# Phonics: Theory and Practice

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I. Need Analysis

Do our students need instruction of phonics?

Students:

1. What do our students want to learn?
2. Do our students need to learn phonics?
3. What can phonics contribute to our students' learning of English?
4. Will phonics help our students improve reading ability?

Teachers:

1. Do I know very well about the function of phonics?
2. What do we want to teach our students through phonics?
2. Can I remember all the rules of phonics?
3. Do I know very well the role of phonics in my instruction?
4. Do I really know for sure that phonics help my students improve reading ability?

II. What is phonics?

Phonics refers to associating letters or letter groups with the sound they represent. (1)

Phonics is the system of teaching reading that builds on the alphabetic principle, a system of which a central component is the teaching of correspondences between letters or groups of letters and their pronunciations (Adams, 1994).

In other words, **phonics** refers to **associating letters or letter groups with the sound they represent**.

(2)

**Phonics** refers to a method for teaching speakers of English to read and write that language. Phonics involves teaching how to connect the sounds of spoken English with letters or groups of letters (*e.g.*, that the sound /k/ can be represented by c, k, ck, or ch spellings) and teaching them to blend the sounds of letters together to produce approximate pronunciations of unknown words.

Therefore, phonics is **not** necessarily **a method for teaching English pronunciation**; it is a method for teaching English speakers to **read and write**.

III. Why Phonics?

Because of the complexity of written English, more than a century of debate has occurred over whether English phonics should or should not be used in teaching beginning reading.

Despite the work of 19th century proponents such as Rebecca Smith Pollard, some American educators, prominently Horace Mann, argued that phonics should not be taught at all. This led to the commonly used "look-say" approach ensconced in the "Dick and Jane" readers popular in the mid-20th century.

Beginning in the 1950s, however, phonics resurfaced as a method of teaching reading. Spurred by Rudolf Flesch's criticism of the absence of phonics instruction (particularly in his popular book, *Why Johnny Can't Read*, 1955) phonics resurfaced.

## IV. Whole Language

In the **1980s**, the "whole language" approach to reading further polarized the debate in the United States. Whole language instruction was predicated on the principle that children could learn to read given

(a) proper **motivation**,
(b) access to **good literature**,
(c) many **reading opportunities**,
(d) focus on **meaning**, and
(e) instruction to help students **use meaning clues** to determine the pronunciation of unknown words.

For some advocates of whole language, phonics was **antithetical** to helping new readers to get the meaning; they asserted that parsing words into small chunks and reassembling them had no connection to the ideas the author wanted to convey.

The whole language emphasis on identifying words using context and focusing only a little on the sounds (usually the alphabet consonants and the short vowels) could not be reconciled with the phonics emphasis on individual sound-symbol correspondences.

Thus, a dichotomy between the whole language approach and phonics emerged in the United States causing **intense debate**. Ultimately, this debate led to a series of Congressionally-commissioned panels and government-funded reviews of the state of reading instruction in the U.S.

In 1984, the National Academy of Education commissioned a report on the status of research and instructional practices in reading education, Becoming a Nation of Readers. Among other results, the report includes the finding that **phonics instruction improves children's ability to identify words.** It reports that useful phonics strategies include teaching children the sounds of letters in isolation and in words, and teaching them to blend the sounds of letters together to produce approximate pronunciations of words. It also states **that phonics instruction should occur in conjunction with opportunities to identify words in meaningful sentences and stories.**

In 1990, Congress asked the U.S. Department of Education to compile a list of available programs on beginning reading instruction, evaluating each in terms of the effectiveness of its phonics component. As part of this requirement, the US DOE asked Dr. Marilyn J. Adams to produce a report on the role of phonics instruction in beginning reading, which resulted in her 1994 book *Beginning to Read: Thinking and Learning about Print*. In the book, Adams asserted that existing scientific research supported that phonics is an effective method for teaching students to read **at the word**

**level**. Adams argued strongly that the phonics and the whole language advocates are **both right**. Phonics is an effective way to teach students the alphabetic code, building their skills in decoding unknown words.

