ELA Sessions

P – 3 Day 2

Foundational Skills: Phonics and Fluency
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### Fluency Rubric

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
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<tr>
<td>3</td>
<td>Reads with a mixture of intonation. Incomplete phrases. Some pauses between words. Good pronunciation, stress, and phrasing.</td>
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<td>2</td>
<td>Reads in two or three phrases. Some pauses. pronunciation, stress and phrasing.</td>
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<td>1</td>
<td>Reads word-by-word in a monotone voice. Pronunciation, stress, and phrasing.</td>
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**Score:**

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**Name:**
Choral Reading

Directions:

1. Identify someone at your table who has a phone that can be used as a recorder for the activity.
2. <Start the recorder.> As a table, read the passage below (without practice). <Stop the recorder.>
3. As a table, re-read the passage 3 more times (not recording), clarifying pronunciation and pacing as needed.
4. <Start the recorder> As a table, re-read the passage. <stop the recorder>.
5. Listen to both recordings and discuss differences.

We have shown that there is a broad class of astrophysical objects that can be adequately simulated in high-energy density laboratory experiments. Those include exploding type II supernovae, nonradiating and radiating jets, and photoevaporation fronts. A common feature of these phenomena is that they can be adequately described by hydrodynamic equations, with thermal conductivity, viscosity, and mutual diffusion of various species neglected. Shock waves are allowed, as well as nonuniformities of the composition. If radiative losses are negligible, then the similarity conditions are very nonrestrictive, allowing one to choose from a broad variety of parameters of a possible simulation experiment. The main constraint – which is usually met in the high energy-density experiments! is that the matter should indeed be strongly collisional and obey magnetohydrodynamic equations. We call the corresponding similarity “the Euler similarity.” Adding the radiation leads to a more constrained system but still some flexibility remains. The role of viscosity, thermal diffusivity, and particle diffusivity can be conveniently expressed in terms of dimensionless numbers, the Reynolds number, the Peclet number, and the magnetic Reynolds number. All of them are typically very large in the astrophysical systems, meaning the negligible role of dissipative processes for large-scale motions. If, however, small-scale motions are for some reason important, one should carefully analyze them, to see if dissipative processes are still unimportant. In the case where the dynamical evolution of the system reaches the stage of a strongly developed hydrodynamic turbulence, with a Kolmogorovtype spectrum established, the viscous dissipation certainly comes to play for small-scale vortices. We, however, have presented arguments that show that, for very large Reynolds numbers, two systems would behave very similarly at the global scale, even if the Reynolds numbers are not equal – say, 1010 and 106. Moreover, in a number of situations – e.g., when considering the process of the RT spikes poking through the photosphere of a supernova! one does not need to track the evolution of the system to the state of fully developed turbulence; it is sufficient to follow its evolution for a couple of turnaround times of large-scale vortices. In such a case the Euler similarity works in its direct form.

SOURCE: Magnetohydrodynamic scaling: From astrophysics to the laboratory D. D. Ryutov, B. A. Remington, and H. F. Robey Lawrence Livermore, National Laboratory, Livermore, California 94551 R. P. Drake University of Michigan, Ann Arbor, Michigan 481.
Additional Fluency Resources

UnboundED Building Fluency Guides
https://www.unbounded.org/enhance_instruction?subjects=ela

5 Reasons to Implement Fluency Practice
https://www.facebook.com/notes/unbounded/5-reasons-to-implement-fluency-practice-for-your-students-today/706183146195979

Hasbrouck-Tindal Oral Reading Fluency Chart
https://www.readnaturally.com/knowledgebase/how-to/9/59

Rasinski Multi-Dimensional Fluency Scale

NAEP Oral Reading Fluency Scale

Achieve the Core Fluency Blog
http://achievethecore.org/aligned/what-is-reading-fluency/

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Improve Fluency for All Readers

Fluency is an important link between decoding and comprehension. Comprehension is hindered without fluency.

The good news is that fluency is an element of reading that can be improved relatively quickly with some attention and practice. And fluency practice can be conducted using texts from the curriculum.

Carve out 5 minutes a day for students to read aloud with these strategies to foster fluency!
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Characteristics of Systematic Phonics

1. Scope and Sequence

2. Explicit Instruction

3. Aligned Practice

4. Frequent and Regular Assessment

5. Abundant Practice Materials

6. 60 Minutes
National Reading Panel Report on Phonics

TEACHING CHILDREN TO READ: An Evidence-Based Assessment of the Scientific Research Literature on Reading and Its Implications for Reading Instruction

REPORTS OF THE SUBGROUPS
Systematic phonics instruction typically involves explicitly teaching students a prespecified set of letter-sound relations and having students read text that provides practice using these relations to decode words. Instruction lacking an emphasis on phonics instruction does not teach letter-sound relations systematically and selects text for children according to other principles. The latter form of instruction includes whole-word programs, whole language programs, and some basal reader programs.

