

# Introducing Linguistics into Your Curriculum

## Offering language science can strengthen student preparation

**BY KEITH MASON**

Linguistics, the scientific study of language, deserves a presence in the high school curriculum because language is a basic human form of communication. Students often explore natural sciences, math, language arts, world languages, physical education, computer science, social studies, the arts and practical arts. An elective or required course in linguistics *per se* can certainly complement student learning in all these subjects.

Studies have addressed the formal introduction of linguistics at the secondary level. Loosen (2014) describes a semester-length linguistics course taught at a Milwaukee high school. Larson, Denham & Lobeck (forthcoming) defends linguistics, and especially AP Linguistics, in the high school curriculum.

Language is undoubtedly present in K-12 coursework. Nevertheless, the tenets of linguistics are barely treated in secondary learning. Students may glean linguistic knowledge indirectly in their regular courses. Because the various branches of linguistics maintain their own goals, we can argue that students can benefit from a deeper understanding of how and why language is the way it is. A more deliberate approach would ensure that students become knowledgeable about terminology, concepts, language structure, language development and variation in a systematic way that are inherently part of the field of linguistics.

Students who are not college bound will also benefit from linguistics. If these students go directly to the work force, they can gain essential communication-friendly knowledge from an

in- depth study of linguistics. Employers report a lack of speaking or writing skills in employees. Linguistics can help in these two areas and more.

I was exposed to various aspects of language and linguistics during my childhood. My grandparents spoke Neapolitan Italian dialect in my presence, piquing my interest in language and culture. We have students with a heritage language in their background. My junior high Spanish teacher taught us a pronunciation unit using the tenets of articulatory phonetics. I also read a book *The Story of Latin and the Romance Languages* by Mario Pei and a detailed encyclopedia chapter about linguistics. These led me to pursue three degrees in Romance languages and linguistics and a career teaching these subjects in high schools and colleges. Gaston Dorren's book *Lingo: Around Europe in Sixty Languages* could certainly enhance students' learning about European languages in an engaging way while not discounting other languages outside of the European context.

Many high school students are similar to me in that they are deeply interested in language and how languages developed, are structured and are used. Linguistic coursework in secondary school would answer a need for students who have particular aptitude in language yet would also benefit all students.

### **Linguistics: General and Specialized**

General linguistics is traditionally divided into four main areas: phonology (sounds), morphology (forms), syntax (grammar and word order) and semantics (meaning). While aspects of these are integrated into the curriculum in varying forms, a systematic study of linguistics is uncommon in high school. It is usually reserved for undergraduate and graduate college curricula. But why not begin linguistics earlier because language is so basic to the human experience?

Other sub branches of linguistics that can also be considered include anthropological linguistics, sociolinguistics, psycholinguistics, applied linguistics, historical linguistics, comparative linguistics and computational linguistics, among others. These sub branches invite natural interdisciplinary lessons. The specialty areas of linguistics can be touched upon in a semester or year-long linguistics course. Instructor background, student interest and interdisciplinary initiatives can weigh in on which specialties to include and to what extent. For example, treating the psychology of language or psycholinguistics is natural within a high school psychology course. Acoustic phonetics is a perfect topic in a physics course as part of an acoustics unit. The University of Michigan allows undergraduate students to elect phonetics to fulfill a science requirement indicating that a branch of linguistics is indeed regarded as similar to natural sciences such as biology or chemistry.

### **Key Ideas for Implementing Linguistics**

Consider the following facts about linguistics that call for its inclusion in secondary curricula:

- Linguistics is the science of language similar to other natural sciences and social sciences that explore the verification of hypotheses through observation.
- Because of the prevalence of natural speech and writing, linguists and students have numerous opportunities for language analysis.
- Major concepts for analysis include speech sounds, forms, words, grammar, meaning and variation.
- Linguistics comprises humanities, social sciences and math/science depending on the areas of linguistics and invites bridges between disciplines.
- Human language is a reflection of a multilingual and multicultural world.

