A little Linguistics goes a Long Way in the Latin Classroom

What are the benefits to incorporating Linguistics into your teaching methods?
- Provides a more natural means of language acquisition that mirrors how we learn a first language, which leads to better long-term retention.
- Drastically reduces the amount of rote memorization required for beginning students.
- Gives the students a deeper understanding of how language changes over time, thereby making it far easier for them to read Archaic, Epigraphic, or Post-Classical texts.
- Teaches students to segment words habitually, which naturally encourages them to approach unfamiliar words with strategies that give them a better chance of coming to a successful solution.

Resources:
- **Sihler, A.** 1998. *New Comparative Grammar of Greek and Latin*. Oxford.

Sihler is *the* bible of Classical linguistics. This laudable tome is worth its weight in gold if you are interested in incorporating more linguistics into your classroom. Sihler's modern and learned approach to the histories of Greek and Latin provides a thorough reference on the subject. Without training in linguistics, however, this text is not very approachable and will take some getting used to.

- **Buck, C.D.** 1933. *Comparative Grammar of Greek and Latin.* Chicago.

This is the "old" that Sihler makes reference to with his "*New.*" Buck's original volume is, unfortunately, now very dated. Many of his explanations are based more on mnemonics and pedagogical shortcuts than on actual linguistics. However, there is some useful information here and it is very approachable to the uninitiated.

- **Palmer, L.** 1988. *The Latin Language.* Oklahoma.
  Palmer, L. 1996. *The Greek Language.* Oklahoma.

These are the go-to histories of the Greek and Latin languages. They do not contain more than a few elements of the linguistic development of each language, but their primary value is in providing a narrative of the history of the Greek and Latin languages.

- **Oniga, R.**, Schifano, trans. 2014. *Latin: A Linguistic Introduction*. Oxford.

This is the newest entry on the list and has some value. The book's introduction to roots and markers is worthwhile; as are its treatments of phonology and nouns. The sections on verbs, however, are practically useless from a linguistic perspective.

How to start:
1. Teach the concepts of **bases** and **markers**:
   Base: a reductive term that simplifies the linguistic distinction between root and stem in a way that allows students to produce final forms immediately. In the context of nouns and adjectives, base is typically equivalent to the stem (e.g. rosa/, reg/, and amīco/). In the context of verbs, base generally refers to the root (e.g. ag/, es/)
   Marker: a morpheme, i.e. an indicator of morphological information: there are markers for case/#, person/#, tense, mood, etc. (e.g., -t = 3rd pers. sg.; -nt = 3rd pers. pl.; -ī = dat. sg.; -se = inf. marker)

2. You will next need to cover a few **phonological rules**. At first, these seem like annoying extra information, but as we continue to apply them in many settings they show how useful they can be.

Consonants:
- **Intervocalic s**: rhotacizes to -r-:
    o exx: amā/ + -se > _____ (cf. es/se); ges/ + -ō > _____ (cf. ges/tum)
    o In English, cf. "was" and "were" (orig. "wæs" and "wære")
- **Dental consonants** drop before **s**:
    o exx: veritāt/ + -s > _____ ; amā/ + -nt- + -s > _____
- **Vocalic M: "M̥"**
    o M̥ after vowels > -m: rosa/ + M̥ > _____
    o M̥ after consonants > -em: veritāt/ + M̥ > _____
- **Assimilation:**
    o exx: pot/sum > _____; fer/se > _____; vel/se > _____
- **Nasalization:** word-final -*n* (and sometimes -*m*) drop after being nasalized
    o ex: ration/ > ratio^n > _____; cf. French: *un bon chien*

Vowels:
- **Vowel shortening:** A long vowel shortens before:
    o another vowel: ex: movē/ō > _____
    o word-final *m, t,* and *r*: exx: movē/t > _____; note: gen. sing. imperātōris but nom. sing. imperātor
    o before -*nt* and –*nd*: exx: movē/nd/us > _____; movē/nt/is > _____
- **Vowel weakening:** Short vowels weaken to other short vowels in certain environments.
    o In unaccented final syllables, o > u; e > i
       exx: *ca-p**e**t > _____; a-mī-c**o**s > _____
    o In open, unaccented medial syllables, a, e, o, u > i
       exx: *a-n**a**-mos > _____; *no-v**o**-tas > _____; *ca-p**u**-tis > _____
    o In closed, unaccented medial syllables, a > e.
       exx: *re-c**a**p-tum > _____