The meta-analyses were conducted to answer several questions about the impact of systematic phonics instruction on growth in reading when compared with instruction that does not emphasize phonics. Findings provided strong evidence substantiating the impact of systematic phonics instruction on learning to read.

1. Does systematic phonics instruction help children learn to read more effectively than unsystematic phonics instruction or instruction teaching no phonics?

Children’s reading was measured at the end of training if it lasted less than a year or at the end of the first school year of instruction. The mean overall effect size produced by phonics instruction was significant and moderate in size ($d = 0.44$). Findings provided solid support for the conclusion that systematic phonics instruction makes a more significant contribution to children’s growth in reading than do alternative programs providing unsystematic or no phonics instruction.

2. Are some types of phonics instruction more effective than others? Are some specific phonics programs more effective than others?

Three types of phonics programs were compared in the analysis: (1) synthetic phonics programs that emphasized teaching students to convert letters (graphemes) into sounds (phonemes) and then to blend the sounds to form recognizable words; (2) larger-unit phonics programs that emphasized the analysis and blending of larger subparts of words (i.e., onsets, rimes, phonograms, spelling patterns) as well as phonemes; and (3) miscellaneous phonics programs that taught phonics systematically but did this in other ways not covered by the synthetic or larger-unit categories or were unclear about the nature of the approach. The analysis showed that effect sizes for the three categories of programs were all significantly greater than zero and did not differ statistically from each other. The effect size for synthetic programs was $d = 0.45$; for larger-unit programs, $d = 0.34$; and for miscellaneous programs, $d = 0.27$. The conclusion supported by these findings is that various types of systematic phonics approaches are more effective than non-phonics approaches in promoting substantial growth in reading.

There were seven programs that were examined in three or more treatment-control group comparisons in the database. Analysis of the effect sizes produced by these programs revealed that all were statistically greater than zero and none differed statistically from the others in magnitude. Effect sizes ranged from $d = 0.23$ to 0.68. In most cases there were only three or four comparisons contributing effect sizes, so results may be unreliable. The conclusion drawn is that specific systematic phonics programs are all more effective than non-phonics programs and they do not appear to differ significantly from each other in their effectiveness although more evidence is needed to verify the reliability of effect sizes for each program.

3. Is phonics taught more effectively when students are tutored individually, when they are taught in small groups, or when they are taught as classes?

All three delivery systems proved to be effective ways of teaching phonics, with effect sizes of $d = 0.57$ (tutoring), $d = 0.43$ (small group), and $d = 0.39$ (whole class). All effect sizes were statistically greater than zero, and no one differed significantly from the others. This supports the conclusion that systematic phonics instruction is effective when delivered through tutoring, through small groups, and through teaching classes of students.
4. Is phonics instruction more effective when it is introduced to students not yet reading, in kindergarten or 1st grade, than when it is introduced in grades above 1st after students have already begun to read?

Phonics instruction taught early proved much more effective than phonics instruction introduced after 1st grade. Mean effect sizes were kindergarten $d = 0.56$; 1st grade $d = 0.54$; and 2nd through 6th grades $d = 0.27$. The conclusion drawn is that systematic phonics instruction produces the biggest impact on growth in reading when it begins in kindergarten or 1st grade before children have learned to read independently. To be effective, phonics instruction introduced in kindergarten must be appropriately designed for learners and must begin with foundational knowledge involving letters and phonemic awareness.

5. Is phonics instruction beneficial for children who are having difficulty learning to read? Is it effective in preventing reading failure among children who are at risk for developing reading problems in the future? Is it effective in remediating reading difficulties in children who have been diagnosed as reading disabled and children who are low-achieving readers?

Phonics instruction produced substantial reading growth among younger children at risk of developing future reading problems. Effect sizes were $d = 0.58$ for kindergartners at risk and $d = 0.74$ for 1st graders at risk. Phonics instruction also improved the reading performance of disabled readers (i.e., children with average IQs but poor reading) for whom the effect size was $d = 0.32$. These effect sizes were all statistically greater than zero. However, phonics instruction failed to exert a significant impact on the reading performance of low-achieving readers in 2nd through 6th grades (i.e., children with reading difficulties and possibly other cognitive difficulties explaining their low achievement). The effect size was $d = 0.15$, which was not statistically greater than chance. Possible reasons might be that the phonics instruction provided to low-achieving readers was not sufficiently intense, that their reading difficulties arose from sources not treated by phonics instruction such as poor comprehension, or that there were too few cases (i.e., only eight treatment-control comparisons pulled from three studies) to yield reliable findings.

