Uses of Phonics-Based and Whole Language/Balanced Literacy Tools in Teaching Reading: How Does the Evidence Support Student Success in the Classroom?

Theresa Engel-Wood, University of Calgary, Canada

Abstract: Reading proficiency is a key predictor of life success and yet there is much disagreement in terms of the most effective way to teach children to read. Research around best practices for specific reading skills has been filled with contention for more than 200 years. The term, the Reading Wars, refers to the debate over whether phonics-based instruction or whole language/balanced literacy instruction is the most effective tool for creating proficient readers. This review sets out to clear up misperceptions around these interventions, to outline evidence for and against specific tools from both sides of the debate, and to detail the application of research to classroom, while noting gaps in research and in teacher understanding. Further research, particularly longitudinal studies, into specific instructional interventions to support reading success is indicated. Educating teachers about evidence-based instructional practices can help inform educators' programming decisions, resulting in increased buy-in and fidelity.

Keywords: Science of Reading, balanced literacy, whole language, phonics, early literacy, reading wars, early reading instruction, phonological awareness, decoding, comprehension, vocabulary, fluency

Introduction

Lack of reading proficiency contributes to inequality, decreased physical and mental health, and involvement in crime, among other social issues (Castles et al., 2018). According to the National Association of Educational Progress, an American organization, as of 2017, fewer than 40% of grade four readers could read at a proficient level and 32% were not even reading at a basic level (U.S. Department of Education, n.d.). A similar finding was stated in a report by Deloitte (2020) where 26% of Grade 3 students in Ontario were reading below grade level, a result that the authors noted is similar to the Canadian average. It is clear that effective, high-quality, evidence-based reading programs and tools are needed, considering the often limited school resources. Educators cannot afford to waste time, effort, and money on inefficient programs and strategies that might compromise student success. How would teachers then feel if they realized that they were using techniques and programs that are not, in fact, as effective as they purport to be?

Contention, emotion, and conflicting opinions have swirled around the creation, implementation, and effectiveness of reading programs and strategies for more than 200 years when Horace Mann first decried the use of explicit phonics instruction in teaching children to read (Castles et al., 2018). The term, Reading Wars, was coined to describe the intense debate surrounding these oppositional viewpoints. The battle raged between those who advocate for phonics-based instruction, where letter-sound correspondences are taught explicitly, and those who support whole language instruction, where children realize meaning through exposure to whole words in a literacy-rich setting (Castles et al., 2018). The advanced neuroscientific research techniques such as fMRI have heated up the academic discourse in recent years (Castles et al., 2018; Debska et al., 2019; Pleisch et al., 2019).

The science of reading (SoR) is a catch-all term for the body of research, found through the scientific method, that addresses knowledge about how we learn to read and about what the best practices are for instruction (Petscher et al., 2020). Generally, evidence from the SoR is used to support systematic phonics-based instructional practices while instruction based on the whole language philosophy relies on other data. Research illuminating the cognitive neuroscience behind the process of learning to read, although always evolving and sometimes contentious, is a cornerstone of the SoR. Through his work with brain imaging, Dehaene (2009) noted that we learn to read by explicit processes including mapping letters to sounds and not by utilizing whole-word memorization. This example backs up the claim that phonics-based instruction is pivotal to learning to read and is referred to by programs espousing explicit phonics teaching. Here, the evidence is often based on facets of brain science including orthographic mapping, for example, with some classroom experimentation results.

Based on the context above, the purposes of this study were to (a) clear up confusion and misperceptions around phonics-based instruction vs. whole language/balanced literacy instruction, (b) detail evidence for, and critiques against interventions from both sides, and (c) outline the application of the research behind these instructional tools to everyday teaching, while noting the gaps between science and the classroom. Accordingly, the research question

for this literature review is: How does research evidence for phonics-based (PB) vs. whole language (WL)/balanced literacy (BL) tools link to successful and effective use to address distinct reading issues in the classroom?

