context (Sidman-Taveau & Karathanos-Aguilar, 2015). They also struggle with using words for the intent voice. For instance, they may use the Spanish cognate *inscribed*, a word that is common in Spanish, rather than *enrolled* in an informal letter. They may also use circumlocution when they do not know a precise term to describe an action or a subject. It is then important to note that learning the meaning of vocabulary by itself is not sufficient to own the words (Beck, 2013). According to Halliday (1970), "the basic unit of language in use is not a word or a sentence, but a 'text'" (p. 160). A text may consist of only one word, a phrase, or discourse, but it functions as a communicative act. Therefore, it is critical to structure opportunities for students to explain concepts using the target vocabulary.

The ability to recognize words in context engages students in using vocabulary in its different derivational forms and within sentences that depict the semantics of the targeted vocabulary. An academic English strategy that provides opportunities to use key vocabulary in context is the use of a short video clip. For this, use of a short video clip (no more than 2 min) that illustrate a process or event. Turn the volume off. Group students in partners and at your signal, ask them to explain to each other what they see. Provide students with a checklist of vocabulary words. As they retell the video, they mark the words they have used and their derivational form (solution, solvent, dissolved). You may also use video clip for them to describe.

The academic English strategies presented in this chapter – essential questions, analysis of text structures, deconstruction of complex sentences, exemplar texts, and words in context – are examples meant to bring relevance to the three levels of academic English complexity (discourse, sentence complexity, and words). However, academic English strategies are rarely used alone; rather, they are combined throughout the lesson as students process the information and refine their understandings. This fact does not suggest that faculty should develop a great repertoire of academic English strategies to empower Hispanic students. Rather, it should encourage faculty to frame their instruction within the four characteristics of academic English previously mentioned: (1) purposefully structure opportunities to express knowledge and to provide feedback on the effectiveness of this expression, (2) engage all students at once to hear diverse voices, (3) use more than one language modality (reading, writing, speaking, and reading), and (4) use these opportunities to facilitate critical thinking. These four characteristics together validate instructional actions that lead to academic English development.

Conclusion

The rate of college degree attainment for Hispanic students is important for the economic stability of the country, but especially for the generational advancement of Hispanics. The incremental increase in college enrollment of Hispanics is a step forward but not enough to close the educational gap for Hispanics. Institutions should recreate their support systems to meet the needs of Hispanic students, including placing academic English at the center of their academic support systems.

Academic English varies according to its context, so it must be developed within the context of the university classroom, which is influenced by the instructor's practices, student backgrounds, and the content being taught (Sándigo, 2017). This would require a nontraditional mindset, to view linguistically diverse students as "diverse" students and not as "deficient" students. This happens through gaining a better understanding of how academic language is defined by students and their professors and then defining the academic English within their academic contexts through open and explicit discussions on what constitutes the language needed to process and express the knowledge and skills of the course goals.

The use of academic English strategies provides structured opportunities for Hispanic students to process and express knowledge using language appropriate to academia, gives students a platform for diverse thinking, and encourages critical thinking. Academic English development strategies are important and so is the basic knowledge of the relationship between academic discourse, sentence complexity, and words in specific academic settings.

Further research is needed, including collection and analysis of data regarding academic English, but meanwhile colleges and universities that have elected to serve Hispanic students are moving towards innovative instructional approaches. Operationalizing academic English strategies can be an effective means of empowering Hispanics in postsecondary settings.

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