Article Summary:
In this article, we review why the body of literature that can be called "the science of reading" does not support "phonics" for older students, practical recommendations for helping older readers, and provide a free multisyllabic word study program.

Should I Teach Phonics in All Grades?
I often see the claim that we should teach phonics K-8; however, there is no meaningful evidence that phonics should be taught after the primary years of instruction. In fact the (National Reading Panel, 2000) meta-analysis found no statistically significant benefit for phonics instruction past grade 2. While in my own (not yet peer-reviewed) meta-analysis, we (Joshua King and myself) found a strong benefit for phonics in grades K-8, that benefit only existed for struggling readers. To me this suggests that phonics should be limited to struggling readers after grade 2. Of course, as Christopher Such pointed out to me, some of this depends on how we define phonics. Phonics is usually used to refer to the explicit instruction of the correlation between phonemes (sounds) and graphemes (letters). For example, in a traditional phonics lesson we might introduce the letter <s> and say <s> represents the /s/ sound, like in the word "sat". The instruction is then followed with different forms of practicing identifying the sound made by the letter. However, as Christopher has pointed out to me, if a student asks what a word is and you "sound it out" for them, or if a student asks for help spelling a word and you segment it for them, this is still phonics instruction, it's just not systematic phonics instruction. In my opinion, traditional systematic phonics instruction likely shows diminishing returns for older students for three reasons.

1. Most students will already know the sounds that most letters commonly make, especially if they had good instruction in years past.
2. Many of the words students will be struggling on, will be the less commonly used spellings. For example, the letter <s> can also represent the /z/ sound (treasure, mosaic, casualty) or the /sh/ sound (sugar & Sri Lanka).
3. Oftentimes the bigger issue is encoding (spelling), not decoding (reading).

Of course, none of this is to say that phonics should not be taught to younger students, or struggling readers. In my interpretation of the scientific literature, we have very strong evidence that systematic phonics is the most effective intervention to help these readers, as I outline in this article: here.

However, I do think it is fair to say that phonics instruction should be limited in the upper grades. Instead, I would recommend teachers **focus more on morphology, fluency, and comprehension instruction**, as students get older. That said, when I point this out, I often get the following questions:

1. What about students who were not taught phonics?
2. What about struggling readers?
3. What if my whole class is low?
4. Doesn't the science of reading movement encourage phonics?
5. If it's good for struggling readers shouldn't it also help other students too?
6. What about multisyllabic words?

And my response is always:

1. For the first two questions, I really have the same answer: Use a norm referenced screening tool like DIBELS or Acadience to assess your students' risk for reading difficulty. If you have students below the 30th percentile, test their decoding. We have a free decoding screener you can find here: Screener
   If the student struggles with the assessment (less than 70% correct), I would personally teach them phonics. If they score close to 100%, but still miss some letter sound correspondences, I would teach them those specific letter sound correlations. The evidence is quite clear, most struggling readers benefit from phonics.
2. See answer to the first question.
3. I'm going to sound a bit like a broken record here, but… Use a norm referenced screener, to test your class. If most of the class is below the 30th percentile, I would teach them phonics. However, I would likely use a much faster scope and sequence, as I would assume that they are not actually starting from zero phonetic knowledge. Even with a whole language approach, students will pick up some phonics knowledge, through incidental exposure. The older the class is and the better they do on a reading assessment, the less phonics instruction I would give them. I find older students often struggle with the "vowel teams" and some of the letters, which more commonly have two or more separate sounds. For example, in my personal experience, many older students struggle differentiating between the sounds that <g>, <c> & <r> commonly represent and the sounds that <ge>, <gi>, <gy>, <ce>, <ci> & <er> commonly represent. If I had a very strong class of older students, I might explicitly review those last 9 graphemes and nothing else in a year.
4. Again systematic phonics instruction is very well supported by the scientific literature, but only for emerging readers. I think where this confusion may come from, is that the main point of contention between balanced literacy advocates and structured literacy advocates, is related to whether or not phonics should be taught systematically. Structured literacy advocates argue that phonics should be taught explicitly and based on a scope and sequence. Whereas, balanced literacy advocates have argued that phonics should be taught as needed, to students' individual needs (which in practice has meant very little phonics). I believe that this intense debate on phonics, has led some to believe that the science of reading suggests phonics should be taught to all classes, when there are to the best of my knowledge no credible researchers claiming this.
5. This argument seems to harken back to the expression "If it's good for the goose, it's good for the gander". However, we have no scientific research to support this maxim and it does seem like quite the leap to say we should teach something to the whole class that most students already know.
6. If students have strong decoding abilities, decoding multisyllabic words should usually be of no difficulty, unless there are words with multiple irregular spellings. According to (Moats, 1995) 50% of English words are completely phonetically regular and 37% of words have only one irregularly spelled phoneme (sound). This means that 87% of words are easily decoded. Moreover, of the remaining words many are likely to be high frequency words that students are likely to have learned from both implicit and explicit instruction by the higher grades (Shanahan, 2022).