Methods

A traditional narrative review was utilized, with an extensive but not exhaustive review (Efron & Ravid, 2018). Forty-three literature sources were included in this review, with a focus on quantitative studies to access numerical data on the effectiveness of literacy practices, along with some descriptive data from qualitative studies. Keyword searches included the Science of Reading, balanced literacy, whole language, phonics, early literacy, reading wars, early reading instruction, phonological awareness, decoding, comprehension, vocabulary, and fluency; these searches were carried out on Google Scholar, University of Calgary library, and ERIC. Studies related to reading in populations older than the early school years, particularly those beyond Grade 4, were excluded and peer-reviewed studies were the focus, but books and grey literature such as dissertations were also explored, as shown in Table 1.

Table 1

Literature Reviewed

Type of Literature	Number Reviewed
Peer-reviewed articles	31
Books	4
Dissertation/Thesis	2
Reports	3
Article	1
Reference entry	1
Web resource	1

Data and themes were organized using a concept map to make connections, and a spreadsheet was used to organize content and analysis of two broad categories, phonics-based instruction and whole language/balanced literacy instruction, along with specific uses and issues regarding reading in the classroom and targeted instructional strategies.

Results

Several themes emerged during the data collection and analysis process. Three of the most predominant are outlined here, with findings based on these themes, as follows.

Confusion and Contention Around Terms and the Reading Wars

Confusion and disagreement regarding literacy terms, such as phonics, whole language, balanced literacy, and the science of reading, take place not only in the classroom but also among researchers, as noted in Figure 1. Many studies define what these terms do and do not mean so that findings can be clearly situated and explained (Alexander, 2020; Bowers, 2020; Castles et al., 2018; Fletcher et al., 2021; Moats, 2007; Shanahan, 2005). The reading wars, begun hundreds of years ago, continue to contribute to misunderstandings and misrepresentations of instructional tools and programs and of their value (Castles et al., 2018; McIver, 2016).

Figure 1

*Theme: Confusion and Contention*
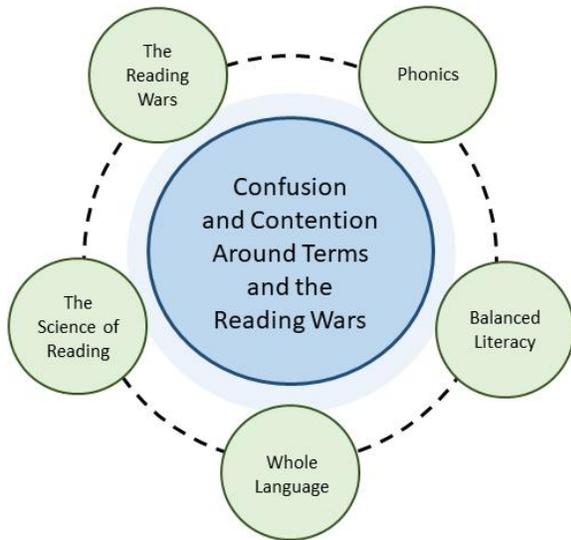
Evidence (or Lack of) for Specific Interventions

Research on specific instruction tailored to specific reading issues, such as the use of decodable books, is often sparse and/or contested (Castles et al., 2018). Evidence to support broader tools is more abundant, but still faces critique, as outlined in Figure 2 (Chapman et al., 2001; Ehri et al., 2001).
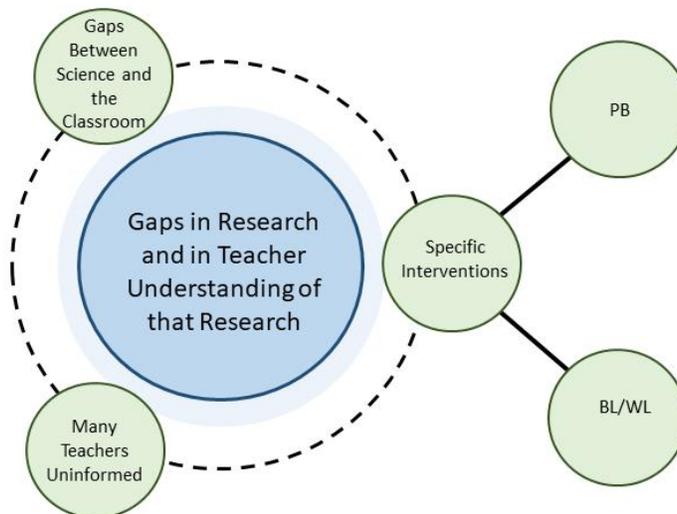
Figure 2

