

National Association of Special Education Teachers (NASET)

THE PRACTICAL TEACHER

This Month's Topic:

Latin and Greek Word Root Study to Accelerate Spelling, Vocabulary, and Reading Proficiency for All Students

By Matthew J. Glavach, Ph.D.

While Latin and Greek word root study typically is found in more advanced academic English classes, it offers great benefit for English language learners, struggling readers, and younger students as well. Latin and Greek word root study is an important way to accelerate vocabulary and reading proficiency.

Latin and Greek Word Root Study to Accelerate Spelling, Vocabulary, and Reading Proficiency for All Students presents a unique approach to Latin and Greek word roots for spelling, decoding, and vocabulary (comprehension) development that can be used with a wide range of student skill levels in middle school and high school. An extensive list of Latin and Greek word roots and their meanings is included.

Knowing Interesting Facts about Latin and Greek Word Roots

- Most of the academic words in math and science are derived from Latin and Greek.
- Most of the challenging multisyllable words in English are derived from Latin and Greek.
- One Latin or Greek affix can be found in and aid in the understanding of 20 or more English words.
- Spanish is a Latin-based language. Latin word roots can be used to help Spanish-speaking students use their native language to learn English. 1

Teaching Brain Efficient Latin and Greek Word Roots

Brain research shows that a similar word pattern can prime the next word if it has the similar pattern, which can accelerate reading. ² Latin and Greek word roots are especially powerful because they not only have identical spelling patterns, they have identical meanings. (See Figure 1.)

Figure 1. Word Examples

automobile

automatic

autobiography

The Greek root *auto* (meaning *self* and *same*) is in all three example words. The root *auto* is found in many other words and offers hints to their meanings. As each pattern is added and stored, students are developing categories that can be attached to new words. ³

While students are reading, many things are happening at the same time. They are identifying similar letter patterns within words and how they overlay onto other word patterns. The patterns help with pronunciation because the brain tends to naturally break words into syllables. Students do not divide words into syllables by using complex rules. They decode longer words by looking for familiar patterns. ⁴ As students identify syllables, they also learn to cross syllable boundaries (where syllables divide) when they see similar word parts associated with meaning. (See Figures 2 and 3.)

Figure 2. Syllable Example

au / to / bi / og / ra / phy

Figure 3. Meaning Word Parts Example

auto *bio* graph *y*

An easy way to figure out the meanings of many words is by knowing the word roots. Looking at the word ***autobiography***:

Auto means ***self***, **bio** means ***life***, and **graph** means ***written***.

Autobiography means ***the story of one's life written by oneself***.

If students cannot see the meaning patterns within words, they are not likely to link the new information with preexisting information. ⁵

Designing a Program for Latin and Greek Word Roots

While teaching in a high school with many underachieving students and many English language learners, the article's author, Matthew J. Glavach, Ph.D., developed a unique program to present Latin and Greek word roots.

The author began research for the program atypically by reviewing middle school and high school core textbooks to determine core content reading requirements. During the textbook review, he found that core textbook meaning was carried by multisyllable words, most with Latin and Greek word roots. According to Henry (1997), "Latin and Greek word roots make up sixty percent of the words in English text." Knowing Latin and Greek word roots makes it possible for students to read and understand key concepts in textbooks.

In reviewing resources, the author found that many lists of Latin and Greek word roots and their meanings were readily available. Yet words in the list did not easily translate into specific word meanings. (See Figure 4.)

Figure 4. Word Root Examples

aster = star
auto = self
bio = life
geo = earth
graph = to write
path = feel, hurt

Students needed a more problem solving activity so that they could identify the word parts in actual words. The author noticed that when words included two or more word roots, the meaning was much clearer and easier to identify. He made a word list of words, most containing two or more word roots, to teach word roots and their meanings. See Page 6, Latin and Greek Word Lists. Following is an activity page that can be used with the word roots. (See Figure 5.)

