Misunderstandings of the Science of Reading

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Meet Your Presenter

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What We'll Cover

- Overview of the Science of Reading (SoR) movement

- Consequences of the SoR movement
  - Benefits
  - Misconceptions

- Clarifying misconceptions and misunderstandings

- Implications for teachers

- Wrap-up and questions

The Science of Reading Movement

Test scores, popular media

Teaching reading at the forefront

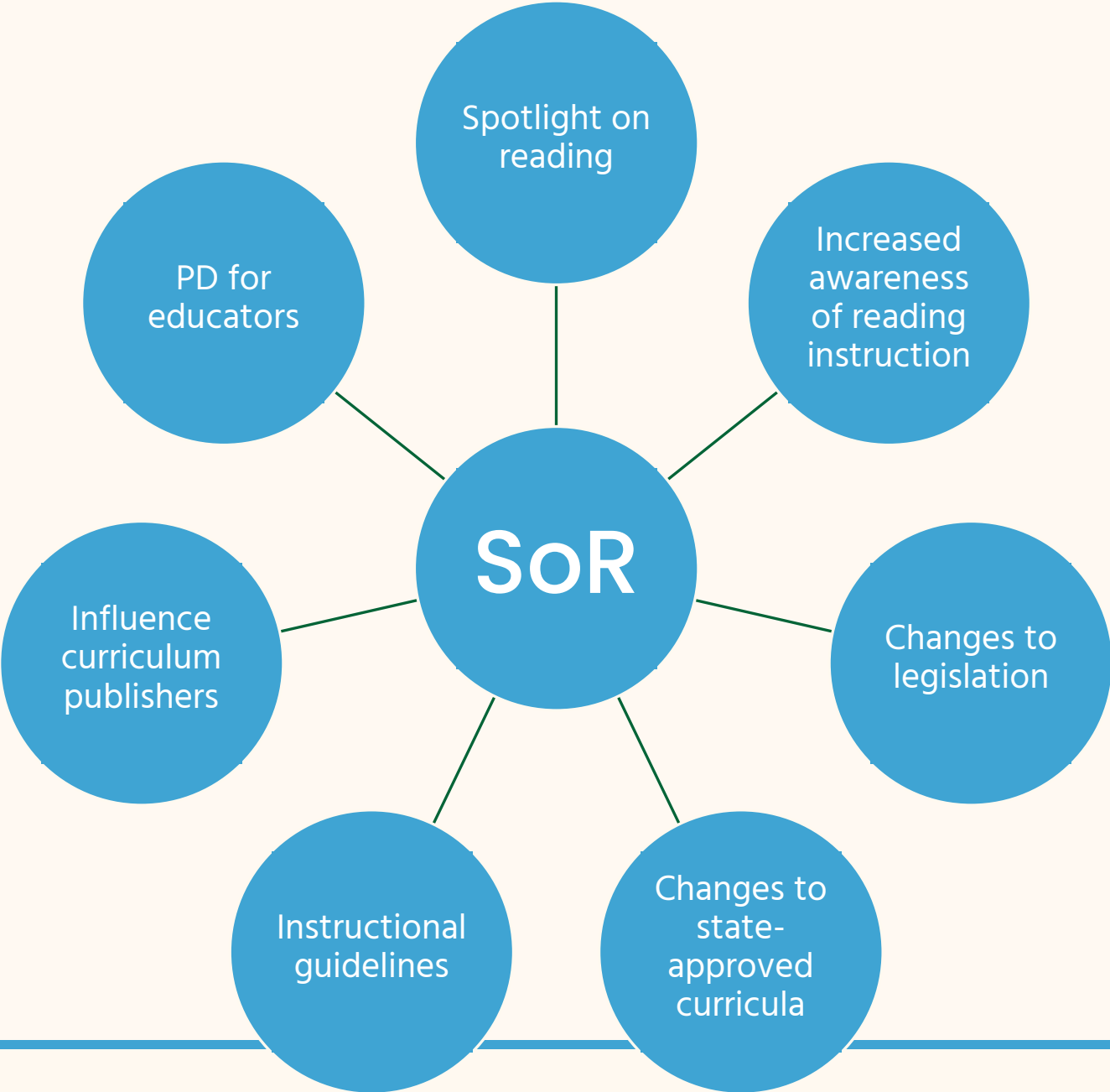Increased interest in using EBPs for teaching reading