The conclusion drawn from these findings is that systematic phonics instruction is significantly more effective than non-phonics instruction in helping to prevent reading difficulties among at-risk students and in helping to remediate reading difficulties in disabled readers. No conclusion is drawn in the case of low-achieving readers because it is unclear why systematic phonics instruction produced little growth in their reading and whether the finding is even reliable. Further research is needed to determine what constitutes adequate remedial instruction for low-achieving readers.

6. Does systematic phonics instruction improve children’s reading comprehension ability as well as their decoding and word-reading skills?

Systematic phonics instruction was most effective in improving children’s ability to decode regularly spelled words ($d = 0.67$) and pseudowords ($d = 0.60$). This was expected because the central focus of phonics programs is upon teaching children to apply the alphabetic system to read novel words. Phonics programs also produced growth in the ability to read irregularly spelled words although the effect size was significantly lower, $d = 0.40$. This is not surprising because a decoding strategy is less helpful for reading these words. However, alphabetic knowledge is useful for establishing connections in memory that help children read irregular words they have read before. This may explain the contribution of phonics.

Systematic phonics instruction produced significantly greater growth than non-phonics instruction in younger children’s reading comprehension ability ($d = 0.51$). However, the effects of systematic phonics instruction on text comprehension in readers above 1st grade were mixed. Although gains were significant for the subgroup of disabled readers ($d = 0.32$), they were not significant for the older group in general ($d = 0.12$).

The conclusion drawn is that growth in word-reading skills is strongly enhanced by systematic phonics instruction when compared to non-phonics instruction for kindergartners and 1st graders as well as for older
struggling readers. Growth in reading comprehension is also boosted by systematic phonics instruction for younger students and reading disabled students. Whether growth in reading comprehension is produced generally in students above 1st grade is less clear.

7. Does systematic phonics instruction have an impact on children’s growth in spelling?

Systematic phonics instruction produced much growth in spelling among the younger students, that is, kindergartners and 1st graders, $d = 0.67$, but not among the older students above 1st grade, whose effect size of $d = 0.09$ did not differ from zero. One factor contributing to the difference is that younger children were given credit for using phonics-based knowledge to produce letter-sound spellings of words as well as correct spellings whereas older children were not. Another factor may be that as children move up in the grades, remembering how to spell words requires knowledge of higher level regularities not covered in systematic phonics programs. A third reason for the poor showing among older students may be that the majority were poor readers who are known to have difficulty learning to spell.

The conclusion drawn is that systematic phonics instruction contributed more than non-phonics instruction in helping kindergartners and 1st graders apply their knowledge of the alphabetic system to spell words. However, it did not improve spelling in students above 1st grade.

8. Is systematic phonics instruction effective with children at different socioeconomic levels?

Systematic phonics instruction helped children at all SES levels make greater gains in reading than did non-phonics instruction. The effect size for low-SES students was $d = 0.66$, and for middle-class students it was $d = 0.44$. Both were statistically greater than zero and did not differ from each other. The conclusion drawn is that systematic phonics instruction is beneficial to students regardless of their socioeconomic status.

9. Does the type of control group used to evaluate the effectiveness of systematic phonics instruction make a difference?

The type of nonsystematic or non-phonics instruction given to control groups to evaluate the effectiveness of systematic phonics instruction varied across studies and included the following types: basal programs, regular curriculum, whole language approaches, whole word programs, and miscellaneous programs. The question of whether phonics produced better reading growth than each type of control group was answered affirmatively in each case. The effect sizes were all positive favoring systematic phonics, were all statistically greater than zero, and ranged from $d = 0.31$ to 0.51. No single effect size differed from any of the others.

The conclusion supported by these findings is that the effectiveness of systematic phonics instruction found in the present meta-analysis did not depend on the type of instruction that students in the control groups received. Students taught systematic phonics outperformed students who were taught a variety of nonsystematic or non-phonics programs, including basal programs, whole language approaches, and whole word programs.

10. Were studies reporting the largest effects of systematic phonics instruction well designed or poorly designed experiments? That is, was random assignment used? Were the sample sizes sufficiently large? Might results be explained by differences between treatment and control groups that existed prior to the experiment rather than by differences produced by the experimental intervention?