By learning the alphabetic code early, Adams argued, students can quickly free up mental energy they had used for word analysis and devote this mental effort to meaning, leading to stronger comprehension earlier in elementary school. Thus, she concluded, phonics instruction is a necessary component of reading instruction, but not sufficient by itself to teach children to read. This result matched the overall goal of whole language instruction and supported the use of phonics for a particular **subset of reading skills**, especially in the **earliest stages** of reading instruction. Yet the argument about how to teach reading, eventually known as "the Great Debate," continued unabated.

The National Research Council re-examined the question of how best to teach reading to children (among other questions in education) and in 1998 published the results in the *Prevention of Reading Difficulties in Young Children* (Catherine Snow, *et. al.*). The National Research Council's findings largely matched those of Adams. They concluded that phonics is a very effective way to teach children to read **at the word level**, more effective than what is known as the "embedded phonics" approach of whole language (where phonics was taught opportunistically in the context of reading materials). They found that phonics instruction must be systematic (following a sequence of increasingly challenging phonics patterns) and explicit (teaching students precisely how the patterns worked, *e.g.*, "this is b, it stands for the /b/ sound")….

In 1997,… the National Reading Panel examined quantitative research studies on many areas of reading instruction, including phonics and whole language. The resulting report *Teaching Children to Read: An Evidence-based Assessment of the Scientific Research Literature on Reading and its Implications for Reading Instruction* was published in 2000 and provides a comprehensive review of what is known about best practices in reading instruction in the U.S. The panel reported that several reading skills are critical to becoming good readers: phonics for word identification, fluency, vocabulary and text comprehension. With regard to phonics, their meta-analysis of hundreds of studies **confirmed** the findings of the **National Research Council**: teaching phonics (and related phonics skills, such as phonemic awareness) is **a more effective way to teach children early reading skills than is embedded phonics or no phonics instruction**.

V. Who needs phonics?

Buried deep in Johnson's article is the suggestion that some children can acquire phonics generalizations by reading. As noted earlier, Smith (e.g. 1994) has hypothesized that most of our knowledge of phonics is the **result** of reading and not the **cause** (Krashen, 2002).

Johnson's view differs somewhat from Smith's in that she claims that some children can indeed acquire sound-spelling correspondences by reading, while others "need systematic instruction" (p. 141). No evidence is provided for this extremely important claim, a claim that runs counter to current official state and federal

government policy that all children must have systematic, intensive phonics instruction (Krashen, 2009).

To support such a claim, one would have to show that there are substantial numbers of children who have learned to read without extensive phonics training (this is easy to find), and also substantial numbers of children who cannot "learn to read by reading," who require extensive phonics instruction. The existence of this second group has never been demonstrated: To do so, one must find large numbers of children who have been read to, who have substantial exposure to comprehensible and interesting texts, and who nevertheless fail to learn to read (Krashen, 2002).

**Reconsider:**
**Intensive phonics instruction (reading-like behavior)**
Intensive, Systmatic Phonics—all major letter-sound correspondences taught in order—assumes

(1) we learn to read by first learning the rules of phonics, that is, we learn to read by sounding out words and reading out-loud ("decoding to sound").
(2) knowledge of phonics must be deliberately taught and consciously learned.

This is hard work. The major rules (Ehri): "long and short vowels and vowel and consonant digraphs consisting of two letters representing one phoneme, such as oi, ea, sh, and th. Also, phonics instruction may include blends of letter sounds that represent larger subunits in words such as consonant pairs (e.g. st, bl), onsets, and rimes" (p. 180)(Cited by Krashen, 2009)

**Basic phonics instruction**
Basic Phonics: It is helpful to teach some rules of phonics, only the straight-forward rules.
Basic phonics instruction assumes
(1) we learn to read by reading, by understanding what is on the page.
(2) Most of our knowledge of phonics is the result of reading; **more complex rules of phonics are subconsciously acquired through reading** (Smith).
(3) Basic rules can help by making texts more comprehensible, restricting possibilities:
Smith: "The man was riding on the h____." and cannot read the final word.

Zero Phonics: all phonics rules can be acquired by reading. Rare.