So Is Phonics Ever Okay for Core Instruction, in the Older Grades?

As Christopher Such pointed out to me on twitter, it likely depends on in part, what do we mean by "phonics"? If we mean traditional synthetic phonics lessons like I described at the start of the article, I think most of the students would have to be properly assessed as weak decoders and weak readers. However, there are other ways that letter sound correspondences can be taught. Analytic phonics teaches phonics via word families, like: root, boot, hoot, loot. I have always thought this type of instruction makes a great deal of intuitive sense for grades 2-3. However, I have never personally found any compelling research for it. Similarly, as Christoper Such also pointed out, phonics instruction teaches the correlation between letters and sounds and morphology instruction might also include the explicit instruction of these correlations (such as in SWI). Therefore, morphology instruction is often inherently similar to phonics instruction. Although, I'm sure my friend Pete Bowers might disagree with my characterization). The difference being with morphology instruction that you're not just teaching the letter sound associations in isolation, but rather you're also connecting that correlation back to its meaning and often its etymology. Indeed, I would strongly recommend reading teachers include some morphology instruction in their practice, especially in the grades 2-8. In many ways, morphology instruction is the logical next step for phonics instruction as it helps readers learn why some of the irregularities exist within the English orthographic system.

Personally in my own classrooms (grades 7-8), I have started to teach the more difficult spelling patterns that exist for phonemes found in the English language. I use a speech to print approach to organize this instruction and embed it in grade appropriate words. I also teach these spelling patterns at a much faster pace than would be used in a traditional phonics program, for younger students. The goal here is not to drill each letter sound correlation to complete mastery, but rather to provide some additional explicit instruction of each difficult spelling pattern. I believe this helps my most struggling readers, because it provides them with additional phonics instruction. However, some of the words and spelling patterns chosen are specifically meant to challenge and help the top readers in the class. None of this is meant to replace a proper tiered approach to reading instruction. Struggling readers will still need more support than this approach can provide. To the best of my knowledge there is no meaningful research on such an approach. However, in my personal experience, I have found it to be useful.

The Method:
This approach is completely focused on teaching decoding via encoding practice. Spelling is inherently more difficult for students, as there are multiple graphemes, for most phonemes. However, students can use cognitive flexibility when decoding to recognize the phonemes a grapheme might represent. The same cannot be said about spelling. Spelling instruction has also been shown to have a very large impact on reading instruction (Graham, 2010). Indeed, Graham's research suggests that encoding instruction might have a larger impact on reading outcomes, than does decoding instruction.The words selected below were chosen for grades 6-8. However, the same approach could be replicated for grades 3-5, by adding more graphemes and decreasing the difficulty of the words.

Step 1:
Each lesson focuses on one phoneme (sound). You write the words on the board associated with the sound and the students try to find the common sound and circle it.

Step 2:
Have the students segment the words and identify each letter sound correspondence in each word. For the first 5 lessons, I would skip step 2 and go straight to step 3.

Step 3:
Take up the answers and identify the letter sound correspondences for each word.

Step 4: (Optional, if you have the required knowledge)
Identify the morphemes in the words and identify their meaning. Etymology online is a phenomenal resource, if you would like to learn how to do this.

Step 5:
Have the students turn to a new page and conduct a spelling test with new words (on the odd occasion a difficult word is repeated), using the same spelling patterns.

Step 6:
Write out the correct spellings on the board and segment them.

Step 7:
Have the students check their work and write out any words they got wrong, segmented, three times.

That's it. Each lesson takes about 10-15 minutes and the entire program takes 5 weeks to complete. Below I will list the words used for each lesson. They were all sourced from this phenomenal [website](#):

Again, there is no research that I am aware of to support this method. However, if you are looking for a multisyllabic phonics instruction for older students, you may want to try it. In my experience it is helpful.