Figure 5. Word Root Activity Page

GUESS THE WORD ROOT MEANINGS

1. Read the word roots and their meanings. Write what you think the word means on line 1.
2. On line 2 write the word card definition.. (See Figure 6, Word Card Example.)

auto – self, same

auto + **graph** (write) = autograph

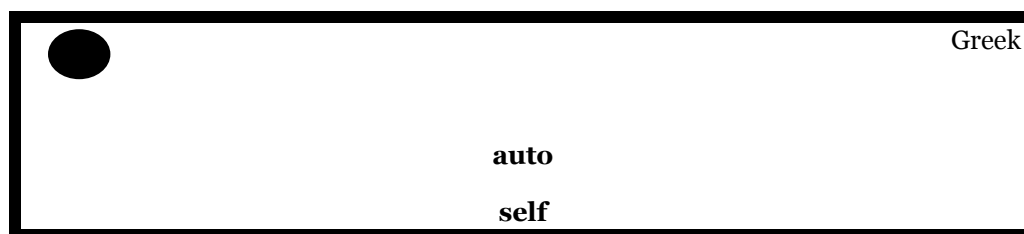
1. _____
2. _____

auto + **mat** (acting) = automatic

1. _____
2. _____

For all of the Latin and Greek words presented, the program included word cards with definitions, arranged alphabetically. (See Figure 6.)

Figure 6. Word Card Example



autograph (graph - *writing*) – writing the name of oneself; signature

**automatic (matos - *acting*) – moving or acting by itself, without help
[Does this car have an automatic transmission?]**

automobile (mobile - *move*) – a self-moving vehicle

The students enjoyed the problem solving word root activity pages. They also enjoyed game activities. A favorite for the students was a concentration-type card game made from the Latin and Greek roots and their English meanings. The figure below is a partial example. The complete game had 15 cards and covered a standard sized piece of paper. (See Figure 7.)

Figure 7. Word Root Concentration Game Example

Word Root Concentration Game A, B, C

Cut out the word cards. Place face down, and match the pairs. Say the sample words.

aster, astro <u>asteroid</u> <u>astronomy</u> <u>astronaut</u>	bio <u>biology</u> <u>biography</u> autob<u>io</u>graphy	cent <u>century</u> <u>centennial</u> per<u>cent</u>
star	life living things	hundred hundredth

Students enjoyed the program and made exceptional progress in vocabulary, spelling, and reading proficiency. Teaching Latin and Greek word roots offers students an advantage and is an important way to accelerate vocabulary, spelling and reading proficiency. The strategies used were engaging, meaningful, and well sequenced. They supported and compensated for students' individual differences.

NOTE: The program focused on using stems or bases in the English words, rather than on the actual Greek or Latin words. For example, in the word **sympathy**, **pathy** is used rather than **pathos**, the actual Greek word.

References

- (1) Rasinski, T.V., Padak, N., Newton, J., Newton, E. (2011) The Latin-Greek Connection. *The Reading Teacher* (p.134). New Jersey: International Reading Association
- (2) Dehaene, S.D. (2009). Reading in the brain (p. 42). New York: Viking/Penguin Group.
- (3) Willis, J. (2008) Teaching the brain to read (p.27). Virginia: Association for Supervision and Curriculum Development.
- (4) Dehaene, S.D. (2009). Reading in the Brain (p. 24). New York: Viking/Penguin Group.
- (5) Willis, J. (2008) Teaching the brain to read (p.22). Virginia: Association for Supervision and Curriculum Development.
- (6) Henry, M. (1997). The decoding/spelling continuum: Integrated decoding and spelling instruction from pre-school to early secondary school. *Dyslexia* 3.

The author has developed two programs for Latin and Greek word roots; **Latin and Greek Word Roots 1, a Course of Study**, and **Latin and Greek Word Roots 2, a Course of Study**, for middle and high school students. They are available at his website www.StrugglingReaders.com.

Following is the Latin and Greek Word Root List with words derived from middle school and high school core textbooks.