- Linguistics can assist with foreign language study and with translating, interpreting, language teaching, writing, publishing, journalism and diplomacy.
- Offering linguistics at the secondary level invites articulation between high school and college and better prepares students interested in college-level linguistics programs.
- Linguistics is not familiar to many people yet it explains how languages are structured and how they developed and are used.
- World language students can potentially become proficient in language-specific linguistics such as Spanish linguistics or Japanese linguistics or in a language family such as Romance linguistics or Polynesian linguistics.
- Ambiguity lies in the word "linguistic" because it denotes in adjectival form anything pertaining to language. If you add an -s, it denotes an entire fascinating field of endeavor, linguistics.

The “Making It Happen” sidebar outlines key steps that you can take to make linguistics a reality in your school.

#### **MAKING IT HAPPEN [graphic spec: set off as sidebar]**

- Poll your students, teachers and other administrators as well as principals in other districts regarding linguistics in the high school curriculum
- Consult with linguistics professors at local colleges or universities to get their input
- Review the Resources studies to get a handle on the issues
- Have your curriculum committee discuss a linguistics initiative
- Consider having a co-curricular linguistics club that involves students in Linguistics Olympiads

- Devise a plan to include linguistics concepts in already existing courses
- Discuss a separate semester- or year-long linguistics course and how it would fit into your existing curriculum including who could teach it
- Develop a plan for an eventual AP Linguistics course if student interest exists
- Set priorities for coursework such as the four areas of general linguistics as basic and additional specialized topics if time permits
- Get involved with your state's department of education to help them establish teacher licensure and state standards for linguistics courses

### **Logistics for Linguistics in the Curriculum**

The content of a college-level introductory linguistics course, often numbered 101, is a great place to start in developing high school level linguistics courses (cf. Fromkin, Rodman & Hyams 2007). Linguistics can be considered an extension of world language instruction, language arts, social studies or science because it is a multifaceted discipline.

The length of a linguistics course will determine how much material can be realistically treated. The four main areas of general linguistics, phonology, morphology, syntax and semantics, should be considered essential prerequisites for studying advanced material inherent in linguistic specialty areas such as sociolinguistics or historical linguistics.

In terms of instructors, it would be great to utilize faculty that have formally studied linguistics. Teacher certification for linguistics to my knowledge has not been determined in any of the states but this may change once linguistics are desired in K-12 teaching. Introducing basic linguistic concepts early in student learning can be part of spiral learning. We can return to more

complex concepts later on and keep spiraling back to linguistics until students can handle more complex material and utilize higher level thinking skills.

As a precursor to offering linguistics courses, a linguistics club that sponsors Linguistic Olympiads can be accomplished as a co-curricular initiative. These competitions can invite linguistic problem-solving that could lead to regular course offerings, especially if students are successful. The North American Computational Linguistics Olympiad (NACLO) sponsors a contest in which high school students solve linguistic puzzles (see <http://www.nacloweb.org>).

The Linguistic Society of America has formed a committee, chaired by Richard Larson of Stony Brook University, whose goal is to have the College Board sponsor an Advanced Placement Linguistics course and test. Larson et al (in press) describes the goals of this initiative and the logistics of its implementation. When initiating an AP course in any subject area, we must ensure that introductory and intermediate course work is in place to prepare students for the highly demanding advanced AP course material.

An interest in linguistics in high school indicates that such courses need to be approved at the state and local levels. This of course would require teacher licensure for certification requirements. What requirements would be needed? A major in linguistics? An endorsement added to an already acquired regular certificate? Methods of teaching linguistics courses at colleges and universities?

Linguistics can be integrated into curricula already in place. Table 1 outlines various school subjects and how linguistic concepts can be incorporated to improve course content. It is important to provide students a variety of linguistic concepts so that we can reach students of varying talents and interests. This approach would be a combination of boosting linguistic content in already existing courses and eventually adding one or more separate course offerings.