Teachers question validity of their practices
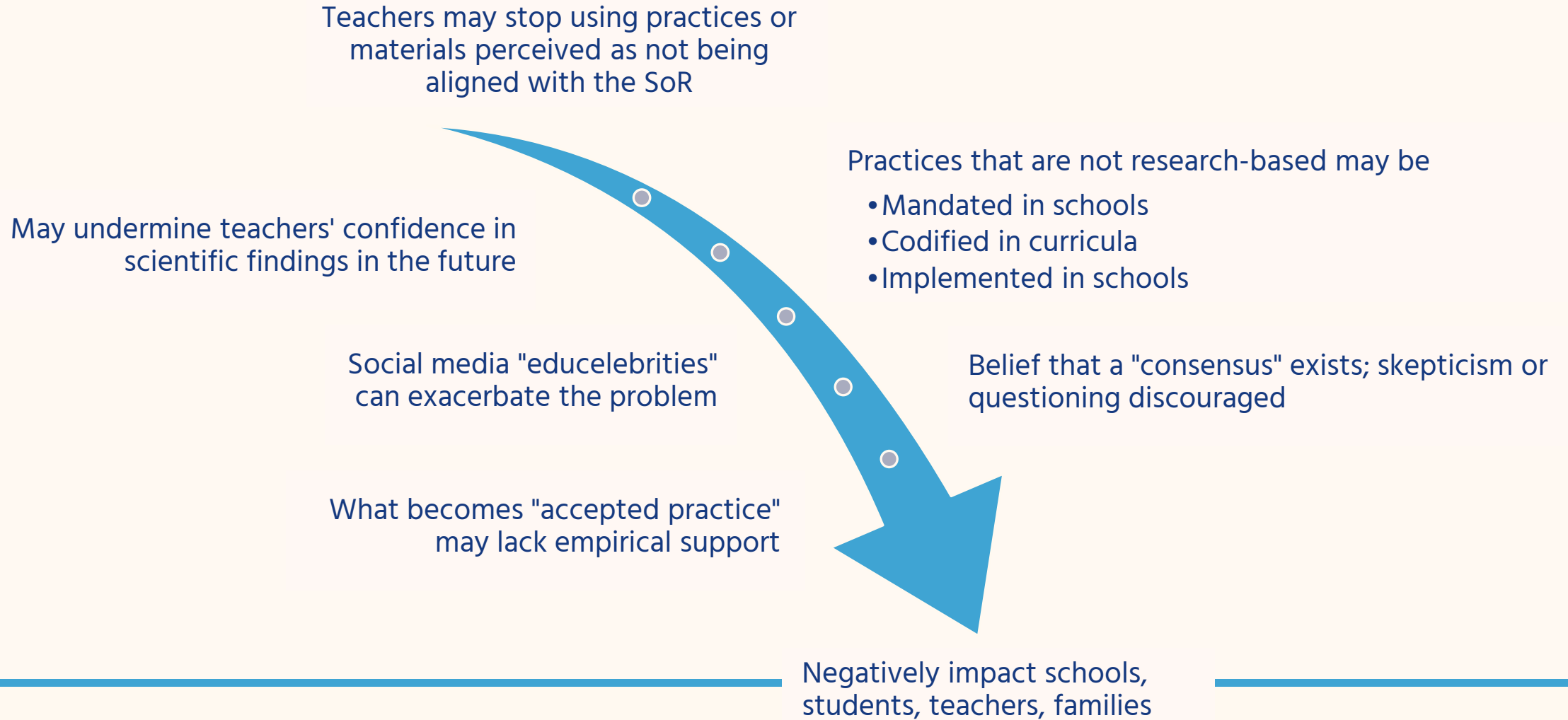
Consequences of the SoR movement
- Benefits
- Misconceptions

Benefits of the SoR

Why are SoR misconceptions problematic?

Teachers may stop using practices or materials perceived as not being aligned with the SoR

Practices that are not research-based may be

- Mandated in schools
- Codified in curricula
- Implemented in schools

May undermine teachers' confidence in scientific findings in the future

Social media "educelebrities" can exacerbate the problem

Belief that a "consensus" exists; skepticism or questioning discouraged

What becomes "accepted practice" may lack empirical support

Negatively impact schools, students, teachers, families

Clarification 1: Does the SoR refer to a program or specific pedagogy?

Misconception: The SoR is a package or specific pedagogy.

- We are "SoR district" or a "SoR school"
- We are "doing the SoR"
- The only effective programs are named "Structured **Literacy" or "Multisensory"**

Effective reading instruction is *based* on the SoR.

- Not a program or pedagogy that can be purchased or adopted
- Program alignment with SoR exists on a continuum

The SOR is not just a curriculum, but includes:

- A connection between PD and the curriculum.
- Screening and progress monitoring tools.
- Teacher knowledge and understanding about how skilled reading develops.
- Practices and strategies supported by evidence.

Clarification 2: Is learning to read a natural process?

Misconception: Learning to read is a natural process.

- If we expose students to a lot of books and read to them a lot, they will figure out how to read!

Learning language is a natural process, but learning to read is NOT a natural process.