Latin and Greek Word Roots List

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Permission is granted for parents and teachers to make copies, cards, or posters of the following Latin and Greek Word Lists for individual home and classroom use.

a, an - not, without, Greek

anarchy (arch - rule) – without any rule or form of government; lawlessness; disorder

apathy (pathy - feeling) – without feeling or emotion; lack of desire or interest

amoral – without moral principles, not acceptable behavior

anorexia – (orexis - appetite) – without an appetite; lack of appetite

aster, astro – star, Greek

aster – star-shaped flower

asterisk – star-shaped mark *used to call attention to something written and printed

astronomy (nomy - scientific study) – scientific study of the stars, moon, etc.

asteroid (oid - resembling) – planets in the shape of a star, resembling a star

astronaut (naut - sailor) – star sailor; a person who travels in a spacecraft

astronomer (er –one who) – one who studies the stars, moon, etc.

auto – self, Greek

autograph (graph - *writing*) – writing the name of oneself; signature

automatic (matos - *acting*) – moving or acting by itself, without help [Does this car have an automatic transmission?]

automobile (mobilis - *move*) – a self-moving vehicle

bio = life, living things, Greek

biology (logy – *study of*) – the study of life

biotic – pertaining to life

biography (graph - *written*) – the story of one's life written by another

autobiography (auto - *self*) – the story of one's life written by oneself

antibiotic (anti - *against*) – against living forms which invade the body

bi = two, twice, Latin

biped (ped - *feet*) – a two-footed animal

bilingual (lingu - *language*) – able to speak two languages

bisect (sect - *to cut*) – to cut into two equal parts

biplane – an airplane with two sets of wings, one above the other

bibli/o = book, Greek

Bible – the book of the Christian religion

bibliography (graph - *written*) – a list of books written on a particular subject

bibliophile (phile - *love*) – one who loves books or collects them

bibliophobia (phobia - *fear*) – a fear of or dislike for books

cent = hundred, hundredth, Latin

century – a period of 100 years

centenarian (enn – *years*); (ian – *one who*) – one who is 100 years old or more

bicentennial (bi - *two*) (enn – *years*) – occurring once every two hundred years

percent – number of parts per hundred, 20 cents is 20 percent of a dollar

circum = around, Latin

circumference – the distance around a circle, figure, etc.

circumscribe (scrib - *write, draw*) – to draw a line around

circumnavigate - to sail or fly completely around

circumvent (vent - *to go*) – to bypass or go around

chron = time, Greek

chronic – lasting a long time, as in a disease or a disorder

chronicle – a record of events in a given sequence or order

chronology (logy - *study*) – to study or order events by time from the earliest to the latest

synchronize (syn - *together, same*) – to happen at the same time

dem/o = the people, the citizens, Greek

democracy (cracy - *government*) – government run by the people

epidemic (epi - *among*) – rapidly spreading disease among people

dict = speak, say, word, Latin

dictate – speak; command [Did the teacher dictate the spelling words?]

dictator (or - *one who*) – one whose word has absolute authority

predict (pre - *before*) – to say what will happen beforehand

contradict (contra - *against*) – to say or speak against

verdict (ver - *true*) – to speak the truth

dictionary – a book listing words and their meanings

benediction (bene – *good, well*) – a blessing; a wish for well being

dec = ten, tenth, Latin

decade (ad - *group*) – a period of ten years; a group or series of ten

decathlon (athlon - *contest*) – an athletic contest with ten events

decimal – based on the number ten; a decimal fraction like .5 or .008

e = out, Latin

eject (ject – *to throw*) – to throw out with force

erupt (rupt – *break, burst*) – to break or burst out violently

emigrate (migrare - *move*) – to move out of a country and settle in another

evacuate (vacuous - *empty*) – to empty out; to move out of danger

emancipate (manu - *hand*) – to take out of slavery or bondage; to liberate

ex = out, from, Latin

exit – a way to go out

expel – (pel – *drive*) to drive or throw out

extend (tend - *stretch*) - to stretch out

exclaim – to cry out; to shout out

excel – to do very well; to be better than

equ = equal, Latin

equal – exactly the same

equality – the condition of being equal; same

equilateral (latus - *side*) – having all sides equal; an equilateral triangle

equilibrium (libra - *balance*) – a state of balance

equator – an imaginary line of equal distance between the North Pole and the South Pole