These courses could serve to fulfill a language arts, science, STEM or social studies requirement, at least at the start.

### **Family and Consumer Sciences**

Etymologies of foods prepared, whether in English or foreign names.

### **Language Arts**

Phonetics, phonology, morphology, syntax, semantics, dialectology and etymology of English.

### **Mathematics**

Acoustic phonetics, statistical analysis of language data and the use of measurements in articulatory phonetics are applications of math in linguistics.

### **Music and Performing Arts**

Italian musical terms, etymology of instrument names, analysis of foreign language lyrics.

### **Physical and Health Education**

Etymology of health terms, anatomical terms and foreign dance names.

### **Psychology**

Auditory or perceptual phonetics deals with how speech is processed by the brain and can undoubtedly be addressed in general psychology courses.

### **Science**

Articulatory phonetics and auditory phonetics in physiology courses, acoustic phonetics in physics courses.

### **Social Studies**

Anthropological linguistics, language and culture, speech development, sociolinguistics.

### **STEM or STEAM**

STEM is an acronym that stands for science, technology, engineering and mathematics and STEAM adds an A for Arts. Linguistics represents a large area of language science with many interdisciplinary implications. Many scientific approaches used in STEAM such as hypothesis formulation, data collection and analysis and using human subjects can be utilized in linguistics.

### **Visual Arts**

Etymology of art vocabulary, especially foreign terms.

### **World Languages**

Articulatory phonetics applied to English and target language, morphology, syntax, grammar, semantics, dialectology and etymology. Using the tenets of applied linguistics to enhance language learning.

### **Linguistics: Curricular Considerations**

We can argue for separate high school linguistics offerings that prepare students for AP Linguistics or college-level linguistics. While Understanding by Design is the prescribed framework for all AP courses, we must not discount other frameworks that support linguistics in the curriculum. As Wiggins & McTighe (2005, p. 7) explain: “*Understanding by Design* is not a prescriptive program. It is a way of thinking more purposefully and carefully about the nature of *any* design that has understanding as the goal.”

The Multiple Intelligences can shed light on those students whose strengths are in language, the verbal-linguistic intelligence. My experience with language predates the first research by Howard Gardner who developed the framework. I discovered my linguistic abilities on my own. Other intelligences can also be utilized tied to linguistics such as logical-mathematical, bodily-kinesthetic and spatial intelligences.

Learning styles, especially verbal, auditory and reading/writing as in VARK, can certainly align to linguistics and related skills. I found my auditory skills quite acute; I could replicate and perceive foreign sounds, had perfect musical pitch and could imitate accents and speech patterns with ease. I am sure that you have similar students that would blossom by honing in on linguistics.

Cooperative learning provides students opportunities to interact, the same way we do in daily conversation. Discourse analysis and sociolinguistics are equipped to handle conversational analysis. Differentiation offers opportunities within linguistics. Some students are better with speech sounds, some with grammar, some with noticing variations and some with meaning and nuance. Students who elect courses in anthropology, science, sociology or history, for example, can bridge their learning to the science of language within their respective course offerings. Utilizing a variety of curricular frameworks to develop linguistic concepts in students is key to designing units and lessons for effective teaching.

### **Summary**

Introducing linguistics in high schools throughout the United States would certainly take much initiative and effort. Yet the result could be a student population who understands how language works, who would enter college and the work force with a deeper understanding of language concepts.

### **Resources**

Dorren, Gaston. 2015. *Lingo: Around Europe in Sixty Languages*. New York: Atlantic Monthly Press.

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- Loosen, Suzanne. 2014. High school linguistics: A secondary school elective course. *Language* 90, 4, 258-273.
- Pei, Mario. 1976. *The Story of Latin and the Romance Languages*. New York: Harper & Row.
- Wiggins, Grant & Jay McTighe. 2005. *Understanding by Design*, 2<sup>nd</sup> ed. Alexandria: Association for Supervision and Curriculum Development.

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