The effects of systematic phonics instruction were not diminished when only the best designed experiments were singled out. The mean effect size for studies using random assignment to place students in treatment and control groups, $d = 0.45$, was essentially the same as that for studies employing quasi-experimental designs, $d = 0.43$, which utilized existing groups to compare phonics instruction and non-phonics instruction. The mean effect size for studies administering systematic phonics and non-phonics instruction to large samples of students did not differ from studies using the fewest
students: for studies using between 80 and 320 students, \( d = 0.49 \); for studies using between 20 and 31 students, \( d = 0.48 \). There were some studies that did not use random assignment and either failed to address the issue of pre-existing differences between treatment and control groups or mentioned that a difference existed but did not adjust for differences in their analysis of results. The effect sizes changed very little when these comparisons were removed from the database, from \( d = 0.44 \) to \( d = 0.46 \).

The conclusion drawn is that the significant effects produced by systematic phonics instruction on children’s growth in reading were evident in the most rigorously designed experiments. Significant effects did not arise primarily from the weakest studies.

11. Is enough known about systematic phonics instruction to make recommendations for classroom implementation? If so, what cautions should be kept in mind by teachers implementing phonics instruction?

Findings of the panel regarding the effectiveness of systematic phonics instruction were derived from studies conducted in many classrooms with typical classroom teachers and typical American or English-speaking students from a variety of backgrounds and SES levels. Thus, the results of the analysis are indicative of what can be accomplished when systematic phonics programs are implemented in today’s classrooms. Systematic phonics instruction has been used widely over a long period with positive results. A variety of phonics programs have proven effective with children of different ages, abilities, and SES backgrounds. These facts should persuade educators and the public that systematic phonics instruction is a valuable part of a successful classroom reading program. The Panel’s findings summarized above serve to illuminate the conditions that make systematic phonics instruction especially effective. However, caution is needed in giving a blanket endorsement to all kinds of phonics instruction.

It is important to recognize that the goals of phonics instruction are to provide children with some key knowledge and skills and to ensure that they know how to apply this knowledge in their reading and writing. Phonics teaching is a means to an end. To be able to make use of letter-sound information, children need phonemic awareness. That is, they need to be able to blend sounds together to decode words, and they need to break spoken words into their constituent sounds to write words. Programs that focus too much on the teaching of letter-sounds relations and not enough on putting them to use are unlikely to be very effective. In implementing systematic phonics instruction, educators must keep the end in mind and ensure that children understand the purpose of learning letter-sounds and are able to apply their skills in their daily reading and writing activities.

In addition to this general caution, several particular concerns should be taken into consideration to avoid misapplication of the findings. One concern relates to the commonly heard call for “intensive, systematic” phonics instruction. Usually the term “intensive” is not defined, so it is not clear how much teaching is required to be considered intensive. Questions needing further answers are: How many months or years should a phonics program continue? If phonics has been taught systematically in kindergarten and 1st grade, should it continue to be emphasized in 2nd grade and beyond? How long should single instructional sessions last? How much ground should be covered in a program? That is, how many letter-sound relations should be taught and how many different ways of using these relations to read and write words should be practiced for the benefits of phonics to be maximum? These are among the many questions that remain for future research.

Second, the role of the teacher needs to be better understood. Some of the phonics programs showing large effect sizes are scripted so that teacher judgment is largely eliminated. Although scripts may standardize instruction, they may reduce teachers’ interest in the teaching process or their motivation to teach phonics. Thus, one concern is how to maintain consistency of instruction and at the same time encourage unique contributions from teachers. Another concern involves what teachers need to know. Some systematic phonics programs require a sophisticated understanding of spelling, structural linguistics, and word etymology. Teachers who are handed the programs but are not provided with sufficient inservice training to use these programs effectively may become frustrated. In view of the evidence showing the effectiveness of systematic phonics instruction, it is important to ensure that the issue of how best to prepare teachers to carry out this
teaching effectively and creatively is given high priority. Knowing that all phonics programs are not the same brings with it the implication that teachers must themselves be educated about how to evaluate different programs and to determine which are based on strong evidence and how they can most effectively use these programs in their own classrooms.

As with any instructional program, there is always the question: “Does one size fit all?” Teachers may be expected to use a particular phonics program with their class, yet it quickly becomes apparent that the program suits some students more than others. In the early grades, children are known to vary greatly in the skills they bring to school. There will be some children who already know most letter-sound correspondences, some children who can even decode words, and others who have little or no letter knowledge. Should teachers proceed through the program and ignore these students? Or should they assess their students’ needs and select the types and amounts of phonics suited to those needs? Although the latter is clearly preferable, this requires phonics programs that provide guidance in how to place students into flexible instructional groups and how to pace instruction. However, it is common for many phonics programs to present a fixed sequence of lessons scheduled from the beginning to the end of the school year.