ex - out, from, Latin

exit – a way to go out

expel – (pel – *drive*) to drive or throw out

extend (tend - *stretch*) - to stretch out

exclaim – to cry out; to shout out

excel – to do very well; to be better than

geo – earth, Greek

geography (graph - *write, draw*) – writings and drawings (maps) about the earth; the science that tells about the earth

geographer (er - *one who*) – one who writes and makes maps about the earth

geology (logy - *study of*) – study of the earth's structure and formations, rocks, minerals, etc.

geologist (ist - *one who*) – one who studies the earth's structure and formations, rocks, minerals, and so forth.

geometry (metron - *measure*) – ways to measure the earth; measurement

graph - write, draw, Greek

biography (bios - *life*) – the story of one's life written by another person

biographer (er - *one who*) – one who writes the story about another's life

autobiography (auto - *self*) – the story of one's life written by oneself

bibliography (biblio - *book*) – a list of books or writings by a particular author, or publisher, etc.

gon – angle, Greek

polygon (poly - *many*) - a closed plane figure with three or more angles and sides

pentagon (penta - *five*) – a closed plane figure with five angles and five sides

hexagon (hexa - *six*) – a closed plane figure with six angles and six sides

octagon (octa - *eight*) – a closed plane figure with eight angles and eight sides

hydr, hydro – water, Greek

hydrant – water pipe used for fighting fires, a fire hydrant

dehydrate (de - *down, remove*) – to remove all the water from

rehydrate (re - *back*) – to put water back; to restore

hydroelectric – electricity produced by moving water

hydrophobia (phobia - *fear*) – an excessive fear of water. Also rabies

hyper - excessive, over, beyond, Greek

hyperactive – overly active

hypersonic (son - *sound*) – moving at a speed equal to or over five times the speed of sound

hypertension (tens – *stretched tight, pressure*) – high blood pressure

homo, homi – same, Greek

homicide (cide - *to kill*) – to kill another human being [He was arrested for committing a homicide.]

suicide – to kill oneself

homonym (nym - *word*) – words that are pronounced the same but have different spellings and meanings, *deer* – *dear* and *bear* – *bare*.

homogenous (gen - *kind*) formed by parts of the same kind [For training, the swimmers were put into homogenous groups.]

il, ig, in, im, ir - not, without, Latin

illegal (leg - *law*) – **not** legal; prohibited by **law**

ignorant (gnos - *knowledge*) – **without** **knowledge** or training

inequality (equ - *equal*) – to be **not equal**

infinite (finis - *limit*) – **without** **limits** or ends; vast; **limitless**

irresponsible – **not responsible**; careless

irresponsible – **not responsible**; careless

il, ig, in, im, ir - not, without, Latin

invincible (vinc - *to conquer*) – **not** able to be **conquered**

incorrupt – **not corrupt**; **not** dishonest

impossible – **not possible**, **cannot** be done

irregular – **not regular**, having different sized parts

inter - between, among, Latin

interstate – **between** two or more **states**

international (natio – *nation, race*) – **between** two or more **nations**

interrupt (rupt - *break*) – to **break** in when someone is speaking; to **break** into a conversation **between** two or more persons

Intersection – the place where two roads or lines meet and cross

intersect (sect - *to cut*) – to divide by **cutting** through, **between**, or across

jur, jus – law, Latin

jury – a group of 12 who are sworn to give a just verdict in a court of **law**

juror (or – *one who*) – **one who** serves on a **jury** in a court of **law**

justice – a just judgment

adjustment – settlement

ject - to throw, Latin

eject (e - *out*) – to **throw out**; to dismiss

inject (in – *in, into*) – to **throw**, to force, or to drive **into** something

interject (inter - *between*) – to **throw between**; to make a sudden remark **between** others.