- **Vowel lowering:** the high vowel ĭ will lower to the medial vowel **e** when:
  - before **r**: ex: amā/bi/ris > _____ (cf. 2nd. sing. fut. act. amā/bi/s)
  - word-final: ex: *mari/ > _____ (cf. gen. pl. mari/um)
- **Monophthongization:** a diphthong becomes a single "phthong"
  - ex: d**eic**ō (Old Lat.) > _____; amīco/ī > _____; amīcō/ī > _____

3. Teach the PIE Theme Vowel ($^o/_e$) pattern. Do not be fooled by the way most textbooks talk about "theme vowels" for each conjugation (1st = ā, 2nd = ē, etc.), those are really just stem vowels, combining vowels, or contractions of the two. The true original PIE Theme vowel followed an ablaut variation for the various persons and numbers:

$^o/_e$ = **PIE Theme Vowel**   **Latin variation on Theme Vowel**

	sg.	pl.
1st	o	o
2nd	e	e
3rd	e	o

	sg.	pl.
1st	o	e
2nd	e	e
3rd	e	o

Payoff:

As you introduce various morphological information throughout the course, the students' knowledge of these concepts drastically reduces the amount of stuff they have to "*just* memorize." You can refer to the linguistic concepts to show them how to *build* otherwise complex paradigms.

Imperfect of *sum, esse*:
- Combine the stem with the tense marker "ā"; allow for rhotacism
- Add the secondary personal endings (M̥ for 1st sing.), the usual vowels undergo shortening
- We already encountered this tense marker ("ā") in the other imperfect marker (ēbā), which is really an extended version of this one.

> **Imperfect: es/ + ā + 2° Pers. Markers**

sum, esse – **Imperfect Indicative**

	sing.	plural
1st		
2nd		
3rd		

Future of *sum, esse***:**
-    Combine the stem with the standard PIE thematic vowel $^o/_e$ (o/e/e/e/e/o) as a tense marker; allow for rhotacism
-    Add the present system personal endings, the usual vowels undergo weakening
-    This type of future marker (which we will also encounter later), is derived from the original PIE Subjunctive. That original subjunctive marker was "increase one vowel grade." Since *sum, esse* is athematic (as we talked about the other day), so increase one vowel grade takes you from Zero Grade (which the athematic forms are) to Basic Grade (which the PIE theme vowels are).

> **Future: es/ + $^o/_e$ + 1° Pers. Markers**

sum, esse – **Future Indicative**

	sing.	**plural**
1st		
2nd		
3rd		

For noun morphology, knowledge of these principles allows you in most cases to simplify all 5 declensions into a single marker (or, at most, 2):

Accusative singular of *ALL* **M/F nouns: -M̥**

puella/ + **-M̥** > _____

amīco/ + **-M̥** > _____ > _____ (allow for weakening!)

reg/ + **-M̥** > _____

frūctu/ + **-M̥** > _____

re/ + **-M̥** > _____

Accusative plural of *ALL* **M/F nouns: -M̥s** : -Vms > -Vns > -V_s > -LVs (V = vowel)

puella/ + **-M̥s** > _____ > _____

amīco/ + **-M̥s** > _____ > _____

reg/ + **-M̥s** > _____ > _____

frūctu/ + **-M̥s** > _____ > _____

re/ + **-M̥s** > _____ > _____

Knowledge of vowel weakening and rhotacism makes otherwise "irregular" noun paradigms completely regular:

Neuter 3rd Decl. Noun: **corpos/**

Nom./Acc. sing.: corpos/Ø > _____

Gen. sing.: corpos/is > _____

Masc. 3rd Decl. Noun: **milet/**

Nom. sing.: milet/s > _____

Gen. sing.: milet/is > _____

As a result of this, the use of "Base" over traditional dictionary entries for nouns (nom. sing., gen. sing.) reduces the amount of lexical information students have to learn for each word:

exx: **reg/** for *rex, regis*; **tempos/** for *tempus, temporis*; **homon/** for *homo, hominis*, etc.

Linguistic Principles behind the First and Second Declensions (M/F Nouns)

Think of the nouns of the first declension as having a stem *ending* in "**-a**":

      rosa/ = rosa, rosae, f.   poēta/ = poēta, poētae, m.