- Learning to read does not occur by simply being exposed to it (i.e., Watching and/or listening to someone read)

Research shows most students learn best when:

- Provided explicit, systematic, cumulative instruction in the alphabetic code and taught how to apply to code to read words.
- Taught vocabulary and oral language skills are supported.
- Given many opportunities to read and understand complex text.
- Provided opportunities to practice with support and feedback from the teacher.

Clarification 3: Won't all children learn to read if we wait long enough?

Misconception: All children will learn to read if we just give them more time.

- Just wait a bit longer, and they will catch on!

Learning to read is not an automatic process.

- Some students will learn quickly, others will take more time.
- Using evidence-based reading practices (See #2) ensures students will learn to read faster and with less stress.

Clarification 4: Has the SoR established there is only *ONE* effective way to teach reading?

Misconception: There is ONE way to effectively teach reading.

- If we don't teach in that prescribed manner, students won't learn to read.
- A specific "scope and sequence" must be used.

There are many effective ways to teach students to read.

- Most students do best with an **organized approach** to reading that includes
  - Alphabetic principle, reading words, learning word meanings, accessing complex texts
- **Differentiating instruction** for a range of learners is important
  - Using a set of practices and a strong curriculum will not automatically ensure all students learn to read

Clarification 5: Does the SoR say most of reading instruction should focus on phonics?

Misconception: Most reading instruction should be focused on phonics.

Reasons why phonics has been central to the SoR movement:

- There has been a longstanding debate over phonics (The Reading Wars).
- Many teachers - to no fault of their own - are unprepared to teach phonics.
- Phonics is often neglected in the "balanced" approach to literacy.

Decades of research shows phonics instructions is necessary for most children to learn to read. However,

- Phonics isn't the ONLY component of reading instruction (e.g., vocabulary, background knowledge).
- Phonics should not even be the majority of reading instruction.
- Curriculum developers may have overly weighted materials toward phonics.

Clarification 6: Does the SoR say picture should never be used in reading instruction?

Misconception: Pictures should never be used in reading instruction.

Referring to pictures to decode words is problematic.

- Effective reading instruction targets application of the alphabetic code to read words.

Pictures can be used to promote engagement with the story.

Pictures can also be used to promote comprehension.

- Helps students visualize what's happening in the story
- Verify understanding
- Used to ask and answer questions, make inferences, prompt discussion, connect to knowledge and feelings

(Vellutino & Scanlon, 2002; Scanlon & Vellutino, 1996, 1997; Vellutino et al., 2000)

Clarification 7: What is the role of comprehension in the SoR?

Why is comprehension so rarely the focus of debate around the SoR?

There has been considerable disagreement about the inclusion of phonemic awareness and phonics in reading instruction.

- Practices that help students build foundational skills for word reading, phonemic awareness and phonics are what has been missing from effective reading instruction.

There is no argument about reading comprehension; comprehension is the outcome of reading.

Clarification 8: Does the SoR say decodable texts are a necessary part of instruction?

Misconception: Decodable texts are a necessary part of reading instruction.

What are "decodable" texts?

- A high proportion of words are phonetically regular and/or patterns students have learned.
- The assumption is that students should be able to read the words by sounding them out (i.e., because they've learned the patterns).
- Provide a scaffold to make text accessible and give students an opportunity to practice patterns learned.

Clarification 8 continued: Does the SoR say decodable texts are a necessary part of instruction?

What is the evidence on using decodable texts vs. authentic texts?

- There is little evidence using decodable text is superior to authentic text (Blevins, 2019).
- Other studies showed no benefit compared to authentic text (Jenkins et al., 2004; Price-Mohr & Price, 2019).

When should decodables be used?

- With beginning readers but their use should be faded
- Students should have practice with many text types
- Authentic texts expose students to increased vocabulary, syntax, and background knowledge

Clarification 9: Does the SoR say "leveled" texts should never be used?

Misconception: Don't ever use "leveled" texts.

The problem was not the text themselves but how "levels" and leveled texts were used.

- Schools may throw out their leveled text sets to align their practices with SoR
- Waste of potentially valuable content for reading practice

Students should have practice reading a variety of text types across a range of levels

- Extensive practice opportunities
- Access to "stretch" texts

Clarification 10: Will 95% of all students learn to read if provided instruction aligned with the SoR?

Misconception: 95% of al students can read proficiently if provided instruction in the SoR.

- Unclear how this notion came about
- NCLB legislation (January 8, 2002)

95% of all students reading on grade level is unlikely to be achieved.

- Most students can *improve* reading outcomes if educators have resources, skills, and time to provide effective reading instruction.

Clarification 11: Does the SoR generalize to students who are English learners (ELs)?

Misconception: Reading instruction aligned with the SoR does not benefit ELs.

The SoR extends to ELs and accelerates learning to read (Vargas et al., 2021).