object (ob - *against*) – to **throw against**; to be **against**

reject (re - *back, again*) – to **throw back**; refuse to accept

junct - join, unite, connect, Latin

junction – the place where things **join**, a railroad crossing

conjunction (con - *together*) – a word **joining** two parts of a sentence, *and, but, for, or, yet, and so*

juncture – a critical point in time; events that are **connected**

less – without, Greek

careless – **without** care; slovenly

fearless – **without** fear; unafraid

hopeless – **without** hope or expectation

regardless – **without** regard or respect

liber – free, Latin

liberty – **freedom** from outside control

liberate – to set **free**

liberation (ion - *the act of*) – the act of setting **free**

leg – law, Latin

legal – **lawful**

illegal (il - *not*) – **not** legal or **lawful**

legalize (ize – *make*) – to **make** **legal**

legislate (lat – *bring forward*) – to **bring forward**; to enact or make laws

legislature – the body of people who have the right to make and to change **laws**

legislation (ion - *the act of*) – **the act of** making **laws**; a group of **laws**

matri, mater – mother, Latin

maternal – **motherly**; related through the **mother's** side of the family

matrimony (monia – *state of*) – marriage; **state** from which **motherhood** develops

maternity – the state of being a **mother**; **motherhood**

matriarch (arch - *chief, rule*) – the **mother** and **ruler** of the family or clan

magni, magna - great, large, Latin

magnify (fy – *to make*) – **to make larger**

Magna Charta (charta – *paper, charter*) – the **great charter** of 1215 that gave liberties to the English

magnitude – **greatness** of size or importance

magnificent – **great** in deed or character; grand

magnate – a person of **great** wealth

nat - birth, born, Latin

native – someone who is **born** in a particular place

prenatal (pre - *before*) – **before birth**

postnatal (post - *after*) – existing or occurring **after birth**

naturalize – to give citizenship to one foreign **born**

ology - study of, science of, Greek

biology – (bio – *life*) – the study of life

chronology – (chron – *time*) – the science of arranging events according to **time**

ecology – (eco – *environment*) – the **scientific study of** the relationships of plants, animals and people to each other and to their **environments**

psychology – (psych – *mind*) – the **study of the science of the mind** and the way it works

pro - forward, in place of, Latin

proceed (ceed - *to go*) – **to go forward**

progress (gress - *to go*) – **going forward** toward a specific goal

pronoun – a word used **in place of** a noun, *I, we, he, she, it, and you*

propel (pel - *to drive*) – to move, drive, or push **forward**

pre – before, Latin

predict (dict - *say*) – to say **beforehand**

precaution (caut - *on guard*) – being **on guard beforehand**

prejudge (jud – *judgment*) – to **judge beforehand**

prejudice (jud - *judgment*) – making a **judgment** beforehand

quadr, quadri – four, Latin

quadruped (ped – *foot, feet*) – an animal with four feet

quadrilateral (lat^{us} - *side*) – a figure having four sides

quadruple (ple – *times*) – four times as great

quadruplet (ple - *times*) – each of four offspring born at a single birth

rupt - break, burst, Latin

abrupt (ab – *off*) – to suddenly break off

erupt (e - *out*) – to burst or break out violently, as the action of a volcano

disrupt (dis - *apart*) – to break apart; to throw into disorder

interrupt (inter - *between*) – to break the flow of something; to come between

corrupt – to cause to break, to change from good to bad

re - again, back, Latin

repay – to pay back

reelect - to elect again

reconstruct (struct - *build*) – to build again after destruction or damage

resurgence (surg - *rise*) – to rise again

recapture (capt - *take, seize*) – to capture again; to take or seize

scrib, script – write, Latin

scribble – to write carelessly

script – writing; the written text of a play or motion picture

describe (de - *down*) – to write down; to give a word picture

prescription (pre - *before*) – something written ahead

postscript (post - *after*) – addition to a letter below the signature; afterthought