Theme: Evidence
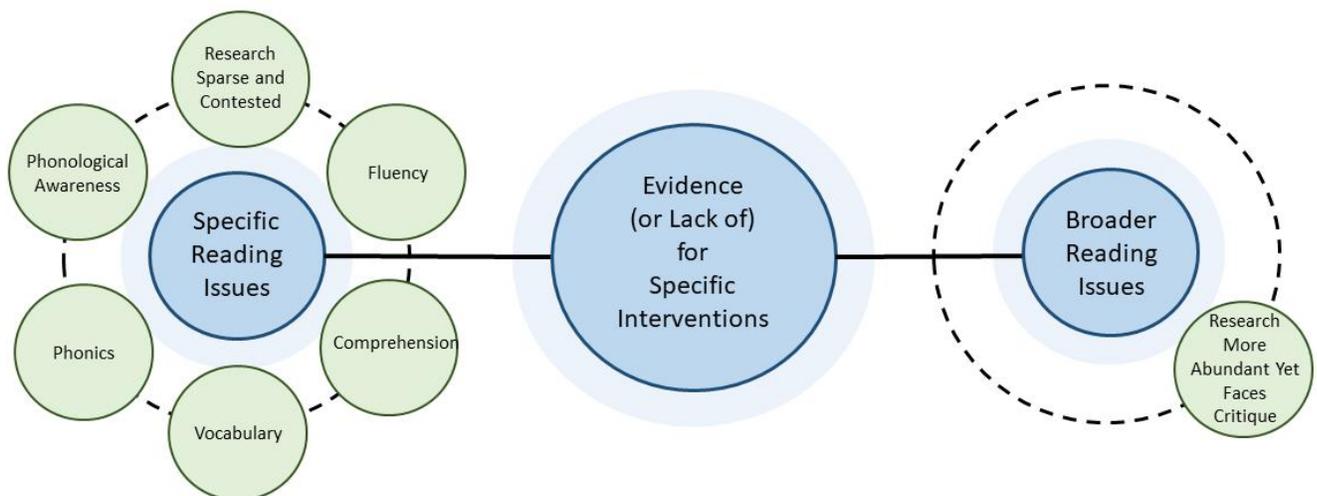
Gaps in Research and in Teacher Understanding of That Research

As shown in Figure 3, there are gaps in the data regarding specific interventions, whether PB or WL/BL (Shanahan & Lonigan, 2010), and there are also gaps between research studies and practical classrooms, leaving teachers uninformed (Seidenberg, 2013).

Figure 3

Theme: Gaps

Discussion

Confusion, Contention, and the Reading Wars

Collecting data for phonics-based and whole language/balanced literacy tools and programs was challenging due to confusion and misrepresentation of those very terms.

Bowers (2020) defined WL as an inclusive philosophy that does include phonics as a facet, while Fletcher et al. (2021) disagreed, noting that WL includes a range of approaches, with many of which not prioritizing explicit phonics and some of which rejecting it completely. Wyse and Bradbury (2022) defined WL as having a focus on real, or trade books, reading for meaning and enjoyment, with phonics being taught in a non-systematic way and always situated in context with related text (Manning & Kamii, 2000). The term, trade books, can be defined as including texts that are not only for instructional purposes but also for enjoyment, and can be purchased in a bookstore (Donovan & Smolkin, 2001). Another common theme in defining WL is that children learn to read naturally, through exposure to text, experience, and enjoyment of reading (Moats, 2007).

Phonics-based instruction comes with a variety of different qualifiers, including systematic, synthetic, analytic, and explicit. The National Reading Panel (2020) defined systematic phonics as a, "…planned, sequential set of phonic elements, and they teach these elements, explicitly and systematically" (p. 2-99), and Castles et al. (2018) agreed, noting the teaching of grapheme to phoneme correspondences in a particular order as a key factor. Synthetic phonics teaches these letter-sound correspondences in a specified order and teaches blending of the sounds into words while analytic phonics starts with the whole word and works the other way, breaking down the word into its sounds and analyzing their relations (NRP, 2000; Castles et al., 2018). Explicit phonics instruction takes place when a skill is explained and modeled, the learning objective is stated, and clear and direct language is used (Buckingham et al., 2019).