VI. Strengths of phonics
Phonemic Awareness
1. Phonemic awareness instruction is more effective when students are taught to use letters to manipulate phonemes.
2. Explicit phonemic awareness instruction helps beginning readers and those having reading difficulties.
3. Explicit phonemic awareness instruction helps preschoolers, kindergartners, and first graders learn to spell.

Phonics

1. Phonics instruction improves word reading skills, especially for kindergartners, first graders, and older struggling readers.
2. Explicit, systematic phonics instruction is significantly more effective than alternative programs providing nonsystematic or no phonics instruction.
3. Explicit phonics instruction is significantly more effective than nonsystematic phonics instruction with children of different ages, abilities, and socioeconomic background.

VII. Limitation of phonics

1. Learn to read letters or learn to read words?
2. Too many rules that even teachers cannot remember all.
3. Even if these rules were remembered, "not only is the system massive and complex, it is also unreliable, because it contains no way of predicting when a particular correspondence applies. What is the use of a complex set of rules if there is no reliable guide for when a particular rule should be employed?" (Frank Smith, 2005).
4. When readers meet new words, they guess the meaning first, and then try to sound the word out. But phonics does not help children to "guess the meaning" but try to "sound out" words first.
5. Very basic rules of phonics will help students figure out how to "read out" the words, but if these students did not speak the language in advance, they wouldn't be able to know the meaning of the words sounded out. Then what the use of phonic rules?

VIII. Issues to ponder

1. Do we need phonics for our students? Do we really understand our students' need?
2. When teaching phonics, do we teach "decoding of words"? Or "the meaning of the word"? Or "Pronunciation" for communication"? Or just teach "whatever has been assigned to teach"?
3. How can we apply phonics to our instruction of reading?
   (1) Synthetic phonics
   (2) Analytical phonics
   (3) Analogy phonics
   (4) Embedded phonics

IX. A combined approach

Many school systems, such as California's, have made major changes in the method they have used to teach early reading. Today, most teachers combine phonics with the elements of whole language that focus on reading comprehension. They are employing a combined approach Adams (1994) and the National Reading Panel (1994) advocate for a comprehensive reading program that includes several different subskills. This combined approach is sometimes called balanced literacy. Some researchers (Moats, 2008) assert that balanced literacy is merely whole language called by another name.

Proponents of various approaches generally agree that **a combined approach is important**.
See also Liu, C. K. (2005). Phonics & K. K. and children's English pronunciation. *English Works* (20), 22-24.

## Phonics Rules

I. Here are the most commonly used phonics rules:

1. Every syllable in every word must contain a vowel. The vowels are: a, e, i, o, u, and y (although y is a consonant when at the beginning of a word).

2. When "c" is followed by "e, i, or y," it usually has the soft sound of "s." Example: city.

3. When "g" is followed by "e, i, or y," it usually has the soft sound of "j." Example: gem.

4. A consonant digraph is two or more consonants that are grouped together and represent a single sound. Here are consonant digraphs you should know: wh (what), sh (shout), wr (write), kn (know), th (that), ch (watch), ph (laugh), tch (watch), gh (laugh), ng (ring).

5. When a syllable ends in a consonant and has only one vowel, that vowel is short. Examples: tap, bed, wish, lock, bug.

6. When a syllable ends in a silent "e," the vowel that comes before the silent "e" is long. Examples: take, gene, bite, hope, fuse.

7. When a syllable has two vowels together, the first vowel is usually long and the second vowel is silent. Example: stain.

8. When a syllable ends in a vowel and is the only vowel, that vowel is usually long. Examples: ba/ker, be/come, bi/sect, go/ing, fu/ture, my/self.

9. When a vowel is followed by "r" in the same syllable, the vowel is neither long nor short. Examples: charm, term, shirt, corn, surf.