sub - down, below, Latin

submerge (merge - *sink in*) – to sink in; to go below the surface of the water

subway – an underground railway system

submarine (mar-sea) – a ship which can stay under water

subversive – that which undermines the government; that which destroys those in power

son – sound, Latin

sonic – of or concerning sound waves

sonar – device to hear sound under water

unison (uni - *one*) – having one harmonious sound

trans - across, change, Latin

transport (port – *carry*) – to carry across

transportation – a system of carrying passengers or goods from one place to another

transmit (mit – *send*) – to send across; to broadcast

transform – to change in form or appearance

translate – to change from one language to another

tele - far away, distant, Greek

television (vis – *see*) – the transmission of visual images from far away

telephone (phone – *sound*) - transmitting sound from distant locations

telescope (scope – *to look at*) – a device for looking at objects far away

telecommunication – communicating from a distance; internet, radio, satellite

tempo - time, latin

tempo – time in music; rate of speed at which a piece of music move

temporary - a limited amount of time

contemporary (con – *with*) – with the times; modern (She is my contemporary; we went to school together.) (contemporary art)

tempo – time in music; rate of speed at which a piece of music moves

un - not, opposite of, Latin

unusual – not usual; not common

unemployed – not employed; without a job

unhealthy – not healthy; not generally in good health

unfortunate – not fortunate; unlucky (an unfortunate accident or remark)

unpack – the opposite of pack (I am going to unpack my suitcase.)

uncover – to remove a cover from (The police uncovered the bank robbers' plan.)

unify (fy – *make*) – to make into one (Was England unified in the 16th century?)

uni, unum – one, Latin

unilateral (*latus – side*) = happening on one side only; effecting only one group in an agreement

united – together as one (the United States of America)

E –out pluribus – many unum – one “one out of many” states; U.S.A motto

unify (*fy – make*) – to make into one (Was England unified in the 16th century?)

urb, urbis – city, Latin

urban – a town or city (Do you prefer to live in an urban or a rural area?)

suburb (*sub – below, near*) – outer area of a town or city (I live in the suburbs.)

urbanites – people who live in the city

vis, vid – see, Latin

vision - the ability to see; eyesight

visible – that which can be seen (The stars are not visible tonight.)

visit – a view, or what is seen from a distance

video – picture part, or what is seen, on television

evident – can easily be seen (It's evident that you are not feeling well.)

viv, vit - alive, life, Latin

revive – (*re – back*) – to bring back to life; to resuscitate

survive – to continue to live (He survived the terrible accident.)

evidence (*e – out*) – out of what can be seen and noticed (Is there enough evidence to convict him?)

vivid – full of life, lively, bright and distinct (vivid red hair) (a vivid imagination)

vital – essential to life; of great importance (The bullet entered a vital organ.)

ver - true, Latin

viviparous (*parous – to produce*) – producing live young rather than eggs

verify – to prove to be true; to confirm (The detective must verify the prisoner's statement.)

verifiable – can be proven to be true

verdict – (*dict – to speak*) – to speak the truth; the official decision made by a jury in a court of law (Members of the jury, what is your verdict?)

vers, vert – turn, Latin

revert (re – *back*) – to **turn back** (He promised not to **revert** to his former ways.)

reverse (re – *back*) – to **turn back** (The judge decided to **reverse** his position.)

divert (di – *away*) – to **turn away** (The police **diverted** the traffic from the accident.)

adversity (ad – *toward*) – **turning toward** hardship; misfortune (This year had been filled with **adversity**.)

advertise (ad – *toward*) – to **turn** attention **toward**

invert (in – *not*) – to **turn** upside down; to put in the opposite position or order

zo, zoo – **animal**, Latin

zoo – a park where many kinds of **animals** are kept for show

zoology (ology – *study of*) – the scientific **study of animals**

hydrozoan (hydro – *water*) – small **aquatic** animals such as coral, etc.