Castles et al. (2018) noted that balanced literacy is often thought of as including elements of both sides of the Reading Wars debate, while keeping phonics instruction to a non-systematic and restricted level. Some have now coined the term, balanced instruction, which might include teaching reading in context and balancing understanding meaning with explicit skill teaching (Wyse & Bradbury, 2022).

Without clarification of these terms, the misunderstandings and misrepresentations of their associated meanings and values have often prevented effective implementation of tools and programs by practitioners due to controversy over the validity of WL, BL, and PB approaches.

Evidence (or Lack of) for Specific Tools

Most of the data showed that PB instruction, and more particularly, systematic and explicit PB instruction, was effective in addressing beginning reading skills set out in the five literacy pillars proposed by the National Reading Panel (2000), particularly phonemic awareness and phonics (Castles et al., 2018; Ehri et al., 2001; National Reading Panel, 2000; Stuebing et al., 2008; Taylor et al., 2017). Some of these tools included phonological awareness training (Shanahan & Lonigan, 2010), mixed phonics and sight word instruction (McArthur et al., 2015), decodable books, at least in early decoding (Castles et al., 2018; Cheatham & Allor, 2012), although Jenkins et al. (2004) disagreed with their value, synthetic phonics (Johnston et al., 2012), and explicit phonics instruction (Stuebing et al., 2008). As for the pillars of vocabulary, fluency, and comprehension, data supporting systematic, and therefore inherently explicit, PB instruction was less prevalent, but showed some positive effects in some studies (Buckingham et al., 2022; Castles et al., 2018).

Not all of the data supported systematic PB instruction. Bowers (2020, 2021) found that systematic phonics was not effective and that alternative approaches should be considered, while Wilson (1998) found that there was no measurable difference between WL and PB approaches on the impact of word recognition. Fletcher et al. (2021) noted that although explicit PB instruction is key, the same could not be said of systematic PB instruction, following a planned scope and sequence. Mantei et al. (2021) found that explicit phonics instruction is not the most effective tool for early reading instruction.

While my search found little current literature that deemed phonics instruction as being useless (Smith, 2012), several studies supported the use of both WL/BL and PB instructional tools to optimize reading success. Solity et al. (2020) supported the use of synthetic phonics instruction along with real, or trade books, and Fletcher et al. (2021), recommended explicit PB instruction but also the integration of other elements including differentiating for individual students' needs, while Bowers (2021) supported Structured Word Inquiry, explained as "…a form of instruction that addresses phonology, spelling, vocabulary, and meaning in combination that can be used at any stage of reading instruction" (p. 1968). Suggate (2016) found that phonological awareness training should take place in kindergarten, while decoding instruction should be left for Grades 1 and 2, and interventions for fluency and comprehension generally reserved for Grades 2 and 3. Krashen (2001) found that free reading, a hallmark of WL programs, may be just as impactful as traditional instruction for fluency. Wyse and Bradbury (2022) noted that phonics instruction should be connected with both real and decodable books, and Camilli et al. (2006) found that systematic PB instruction is no more effective than non-systematic instruction.

Generally, although with exceptions, the cited literature supported some level of explicit PB instruction in early reading classrooms. The data also demonstrates that aspects of WL/BL programs such as connecting skills to real, or trade, books, can be integrated with PB instruction to optimize reading success.