II. Clymer's 45 phonic generalizations

**The utility of 45 phonic generalizations**

| *Generalization | No. of words conforming | No. of exceptions | Percent of utility |
|---|---|---|---|
| 1. When there are two vowels side by side, the long sound of the first one is heard and the second is usually silent. | 309 (bead)† | 377 (chief)† | 45 |
| 2. When a vowel is in the middle of a one-syllable word, the vowel is short. | 408 | 249 | 62 |
| middle letter | 191 (dress) | 84 (scold) | 69 |
| one of the middle two letters in a word of four letters | 191 (rest) | 135 (told) | 59 |
| one vowel *within* a word of more than four letters | 26 (splash) | 30 (fight) | 46 |
| 3. If the only vowel letter is at the end of a word, the letter usually stands for a long sound. | 23 (he) | 8 (to) | 74 |
| 4. When there are two vowels, one of which is final *e*, the first vowel is long and the *e* is silent. | 180 (bone) | 108 (done) | 63 |
| *5. The *r* gives the preceding vowel a sound that is neither long nor short. | 484 (horn) | 134 (wire) | 78 |
| 6. The first vowel is usually long and the second silent in the digraphs *ai*, *ea*, *oa*, and *ui*. | 179 | 92 | 66 |
| *ai* | 43 (nail) | 24 (said) | 64 |
| *ea* | 101 (bead) | 51 (head) | 66 |
| *oa* | 34 (boat) | 1 (cupboard) | 97 |
| *ui* | 1 (suit) | 16 (build) | 6 |
| 7. In the phonogram *ie*, the *i* is silent and the *e* has a long sound. | 8 (field) | 39 (friend) | 17 |
| *8. Words having double *e* usually have the long *e* sound. | 85 (seem) | 2 (been) | 98 |
| 9. When words end with silent *e*, the preceding *a* or *i* is long. | 164 (cake) | 108 (have) | 60 |
| *10. In *ay* the *y* is silent and gives *a* its long sound. | 36 (play) | 10 (always) | 78 |
| 11. When the letter *i* is followed by the letters *gh*, the *i* usually stands for its long sound and the *gh* is silent. | 22 (high) | 9 (neighbor) | 71 |
| 12. When *a* follows *w* in a word, it usually has the sound *a* as in *was*. | 15 (watch) | 32 (swan) | 32 |
| 13. When *e* is followed by *w*, the vowel sound is the same as represented by *oo*. | 9 (blew) | 17 (sew) | 35 |
| 14. The two letters *ow* make the long *o* sound. | 50 (own) | 35 (down) | 59 |
| 15. *W* is sometimes a vowel and follows the vowel digraph rule. | 50 (crow) | 75 (threw) | 40 |
| *16. When *y* is the final letter in a word, it usually has a vowel sound. | 169 (dry) | 32 (tray) | 84 |
| 17. When *y* is used as a vowel in words, it sometimes has the sound of long *i*. | 29 (fly) | 170 (funny) | 15 |
| 18. The letter *a* has the same sound (ô) when followed by *l*, *w*, and *u*. | 61 (all) | 65 (canal) | 48 |
| 19. When *a* is followed by *r* and final *e*, we expect to hear the sound heard in *care*. | 9 (dare) | 1 (are) | 90 |
| *20. When *c* and *h* are next to each other, they make only one sound. | 103 (peach) | 0 | 100 |
| *21. *Ch* is usually pronounced as it is in *kitchen*, *catch*, and *chair*, not like *sh*. | 99 (catch) | 5 (machine) | 95 |
| *22. When *c* is followed by *e* or *i*, the sound of *s* is likely to be heard. | 66 (cent) | 3 (ocean) | 96 |