Disclaimer:
I do want to note that this program was built on some assumptions. The words selected for this program were specifically selected due to their difficult spelling patterns. However, for some of these spelling patterns there is not a consistent linguistic interpretation of how that spelling pattern represents sounds. For example, in the word athlete, the letter <e> at the end of the word is being used to make the previous <e> say its own name. Some call this a "split digraph"; however, others argue that there is no such thing. Personally, I have no strong feelings about the matter. However, for the sake of simplicity, I have segmented such words, with the "magic e", as part of the final phoneme in the word. IE: athlete = a/th/l/e/te. Similarly, some words use the spelling pattern of <vowel>+<ght>. With these words, some authors claim the gh belongs to the vowel sound, others claim it belongs to the /t/ sound. However, as I have seen Lynn Stone point out, graphemes don't make sounds, they represent them. With this in mind, I made the conscious decision to pair the <gh> spelling pattern, with the /t/ sound, for the sake of consistency. That said, I am not sure there is really a correct answer for such spelling patterns. Lastly, these segmenting decisions were based on the pronunciations in central eastern Canada and may shift, according to your local dialect. If you choose to use the program, please adjust the program to your pronunciations of words, as needed.

Lesson 1: /ee/
Athlete = a/th/l/e/te
Achieve = a/ch/ie/ve
Seize = s/ei/ze
Physique = ph/y/s/i/que
Sardine = s/ar/d/i/ne
Debris = d/e/b/r/is
Foetal = f/oe/t/a/l

Lesson 1 Spelling Test:
Scalene = sc/a/l/e/ne
Briefcase = b/r/ie/f/c/a/se
Protein = p/r/o/t/ei/n
Oblique = o/b/l/i/que
Trampoline = t/r/a/m/p/o/l/i/ne
Phoenix = ph/oe/n/i/x

Lesson 2: /i/
Cricket = c/r/i/ck/e/t
Pyramid = P/y/r/a/m/i/d
Baggage = b/a/gg/a/ge
Biscuit = b/i/s/c/ui/t
Fountain = f/ou/t/ai/n
Business = b/u/s/i/n/e/ss
Minute = m/i/n/u/te

Lesson 2 Spelling Test:
Puppet = p/u/pp/e/t
Crystal = c/r/y/s/t/a/l
Village = v/i/ll/a/ge
Circuit = c/ir/c/ui/t
Chaplain = ch/a/p/l/ai/n
Business = b/u/si/ne/ss
Lettuce = le/tt/u/ce

Lesson 3: /ue/
Shrew = sh/ew
Movement = m/o/ve/m/e/n/t
Rescue = r/e/s/c/ue
Canoe = c/a/n/oe
Feud = f/eu/d
Beautiful = b/eau/t/i/f/u/l
Parachute = p/ar/a/ch/u/te

Lesson 3 Spelling Test:
Cashew = c/a/sh/ew
Rescue = r/e/s/c/ue
Neutral = n/eu/t/r/al

Beauty = b/eau/t/y
Pollute = p/o/ll/u/te

Lesson 4: /i/
Umbrella = u/m/b/r/e/ll/a
Walrus = w/a/l/r/u/s
Pupil = p/u/p/i/l
Tandem = t/a/n/d/e/m
Cannon = c/a/nn/o/n
Outrageous = ou/t/r/a/ge/ou/s

Lesson 4 Spelling Test:
Petal = p/e/t/a/l
Citrus = c/i/t/r/u/s
Nostril = n/o/s/t/r/i/l
Pollen = p/o/ll/e/n
Daffodil = d/a/ff/o/d/i/l
Enormous = e/n/or/m/ou/s

Lesson 5: /u/
Pigeon = p/i/g/eo/n
Aggregate = a/gg/r/e/g/a/te
Porpoise = P/or/p/oi/se
Curtain = c/ur/t/ai/n
Official = o/ff/i/ci/al
Contagious = c/o/n/t/a/gi/ou/s
Borough = b/o/r/ough

Lesson 5 Spelling Test:
Sturgeon = s/t/ur/g/eo/n
Advocate = a/d/v/o/c/a/te
Tortoise = t/or/t/oi/se
Special = s/p/e/ci/al
Contagious = c/o/n/t/a/gi/ou/s
Thorough = th/or/ough

Lesson 6: /ure/
Sculpture = s/c/u/l/p/t/ure
Vapour = v/a/p/our
Surveillance =s/ur/v/ei/ll/a/n/c/e
Leopard = l/eo/p/ar/d
Lacquer = l/a/cqu/er

Lesson 6 Spelling Test:
Temperature = t/e/m/p/er/a/t/ure
Arbour = ar/b/our
Surveyor = S/ur/v/ey/or
Lacquer = l/a/cqu/er