- What is the same about reading for ELs and non-ELs?
  - Models of reading (e.g., The Simple View of Reading; Gough & Tunmer, 1986)
  - Skills that predict reading proficiency or risk
  - Intervention effectiveness

Keep in mind, though, ELs need additional support in oral language.

Clarification 12: Is the 3-cueing system helpful for ELs?

Is the three-cueing system helpful for ELs?

No; all students need to be able to read words.

- Three cueing is not an evidence-based way to teach ELs and non-ELs to read words.

Clarification 13: Is the SoR based solely on implementing whole-class instruction?

Is the SoR based solely on whole-class (core) instruction?

No; multiple group formats are associated with improved outcomes for readers.

- Whole group
- Pairs
  - Fluency practice
- Small group
  - Reteaching, preteaching, providing targeted, supported practice with specific feedback

Clarification 14: Does the SoR say phonemic awareness should be taught without print?

Misconception: Phonemic awareness should be taught without print.

Misconception: Phonemic awareness should be taught in the upper elementary grades.

Misconception: Advanced phonemic awareness skills are necessary for learning to read.

- Adding, deleting, substituting phonemes

What does the research show about teaching PA?

- Reading outcomes are better when PA is taught with letters (NRP, 2000; Stelega et al., 2023).
- PA without letters is appropriate for students who haven't learned letter sounds (e.g., PreK or early K).

Clarification 14 continued: Does the SoR say phonemic awareness should be taught without print?

Why is PA important for beginning readers?

- Segmenting -> encoding
- Blending -> decoding

Good phonics instruction naturally integrates PA.

- K, 1st, and 2nd graders who received stand-alone, oral PA did not do better than students who did not receive it (Coyne et al., 2021; Little et al., 2024).

There is no evidence to suggest training in advanced, oral-only PA skills is necessary to improve reading performance (MacCandiss et al., 2004)

- PA can be practiced while students read and spell words.

Clarification 15: According to the SoR, is a "speech-to-print" approach to beginning reading superior to a "print-to-speech" approach?

Misconception: Students should be taught using a "speech-to-print approach."

What is a "print-to-speech" approach?

- Teach grapheme -> sound

What is a "speech-to-print" approach?

- Teach sound -> graphemes
- "Sound walls"
- Extensive practice in spelling

What does the research say about these two approaches?

- No studies have been done comparing these two approaches

Clarification 16: Does the SoR deem it necessary for students to learn spelling and syllable division rules?

Misconception: The SoR shows that students must learn syllable division rules.

What does the research show about teaching syllable division rules?

- Not established these rules are necessary for learning to read well
- Approaches developed before a lot of the reading research occurred

Concerns with syllable division rules:

- English orthography is opaque
- Rules are inconsistent (Johnston, 2002; Kearns, 2020)

Clarification 17: Does the SoR say that reading nonsense words is a key part of phonics instructions?

Misconception: Students should practice reading nonsense words.

What does the research show about having students practice reading pseudowords?

- Important for *assessing* word reading
- No studies documenting extensive practice in pseudoword reading is beneficial
- Some interventions that greatly improved students' pseudoword reading did not translate to improved reading of real words and connected text (Flynn et al., 2012; Scammacca et al., 2007; Stevens et al., 2021; Torgesen, 2006; Wanzek & Vaughn, 2007)

Reading real words is the goal; have students practice with real words.

Clarification 18: Is the SoR about teaching "The Big Five"?

Misconception: The NRP (2000) identified the Big Five (PA, phonics, fluency, vocabulary, & reading comprehension).

The NRP did not identify "The Big Five."

- The "Big Five" message occurred as part of interpretation of the panel's findings.

What's problematic about "The Big Five?"

- States, districts, and schools interpret this as a framework for reading instruction
- Promotes teaching as isolated components
- Neglects spelling, writing, and BK
- Contributed to the notion PA should be taught separately from phonics
- "Sound walls"
- Extensive practice in spelling

Implications for practice

Teach on EBPs (not programs or buzz phrases)

The SoR is more than a curriculum

Provide explicit, systematic, cumulative instruction in word reading and spelling

Screening

Teach PA with print!

Progress monitoring

Use real words for practice

Teacher knowledge about reading development

PD

Implications for practice

Teach vocabulary and support students' oral language dev

Provide multiple opportunities for students to read a variety of texts

Differentiate instruction

Decodable

A "one-size-fits-all" approach will not work for all students

Authentic

Customization is key!

Stretch

Implications for practice

Don't be afraid to use pictures to support reading comprehension

Practices that work for non-ELs also work for ELs

Use flexible groupings based on the instructional objective and students' needs

- One-on-one
- Small group
- Whole group

Think fluidly about "The Big Five"

- Integrate instruction across these components
- Don't forget about BK, writing, and spelling

Questions?

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