*(continued)*

**The utility of 45 phonic generalizations (cont'd.)**

| *Generalization | No. of words conforming | No. of exceptions | Percent of utility |
|---|---|---|---|
| *23. When the letter *c* is followed by *o* or *a* the sound of *k* is likely to be heard. | 143 (camp) | 0 | 100 |
| 24. The letter *g* often has a sound similar to that of *j* in *jump* when it precedes the letter *i* or *e*. | 49 (engine) | 28 (give) | 64 |
| *25. When *ght* is seen in a word, *gh* is silent. | 30 (fight) | 0 | 100 |
| 26. When a word begins *kn*, the *k* is silent. | 10 (knife) | 0 | 100 |
| 27. When a word begins with *wr*, the *w* is silent. | 8 (write) | 0 | 100 |
| *28. When two of the same consonants are side by side only one is heard. | 334 (carry) | 3 (suggest) | 99 |
| *29. When a word ends in *ck*, it has the same last sound as in *look*. | 46 (brick) | 0 | 100 |
| *30. In most two-syllable words, the first syllable is accented. | 828 (famous) | 143 (polite) | 85 |
| *31. If *a*, *in*, *re*, *ex*, *de*, or *be* is the first syllable in a word, it is usually unaccented. | 86 (belong) | 13 (insect) | 87 |
| *32. In most two-syllable words that end in a consonant followed by *y*, the first syllable is accented and the last is unaccented. | 101 (baby) | 4 (supply) | 96 |
| 33. One vowel letter in an accented syllable has its short sound. | 547 (city) | 356 (lady) | 61 |
| 34. When *y* or *ey* is seen in the last syllable that is not accented, the long sound of *e* is heard. | 0 | 157 (baby) | 0 |
| 35. When *ture* is the final syllable in a word, it is unaccented. | 4 (picture) | 0 | 100 |
| 36. When *tion* is the final syllable in a word, it is unaccented. | 5 (station) | 0 | 100 |
| 37. In many two- and three-syllable words, the final *e* lengthens the vowel in the last syllable. | 52 (invite) | 62 (gasoline) | 46 |
| 38. If the first vowel sound in a word is followed by two consonants, the first syllable usually ends with the first of the two consonants. | 404 (bullet) | 159 (singer) | 72 |
| 39. If the first vowel sound in a word is followed by a single consonant, that consonant usually begins the second syllable. | 190 (over) | 237 (oven) | 44 |
| *40. If the last syllable of a word ends in *le*, the consonant preceding the *le* usually begins the last syllable. | 62 (tumble) | 2 (buckle) | 97 |
| *41. When the first vowel element in a word is followed by *th*, *ch*, or *sh*, these symbols are not broken when the word is divided into syllables and may go with either the first or second syllable. | 30 (dishes) | 0 | 100 |
| 42. In a word of more than one syllable, the letter *v* usually goes with the preceding vowel to form a syllable. | 53 (cover) | 20 (clover) | 73 |
| 43. When a word has only one vowel letter, the vowel sound is likely to be short. | 433 (hid) | 322 (kind) | 57 |
| *44. When there is one *e* in a word that ends in a consonant, the *e* usually has a short sound. | 85 (leg) | 27 (blew) | 76 |
| *45. When the last syllable is the sound *r*, it is unaccented. | 188 (butter) | 9 (appear) | 95 |

† Words in parentheses are examples—either of words which conform or of exceptions, depending on the column.
* Generalizations marked with an asterisk were found "useful" according to the criteria.

## III. Other formats to present the rules

Vowel A

1. (_)a_—(be pronounced as a “short” vowel)
   cat dad gas rat at as ad
2. (_)a_e—(be pronounced as a “long” vowel)
   date case late sake page ate age
3. (_)ai_—(be pronounced as a “long” vowel)
   wait rain jail paid fail aid aim (said)
4. (_)ay(_) —(be pronounced as a “long” vowel)
   say day pay way days pays gays (says)
5. (_)al_—(be pronounced as /ɔ/)
   all call salt tall mall ball wall
6. (_)aul_—(be pronounced as /ɔ/ and “u” is silent)
   fault Paul
7. (_)aught—(be pronounced as /ɔ/ and “ugh” is silent)
   caught taught daughter
8. (_)aw(_)—(be pronounced as /ɔ/ and “w” is silent)
   saw law jaw claw dawn lawn
9. (_)ar(_)—(be pronounced as /ar/)
   hard bark cart car bar jar
10. (_)are —(be pronounced as /ɛr/)
    care hare dare ware rare share
11. (_)air(_)—(be pronounced as /ɛr/)
    air hair pair fair chair
12. (_)a(_)ion—(be pronounced as “long” vowel)
    station vacation occasion