Finally, it is important to emphasize that systematic phonics instruction should be integrated with other reading instruction to create a balanced reading program. Phonics instruction is never a total reading program. In 1st grade, teachers can provide controlled vocabulary texts that allow students to practice decoding, and they can also read quality literature to students to build a sense of story and to develop vocabulary and comprehension. Phonics should not become the dominant component in a reading program, neither in the amount of time devoted to it nor in the significance attached. It is important to evaluate children’s reading competence in many ways, not only by their phonics skills but also by their interest in books and their ability to understand information that is read to them. By emphasizing all of the processes that contribute to growth in reading, teachers will have the best chance of making every child a reader.
Individual Reflection: Café Questions

Round 1: After reviewing the article, what do you currently do that demonstrates these findings about a systematic approach to phonics? And where don’t you demonstrate the findings?

Round 2: What do you like about a systematic phonics approach? What concerns you about a systematic phonics approach?

Round 3: According to the NRP report, the research on systematic phonics is irrefutable. To what extent are you implementing phonics with a systematic approach? If not 100%, why not?

Round 4: What actions do you now want to take as a result of this discussion? Next week with your students? With your team in the next 2 weeks? With school leadership in the next month?
# Code Load

## Code Knowledge assumed at the beginning of this Reader:

### Vowel Sounds and Spellings:
- /i/ as in *skim*
- /e/ as in *bed*
- /a/ as in *tap*
- /u/ as in *up*
- /o/ as in *flop*
- /ee/ as in *bee*
- /a_e/ as in *late*
- /i_e/ as in *time*
- /o_e/ as in *home*
- /u_e/ as in *cute*
- /oo/ as in *soon*
- /oo/ as in *look*
- /ou/ as in *shout*
- /oi/ as in *oil*
- /aw/ as in *paw*

### Consonant Sounds and Spellings:
- /p/ as in *tip, tipping*
- /b/ as in *rub, rubbing*
- /l/ as in *bat, batting*
- /d/ as in *bid, bidding*
- /k/ as in *cot, kid, rock*
- /s/ as in *soccer*
- /g/ as in *log, logging*
- /ch/ as in *chin*
- /j/ as in *jog*
- /f/ as in *fat, huff*
- /v/ as in *yet*
- /z/ as in *zip, dogs, buzz*
- /th/ as in *thin*
- /th/ as in *then*

### Other:
- punctuation (period, comma, quotation marks, question mark, exclamation point, apostrophe)

## Code Knowledge added gradually in this unit for this Reader:

- **Beginning with “Meet Vern”**: the sound /er/ spelled ‘er’ as in *her*
- **Beginning with “Things That Swim”**: the sound /ar/ spelled ‘ar’ as in *car*
- **Beginning with “Chimps”**: the sound /or/ spelled ‘or’ as in *for*
- **Beginning with “Mandrills”**: two-syllable words
- **Beginning with “Groundhogs”**: the Tricky Words *today, yesterday, tomorrow; /l/ as in asked, /dl/ as in filled*
Program Review

1. Has a Documented Scope and Sequence of Foundational Skills

2. Includes Explicit Instruction in the Code
   a. introduces students to spelling/sound relations separately, explicitly and gradually while following a clear sequence
   b. provides guidance, instructions, and materials to support phonology (how to pronounce words), orthography (how to spell words), and morphology (what prefixes, roots, and suffixes make words)

3. Uses Aligned Practice
   a. includes primarily decodable texts for students to practice reading words that contain the spelling/sound patterns being taught and those already learned
   b. includes activities that allow students to read, spell, and or write with newly learned sound-spellings

4. Includes Frequent and Regular Assessments
   a. includes regular and frequent assessments to help teachers more easily tell which students have mastered which patterns

5. Provides Guidance and Resources for Students Who Need More
   a. provides guidance and instructions for teachers to interpret assessment data to address student needs
   b. provides abundant and easily accessible additional materials (including some students can do independently), to address re-teaching or extension activities

6. Devotes 60 Minutes to this Instruction
Final Reflection

Is there a systematic K – 2 phonics program in place?

Is the scope and sequence specific enough to demonstrate the sequence and grade level of presentation for each of the 150 sound spellings?

Is the same phonics program used by all K – 2 teachers?

Are materials used for remediation aligned to the instructional approach of the primary ELA program?

Does the remediation program reteach, reinforce, and provide additional practice based on what is covered in the ELA class?

If needed, is there a remediation schedule that occurs in addition to, and not at the expense of, time students would spend working with grade-level texts?

What can I take away from today – the presentation of the programs reviewed – that will improve my practice with regard to phonics?