Caterpillar = c/a/t/er/p/i/ll/ar

Lesson 7: /or/
Tyrannosaurus = t/y/r/a/nn/o/s/aur/us
Wardrobe = w/ar/d/r/o/be
Scorpion = s/c/or/p/i/o/n
Courtship = c/our/t/sh/i/p

Lesson 7 Spelling Test:
Minotaur = m/i/n/o/t/aur
Warthog = w/ar/t/h/o/g
Accordingly = a/cc/or/d/i/ng/l/y
Courting = c/our/t/i/ng

Lesson 8: /aw/
Laundry = l/au/n/d/r/y
Trawler = t/r/aw/l/er
Sought = s/ou/ght
Daughter = d/augh/t/er

Lesson 8 Spelling Test:
Brawler = b/r/aw/l/er
Brought = b/r/ough/t
Taught = t/augh/t,
Bauble = b/au/b/le

Lesson 9: /ear/
Engineer = e/g/i/n/eer
Atmosphere = a/t/m/o/s/ph/ere
Chandelier = ch/a/n/d/e/l/ier
Cafeteria = c/a/f/e/t/er/i/a

Lesson 9 Spelling Test:
Puppeteer = p/u/pp/e/t/eer
Severe = s/e/v/ere
Cashier = c/a/sh/ier
Bacteria = b/a/c/t/er/i/a

Lesson 10: /ae/
Ballet = b/a/ll/et
Straight = S/t/r/aigh/t
Freight = f/r/eigh/t
Reign = r/eig/n
Neighbour = n/eigh/b/our
Breakdown = b/r/ea/k/d/ow/n

Lesson 10 Spelling Test:
Bidet = b/i/d/et

Straightjacket = s/t/r/aigh/t/j/a/ck/e/t
Weight = w/eigh/t
Reindeer = r/ei/n/d/eer
Neighbour = n/eigh/b/our
Icebreaker = i/ce/b/r/ea/k/er

Lesson 11: /ure/
Manure = m/a/n/ure
Tourist = t/our/i/s/t
Neuron = n/eur/o/n

Lesson 11 Spelling Test:
Manicure = m/a/n/i/c/ure
Mature = m/a/t/ure
Contour = c/o/n/t/our
Insurance = i/n/s/ur/a/n/ce

Lesson 12: /oe/
Bureau = b/ur/eau
Haricot = h/ar/i/c/o/t
Boulder = b/ou/l/d/er
Doughnut = d/ough/n/u/t

Lesson 12 Spelling Test:
Although = a/l/th/ough
Shoulder = sh/ou/l/d/er
Escargot = e/s/c/ar/g/ot
Plateau = p/a/t/eau

Lesson 13: /air/
Unbearable = u/n/b/ear/a/b/le
Heirloom = heir/l/oo/m or h/eir/l/oo/m depending on pronunciation
Aerosol = aer/o/s/o/l

Lesson 13 Spelling Test:
Bearing = b/ear/i/ng
Heiress = heir/e/ss or h/eir/e/ss depending on pronunciation
Aerodrome = aer/o/d/r/o/me

Lesson 14: /ie/
Island = is/l/a/n/d
Aisle = Ais/le
Either = ei/th/er
Megabyte = m/e/g/a/b/y/te

Lesson 14 Spelling Test:
Island = is/l/a/n/d
Aisle =ais/le

Neither = n/ei/th/er
Gigabyte = g/i/g/a/b/y/t/e

Lesson 15: /j/
Percentage = p/er/c/e/n/t/a/ge
Lodger = L/o/dg/er
Vegetables = v/e/ge/t/a/b/le/s
Jigsaw j/i/g/s/aw

Lesson 15 Spelling Test
Pyjamas = p/y/j/a/m/a/s
Genie = ge/n/ie
Cottage = c/o/tt/a/ge
Badger = b/a/dg/er

Lesson 16: /k/
Noxious = n/o/xi/ou/s
Quiche = qu/i/che
Acquire = a/cqu/i/re
Antique = a/n/t/i/que
Orchestra = or/ch/e/s/t/r/a
Aquarium = a/quar/i/u//m

Lesson 16 Spelling Test:
Anxious = a/n/x/i/ou/s
Mosquito = m/o/s/qu/i/t/o
Acquaint = a/cqu/ai/n/t
Cheque = ch/e/que
Chemist = ch/e/m/i/s/t
Liquid = l/i/qu/i/d

Lesson 17: /g/
Ghoulish = gh/ou/l/i/sh
Baguette = b/a/g/ue/tte
Plague = p/l/a/gue
Exhilarated = e/x/hi/l/ar/a/t/ed