Think of the nouns of the second declension as having a stem *ending* in "**-o**":

      amīco/ = amicus, amīcī, m.   puero/ = puer, puerī, m. [note: think of this as an "r-stem"]

You can approach the paradigm by thinking of the markers for each case and number as follows:

Case	Singular		Plural	
Nominative	**-Ø** (-a and -r bases) / **-s** (others)		**-ī**	
	-a/Ø > **-a**	-o/s > **-us** -ro/Ø > -re > **-r**	-a/ī > **-ae** (**L**, too, see below)	-o/ī > **-ī**
Genitive	**-Lī** (-a bases) / **-ī** (-o bases) [-a bases: orig. **-Ls**, hence the L with -ī]		orig. **-um**, **-Ls** added before that	
	= -ā/ī > **-ae**	-o/ī > **-ī**	-a/Ls/um > -āsum > **-ārum**	-o/Ls/um > -ōsum > **-ōrum**
Dative	**-Lī**		**-īs**	
	-ā/ī > **-ae**	**-ō/ī** > **-ō**	-a/īs > **-īs**	-o/īs > **-īs**
Accusative	**-M̥**		**-M̥s =**	
	-a/M̥ > **-am**	-o/M̥ > -om > **-um**	-a/M̥s > -ams > -ans > -a_s > **-ās**	-o/M̥s > -oms > -ons > -o_s > **-ōs**
Ablative	**-L** (orig. **-Ld**, the d is later dropped)		**-īs**	
	-a/L > **-ā**	-o/L > **-ō**	-a/īs > **-īs**	-o/īs > **-īs**
Vocative	**-Ø**		**-ī**	
	-a/Ø > **-a**	-o/Ø > **-e** -ro/Ø > -re > **-r**	-a/ī > **-ae**	-o/ī > **-ī**

Key: "L" = "lengthen vowel"; "Ø" = "nothing"

Explanatory notes**:**
1. Vowel weakening: short vowels often weaken in predictable patterns: for now we'll focus on short "o": when unaccented, **-ŏ > -u**, as it does in the final syllables in the Nom. and Acc. sing. of the o-stem nouns
2. Nom. sing. of the o-stem nouns: for non r-stems, see vowel weakening, above. For "r-stems," it is important to understand that the stem-final "o" is really just a combining vowel. From PIE, Latin inherits a "Ø" marker for the Nom. sing. of all r-stem nouns (as we'll see in other declensions, too. First, the –o Ablauts to short e-grade (-ro > -re); next, the short "e" is dropped through apocope. [Important: v. on **Sakros Law**, below]

3. Gen. sing. **-Ls** is the original *a*-stem noun ending inherited from PIE and you see it in old inscriptions; it is also retained in legal phrases, such as *pater **familiās*** = "father **of the family**"
4. Long and short vowels combine with –i and –ī in different ways:
        -āi > -ae   **-ăī > -ī**   (cf. Dat. sing. to Dat. pl. a-stem nouns)
        -ōī > -ō   **-oī, -oi > -ī**   (cf. Dat. sing. to Gen. sing. o-stem nouns)
        The process that results in –ī in these cases is called "monophthongization"
5. For the Gen. sing. and Nom. pl. in the a-stem nouns the ending **-ī** is borrowed from the o-stem nouns. However, at some point there must have been a lengthening of the *a* in the Nom. pl. before the glide morphed into the diphthong, since **-ăi** should have produced **-ī**. Older examples have -Ls as the Nom. pl., so the -L probably originates from there.
6. In Latin: **-Vms > -Vns > -V_s > -LVs** (V = vowel), the loss of *n* when followed by *s* is a regular change (all dentals do this as we'll see soon), and the lengthening of the vowel after the loss of a consonant is called "compensatory lengthening"
7. Voc. sing.: cf. on the nom. sing. for the o-stems, above, but an addition of "Ø" to an o-stem noun leads to a change of vowel grade (Ablaut) to short-e grade, the short "e" is then lost from the r-stems through apocope, as noted above.

Sakros Law: When the final syllables of r-stem nouns are dropped from the Nom. and Voc. singular forms, an "e" is sometimes inserted internally to the stem when an "uncomfortable consonant cluster" results at the end of the stem. Compare these examples below:
        viro/Ø > vir   [no problem here, no change]
        puero/Ø > puer   [no problem here, no change]
        agro/Ø > agr > ag**e**r [consonant cluster, "e" inserted into base]

Latin Word Formation and Etymology
(Based on Vocab up to Ch. 15 of Wheelock)

Suffixation:

Word Stems:

    Verb Roots: **ex:**   agō, agere, ēgī, actum   **Root:_____**

    (rhotacism)   gerō, gerere, gessī, gestum   **Root:_____**

    (nasal infix)   vincō, vincere, vīcī, victum   **Root:_____**

    Noun and Adjective Stems: usually only require the removal of case endings and/or the suffixes we are about to learn.