Vowel E

1. (_)e_—(be pronounced as a “short” vowel)
   bed let get set red pet net
2. (_)e_e—(be pronounced as a “long” vowel)
   eve these delete impede Pete complete
3. (_)ee(_)—(be pronounced as a “long” vowel)
   see bee meet keep need week sleep
4. (_)ea(_) —(be pronounced as a “long” vowel)
   eat meat real lead team tea mean (great, head, instead)
5. c/sei(_)—(be pronounced as /i/ and “i” is silent)
   receive seize deceive ceiling
6. (_)ew(_)—(be pronounced as /u/)
   few new dew
7. (_)er(_)—(be pronounced as /ɜ˞/)
   term herb her alert
8. (_)ear_—(be pronounced as /ɜ˞/ and “a” is silent)
   earn learn

9. (_)e—(be pronounced as /i/)
   he be she (the breath)

Vowel I
1. (_)i_—(be pronounced as a “short” vowel)
   pig hit kid sit fix tip hip
2. (_)i_e—(be pronounced as a “long” vowel)
   hide like time wide kite wife ride
3. (_)ie—(be pronounced as a “long” vowel)
   die lie pie tie
4. ch/shie(_)—(be pronounced as /i/ and “i” is silence)
   achieve chief shield
5. (_)ir(_) —(be pronounced as /ɜ˞/)
   bird dirt girl first firm

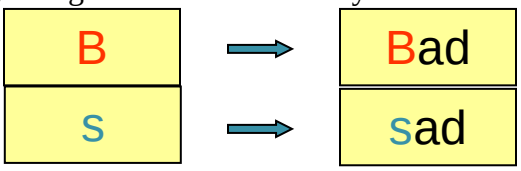
Vowel O
1. (_)o_—(be pronounced as a “short” vowel)
   hot job God not fox jog nod
2. (_)o_e—(be pronounced as a “long” vowel)
   hope joke rope nose rode home rose
3. (_)oe—(be pronounced as a “long” vowel)
   toe Joe
4. (_)oi_ —(be pronounced as /ɔɪ/)
   oil boil join coin moist
5. (_)oy(_)—(be pronounced as /ɔɪ/)
   boy toy joy soy
6. (_)oo—(be pronounced as /u/ and “u” is silent)
   too zoo coo tattoo bamboo
7. (_)oo_—(be pronounced as /u/ but there might be many exceptions)
   food boot tool moon fool cool tooth
   good took hook hood look foot book
8. (_)ou_—(be pronounced as /aʊ/)
   our out loud found sound count
9. (_)or(_)—(be pronounced as /ɔr/)
   fork corn pork Lord (work word worst)
10. (_)ore—(be pronounced as /ɔr/)
    more wore core tore
11. (_)oar(_)—(be pronounced as /ɔr/)
    roar boar board
12, (_)o—(be pronounced as a long vowel)
    so no go Jo (to, do)

Vowel U
1. (_)u_—(be pronounced as a “short” vowel)
   cup cut bug hut but luck hug

2. (_)u_e—(be pronounced as a “long” vowel)
   cute Duke huge tube mute Luke nude
3. (_)ui_—(be pronounced as a “long” vowel)
   suit fruit
4. (_)ue—(be pronounced as a “long” vowel)
   Sue blue glue due cue hue
5. (_)ur(_)—(be pronounced as /ɜ˞/)
   fur curl surf turn burn

IV. How to apply the rules?

1. By repeating them
   T: “a a a”
   Ss: /æ æ æ/
2. By high-lighting or marking the letters
   cat dad bat sad…
3. By breaking up the words
   For example, we say: “Point to the c-a-t.” Don’t say the names of the letters, but say their sounds. It should sound like “Kuh Ah Tuh” rather than “See Ay Tee.”
4. By using flashcards to show symbols and example words




5. By designing materials for specific sound and symbol in each lesson
   These materials or textbooks contain specific symbols so that each of the sounds of English can have a unique symbol. These symbols are then taught and the students will initially read text that utilizes these symbols.
6. By using a matrix
   All possible combinations are represented on a spreadsheet (or matrix) with medial spellings (a, e, i, o, u, y, ar, er, etc.) on the x-axis and the vowels sounds (b, c, d, f, g, ch, etc.) on the y-axis. Students are taught ba, be, bi, bo and so on.
7. By synthetic methods
   http://www.synthetic-phonics.com/phonics_methods.html
   http://www.cceschool.org/hayes/Phonics%20Charts.htm
   http://www.geocities.com/broomesroom/phonicstips.html