Lesson 17 Spelling Test:
Gherkin = gh/er/k/i/n
Guitar =g/ui/t/ar
Dialogue = d/i/a/l/o/gue
Exhausted = e/x/hau/s/t/e/d

Lesson 18
Photograph = ph/o/t/o/g/r/a/ph
Rough = r/ou/gh
Chauffeur = ch/au/ff/eur

Lesson 18 Spelling Test: /f/
Dolphin = d/o/l/ph/i/n
Enough = e/n/ou/gh
Giraffe = g/i/r/a/ffe

Lesson 19: /s/
Centipede = c/e/n/t/i/p/e/d/e
Cinema = c/i/ne/m/a
Eclipse e/c/l/i/p/se
Thistle = th/i/st/le
Crescent = c/r/e/sc/e/n/t
Pretzel p/r/e/t/z/e/l
Psychic ps/y/ch/i/c

Lesson 19 Spelling Test:
Resource = r/e/s/our/ce
Circular = c/ir/c/u/l/ar
Recycle = r/e/c/y/c/le
Whistle = wh/i/st/le
Muscle = m/u/sc/le
Eczema = e/c/z/e/m/a
Psychologist = ps/y/ch/o/l/o/g/i/s/t

Lesson 20: /z/
Mosaic = m/o/s/ai/c
Dessert = d/e/ss/er/t
Exhibitor = ex/h/i/b/o/tor
Xylophone = x/y/l/e/ph/o/ne

Lesson 20 Spelling Test:
Applause = a/pp/l/au/se
Possessive = p/o/ss/e/ss/i/ve
Exhausted = e/x/h/au/s/t/e/d
Anxiety = a/n/x/ie/t/y

Lesson 21: /sh/
Musician = m/u/s/i/ci/a/n
Patient = p/a/ti/e/n/t
Sugar =s/u/g/ar
Expression = e/x/p/r/e/ssi/o/n/
Conscience = c/o/n/sci/e/n/ce
Crustacean = c/r/u/s/t/a/ce/a/n

Lesson 21 Spelling Test:
Electrician = e/l/e/c/t/r/i/ci/a/n
Station = s/t/a/ti/o/n
Excursion = e/x/c/ur/si/o/n
Expression = e/x/p/r/e/ssi/o/n

Conscious = c/o/n/sci/ou/s
Ocean = o/c/ea/n

Lesson 22: /r/
Wrestle = wr/e/st/le
Rhinoceros = rh/i/n/o/c/e/r/ou/s
Acrobat = a/c/r/o/b/a/t
Parrot = p/a/rr/o/t

Lesson 23 Spelling Test
Rhubarb = rh/u/b/ar/b
Wreckage = wr/e/ck/a/ge
Ostrich = o/s/t/r/a/ch
Rhinoceros = rh/i/n/o/c/e/r/ou/s

Lesson 24: /y/
Farmyard = f/ar/m/y/ar/d
Eucalyptus = eu/c/a.l/y/p/t/o/s
Opinionated = o/p/i/o/n/a/t/e/d

Lesson 24 Spelling Test
Onion = o/n/i/o/n
Eucalyptus = eu/c/a/l/y/p/t/u/s
Europe = eu/r/o/pe

You can give this spelling test to your students before and after starting the program, to monitor their progress.

Scalene	Beauty	Surveyor
Briefcase	Pollute	Lacquer
Protein	Petal	Caterpillar
Oblique	Citrus	Minotaur
Trampoline	Nostril l	Warthog
Phoenix	Pollen	Accordingly
Puppet	Daffodil l	Courting
Crystal	Enormous	Brawler
Village	Sturgeon	Brought
Circuit	Advocate	Taught
Chaplain	Tortoise	Bauble
Business	Special	Puppeteer
Lettuce	Contagious	Severe
Cashew	Thorough	Cashier
Rescue	Temperature	Bacteria
Neutral	Arbour	Bidet

Straightjacket	Badger	Eczema
Weight	Anxious	Psychologist
Reindeer	Mosquito	Applause
Neighbour	Acquaint	Possessive
Icebreaker	Cheque	Exhausted
Manicure	Chemist	Anxiety
Mature	Liquid	Electrician
Contour	Gherkin	Station
Insurance	Guitar	Excursion
Bearing	Dialogue	Expression
Heiress	Exhausted	Conscious
Aerodrome	Dolphin	Ocean
Island	Enough	Rhubarb
Aisle	Giraffe	Wreckage
Neither	Resource	Ostrich
Gigabyte	Circular	Rhinoceros
Pyjamas	Recycle	Onion
Genie	Whistle	Eucalyptus
Cottage	Muscle	Europe

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