Gaps in Research

With the abundance of critique and continuing dialogue in terms of which programs and tools are most effective for specific reading skills in the classroom, more research is needed. Shanahan and Lonigan (2010) found that it is often difficult to interpret the evidence, citing problems with study quality, and that more research on specific reading interventions and skills is needed, including studies with a greater scope of outcome measures. Suggate (2010) noted the need for further longitudinal studies as did Wyse and Bradbury (2022), with the latter also citing the importance of systematic tertiary reviews where experimental trials as well as systematic reviews are explored, and the quality of multiple studies is detailed. Many of the studies accessed for this paper were in the form of meta-analyses, which

have their own limitations such as the exclusion of studies that did not yield statistical results, and the quality of these studies, resulting in Shanahan and Lonigan's (2010) conclusion that "…meta-analysis provides clues to what might be influencing the effectiveness of an intervention but cannot provide the final word on such findings" (p. 283).

Gaps in Teacher Understanding of Research

Teacher understanding of the research is a problem, as illustrated by the disconnect between science and practical application where teachers lean towards using observable data, in part because teachers cannot see the neuroscience happening (Seidenberg, 2013). The brain science regarding how humans learn to read has been generally agreed upon in the research data and yet there continues to be what Seidenberg (2013) called "the two cultures of science and education" (p. 342). Porter et al. (2023) found that teacher knowledge of literacy directly impacted student performance in foundational skills, although not in comprehension, in kindergarten and grade one. The authors concluded that teachers who demonstrated a greater mastery of knowledge around early reading, such as phonemic awareness and morphology, produced improved student outcomes in foundational skills, but also noted that many teachers lack this academic knowledge (Porter et al., 2023). As the focus on evidence-based practices in education grows, a challenge arises as to what is considered evidence, who gets to make that decision, how to inform educators, and why educators continue to depend on their own observations and classroom experience when "…if teachers really could figure out how reading works and children learn just by observation and experience, there would not be a literacy problem or debates about best practices" (Seidenberg, 2013, p. 343). Schildkamp (2018) found that data-based decision-making is a key part of the programming process and that educators need to be involved in that process, made aware of the evidence, and implement instruction based on that data.

Implications

Findings from this literature review can provide guidance for most effective practices in the classroom. The consensus in the literature that I reviewed is that phonics-based instruction is a necessary component to literacy programming in the early years. Most of the current data points to explicit and systematic PB instruction, particularly when it concerns grapheme-phoneme correspondences and early decoding. This conclusion implies that teachers would benefit from training in strategies for explicit instruction as well as from having access to a resource or program that follows a scope and sequence for phonics instruction. To support buy-in and fidelity, educational stakeholders need to be made aware of the data and involved in the process (Schildkamp, 2018). The review findings also point to the integration of some aspects of WL/BL such as making use of trade books as a connection to targeted reading skills.

As for policy, to facilitate the most effective reading instruction in classrooms, according to the abovementioned findings, this could involve both PB instruction as well as WL/BL features. In addition, the Reading Wars need to be put to the side in order to integrate both sides of the dichotomy, based on related evidence. Terms, meanings, and their associated instructional value must be clarified if educational stakeholders, such as district school leaders or administrators, are to make data-based decisions rather than politicized and market-driven ones. Both current and pre-service teachers should be equipped with the neuroscience knowledge behind the process of learning to read along with evidence-based strategies. Programs need to support educators in developing specific knowledge of foundational reading skills if students are to become successful readers (Porter et al., 2023). Further directions in research must include a focus on longitudinal studies on specific programs, interventions, and tools.

Conclusion

This study outlined how evidence for PB and WL/BL instructional tools links to specific reading issues in the classroom and noted some of the critiques related to these techniques. To get a fuller picture of the historical and current data, a systematic review may be needed, based on the amount of literature available and on the gaps in research on specific interventions. Application of research on this topic to practice may be limited by a lack of resources to train and inform educational stakeholders, including teachers, administrators, and district school leaders in order to support PB instructional programs. A second, and more complex, limitation, perhaps in part resulting from the abovementioned constraint, may be a lack of buy-in from educators, who fear yet another swing of the pendulum.

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ABOUT THE AUTHOR

Theresa Engel-Wood received her M.Ed. from the University of Calgary, with a focus on educational neuroscience and on learning disabilities in the classroom, along with a B.A. in anthropology and a B.Ed. from the University of Alberta. She is a classroom teacher with Parkland School Division. Theresa's area of interest involves evidence-based practices for early years literacy instruction and supporting teachers in their efforts to translate the science to the everyday classroom.