NOUN FORMATION:
Deverbal Nouns: nouns formed from verb stems:
    -tor, -tōris; -trix, -trīcis: *agent* forming suffix: "one who does..."
        doctor, doctōris:
        victor, victōris:
        amātor, amātōris:
        adiūtor, adiūtōris:
        creātrix, creātrīcis:
    -or, -ōris: suffix that denotes *activity*, *condition* or *state*: "the state or condition of..."
        amor, amōris:
        error, errōris:
        timor, timōris:
    -iō, -iōnis; -tiō, -tiōnis; -tus, -tūs*: *resultative* suffix: "the result of..."
        audītio, audītiōnis:
        cōgitatio, -tiōnis:
    -men, -minis; -mentum, -mentī; -bulum, -ī; -(c)ulum, ī; -brum, ī; -crum, ī; -trum, ī: suffixes that denote *means*, *instrument*, *involuntary agent*, *act*: "means of...", "instrument of...", "one/thing that is...", "the act of..."
    (instrument) iūmentum, -ī: (think: *iug-*)
    (invol. agent) agmen, agminis:
    (act)   curriculum, -ī:

Denominative Nouns: nouns formed from other noun stems:
    -tas, -tātis; -tūs, -tutis; -(t)ium, -ī; -mōnium, -ī; -(t)ia, -ae; -īna, -ae: suffixes that denote: *condition*, *characteristic, act*, or *office*: "condition of...", "characteristic of...", "act of..", "office of..."
    (characteristic) virtūs, -tutis:
    (characteristic) cīvitās, -tatis:
    (condition) disciplīna, -ae:
    (condition) pueritia, -ae:
    (act)   medicīna, -ae:
    (condition) mātrimōnium, -ī:

-ātus, -ātūs*: suffix that denotes *office*: "office of...", "____ship"
        consulātus, -ātūs:
        magistrātus, -ātūs:

Diminutives: nouns or adjectives formed from nouns or adjectives that denote *smallness*, but can also carry the connotations of *pity*, *contempt*, or *endearment*. The suffixes will form any gender (us/a/um), but will usually retain the gender of the noun stem that they are attached to.
    -lus/a/um; -ulus/a/um; -culus/a/um; -ellus/a/um: "little..."
        nāvicula, -ae:
        ōsculum, -ī:
        libellus, -ī:
        adulēscentulus, -ī:

Deadjectival Nouns: Nouns formed from adjective stems:
    -ia, -iae; -tia, -tiae, -tās, -tatis; -tūdō, -tūdinis: abstract forming suffixes that denote *quality* or *condition*: "quality of...", "condition of..."
        amīcitia, -ae:
        solitūdō, -tūdinis:
        magnitūdō, -tūdinis:
        hūmānitās, -tatis:
        paucitās, -tatis:

ADJECTIVE FORMATION:
Deverbal Adjectives:
    -ilis/e*; -bilis/e*; -tilis/e*: denote *capability*: "able to be...", "able to..."
        facilis/e:
        stabilis/e:
    -ax, -ācis*: denotes *tendency* (usu. excessive): "likely to...", "having a tendency to..."
        audax, audācis:
        tenax, tenācis:
    -idus/a/um: denotes a *state* or *settled condition*: "being in a condition of..."
        timidus/a/um:
        vividus/a/um:

Denominative Adjectives: adjectives derived from noun stems:
    -ōsus/a/um: denotes *fullness*: "full of..."
        perīculōsus/a/um:
        ōtiōsus/a/um:
        cōpiōsus/a/um:
        insidiōsus/a/um:
    -tus/a/um; -ātus/a/um: denote *resource* or *supply*: "provided with...", "having..."
        iūstus/a/um:
        lītterātus/a/um:
    -eus/a/um: denotes *material* or *characteristic*: "made of...", "characteristic of..."
        roseus/a/um:
        virgineus/a/um:

Suffixes that form Adjectives from Nouns *or* other Adjectives: most adjectives are formed from any of the following suffixes, which all denote *pertinence* or *belonging*: "pertaining to...", "belonging to..": **-nus/a/um; -ānus/a/um; -āneus/a/um; -ēnus/a/um; -īnus/a/um; -āris/e; -ālis/e; -ēlis/e; -īlis/e; -ilis/e, -ūlis/e; -ius/a/um; -ārius/a/um; (i)cius/a/um; -ter/a/um; -tris/e; -ester/a/um; -estris/e; -estis/e; -ēnsis/e; -(i)cus/a/um; -(i)timus/a/um; -(t)īvus/a/um**; the stems of proper nouns often receive the following, as well as many of the above: **-aeus/a/um; -ēus/a/um; -eius/a/um; -ōus/a/um; -(i)acus/a/um; -issus/a/um.**

> patrius/a/um:
> nāvālis/e:
> urbānus/a/um:
> puerīlis/e:
> agrārius/a/um:
> annālis/e:

VERB FORMATION
Denominative Verbs:

-**1st Conjugation:** add connecting vowel "ā" + verb endings. Usually denotes the process of *making*, *doing*, or *forcing the action on someone/something*: "to do...", "to make...", "to make someone/something...", "to force someone/something to...", etc.

> bellō, -āre:
> iūrō, -āre:
> nominō, -āre:
> locō, -āre:
> singō, -āre:

-**2nd Conjugation:** again, simply add the connecting vowel "ē" + verb endings. Usually denotes *a state of being* or *becoming*. These verbs are usually intransitive.

> salveō, -ēre:

-**3rd Conj.:** usually derived from nouns of the 4th declension* on the pattern: -uō, -uere.

-**4th Conjugation:** usually derived from nouns of the 3rd declension.

> partiō, -īre:

Deverbal Verbs:

-**Inceptive/Inchoative Verbs:** the suffix "-scō, -scere" denotes *beginning an action* or *coming into a state of being*.

> timēscō, -ere:
> cresco, -ere:

-**Frequentative/Intensive Verbs:** the suffix "-(i)tō, -(i)tāre" denotes *repeated* or *intensified action*.

> agitō, -āre:
> iactō, -āre:
> ventō, -āre:

COMPOUND WORDS (esp. Verbs): we will later discuss compound verbs more specifically, but, for now, here are some prefixes that are commonly used to form compound verbs. One note: the internal stem vowels of verbs sometimes undergo weakening or vowel gradation (ablaut) when a prefix is added to the verb. Most common changes: a→i, e→i.

    ā-/ab-/abs-: "from", "away", "away from"
        āmittō, -ere:
        absum, abesse:
        abdūcō, -ere:
    ad-: "toward", "to", "at", "against", "in addition to", often just intensive; will assimilate!
        advocō, -āre:
        adsum, adesse:
        aggerō, -ere:
    circum-: "around"
        circumveniō, -īre:
        circumdūcō, -ere:
    con-, cō-: (prefix form of *cum*) "with", "together", or often intensive: "thoroughly", "completely"; often assimilates!
        coniungō, -ere:
        collocō, -āre:
        contineō, -ēre:
        cōgō, -ere:
    dē-: "from", "down (from)", "to cease...", "uttermost", "removal"
        dēscribō, -ere:
        dētrahō, -ere:
        dēsum, dēesse:
    ex-, e-: "out of", "out from", "out", "thoroughly", "utterly", "completely"
        extrahō, -ere:
        efficiō, -ere:
        ēdūcō, -ere:
    in-: "in", "into", "on", "toward"; often assimilates!
        incurrō, -ere:
        invideō, -ēre:
        inveniō, -īre:
      - as a prefix for adjectives, adverbs, and some nouns: "NOT" (privative)
        inhūmānus/a/um:
        insānus/a/um:
    per-: "through", "thoroughly", "completely"
        perfugiō, -ere:
        perdūcō, -ere:
        perficiō, -ere:
    other easy prefixes: ambi- "around", "about"; **ante-** "before"; **dis-** "apart", "at intervals"; **inter-** "between", "among"; **intro-** "within", "inside"; **ob-** "toward", "against"; **post-** "after", "behind"; **prae-** "before", "in front of"; **praeter-** "past", "beyond"; **re-** "back", "again"; **semi-** "half"; **super-** "above", "over"; **trans-** "across", "through"

Practice: each example combines two (or more) word elements, usually the suffixes and/or prefixes from above, but occasionally multiple bases!

1. viātor, viātōris:

2. perfacilis/e:

3. concrescō, -ere:

4. adventus, -ūs*:

5. inamābilis/e:

6. bellātrix, bellātrīcis:

7. principātus, - ūs:

8. excōgitō, -āre:
      (^^this one's tough, but try to break off three parts!-only one letter will be left for the stem)