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## Response to David Kilpatrick’s comments on ‘A deep dive into phonemic proficiency’

A second version of *A deep dive into phonemic proficiency* has now been published, which addresses comments made by Professor David Kilpatrick about how his program ‘Equipped for Reading Success’ (EFRS) was represented in the original report. The new version corrects some reference details, removes several unnecessary references, provides new supporting references, and has changed the wording of five sentences to improve precision.

Before presenting the list of amendments, I would like to make clear that this report should in no way be used to justify the omission of phonological awareness instruction in early years classrooms. The report includes criticisms of particular recommendations from one popular phonological awareness training program. Specifically, these recommendations relate to the program’s advice on the timing/type of reading instruction, the sequencing of phonological units within activities, the avoidance of letter stimuli, the use of phonemic manipulation activities, and some of the word study activities. Critiquing these recommendations does not equate to dismissing phonological awareness; nor does it equate to dismissing the EFRS approach to teaching phonological awareness. The purpose of the report was to present the evidence that currently exists to support (or not) the recommendations pertaining to the topics listed above. Readers can do what they like with this information, but they should at least be made aware of the uncertainty surrounding those recommendations, so that they can make informed instructional decisions.

Moreover, it is even possible to understand the criticisms levelled at EFRS while also continuing to use some of its resources. For example, there is really no material harm in using the program’s One Minute Activities in the context of ‘warming up’ for a literacy lesson, or in situations when students aren’t seated with a pen and paper. The PAST, too, may quite reasonably be used as a screening tool for identifying students needing additional support. On a broader scale, the program may be lauded for highlighting the important role of phonemic awareness instruction, and for introducing teachers who would otherwise have no interest in the ‘science of reading’ into its community. These positive attributes of EFRS can exist in the same universe as its negative attributes. The usefulness of some of EFRS’s resources does not preclude the possibility that some *other* key parts are problematic. Again, this report is limited to those problematic parts.

Below is the list of amendments made to this report since its original publication.

1. The word ‘published’ has been removed from the sentence beginning ‘(For published examples of the perspectives involved in these debates, ...’ (p. 1). By ‘published’, I meant that the referenced resources had been made available online – not that they were formally released by a publisher. This aligns with APA style guidelines in which blog posts are characterised alongside journal articles as periodicals. That said, there is not necessarily a meaningful distinction in the quality of argument presented via informal versus formal publication. There is, generally speaking, more credence given to peer-reviewed publications, and this factor has been considered in the revision to this report (see point #3 below).

2. The sentence, 'Phonemic proficiency is said to develop via orthographic mapping.' (p. 2) has been amended to 'Phonemic proficiency is said to facilitate orthographic mapping.' The original version is accurate, insofar as a consequence of developing a sight word vocabulary via orthographic mapping is improved phonemic awareness/proficiency. However, EFRS is based on a direction of relationship whereby orthographic mapping is viewed as the end goal, and it makes sense to frame the sentence in this way.
3. Some references to resources that were not peer-reviewed have been removed, replaced or further contextualised so that they are not mistaken for peer-reviewed resources. These include:
  - a. the reference on p. 5 to Shanahan (2017), which has been replaced with peer-reviewed reviews of repeated reading (i.e., Padeliadu & Giazitzidou, 2018; Stevens et al., 2017). This report is not an appropriate place for an extended review of research on repeated reading. However, existing meta-analyses and systematic reviews attribute positive reading gains to repeated reading practices, and arguments in favour of abandoning such practices would be more convincing if supported by similarly large-scale reviews of the literature.
  - b. the reference on p. 9 to Clarke (2022), which is not considered integral to the meaning of the sentence and has been removed.
  - c. the reference on p. 10 to Clemens et al. (2021), which is not considered integral to the meaning of the sentence and has been removed.
  - d. the reference on p. 10 to Hempenstall (2019), which has been replaced by a peer-reviewed meta-analysis of working memory training (i.e., Melby-Lervåg et al., 2016).
  - e. the references on p. 11 to Truch (2003) and (2004), which are studies originally cited by Kilpatrick (2015) and Kilpatrick and O'Brien (2019) to support the efficacy of phonemic manipulation activities. These have been further contextualised with a note in the table to clarify that they are not peer-reviewed studies.
4. Sentences have been reworded if they state that children receiving the EFRS program must *master* foundational skills related to phonemic awareness, letter-sound knowledge and word study, before moving onto phonics instruction. These appear on pages 4 and 6. Kilpatrick (2016) does not explicitly state that children must reach 'mastery' on the listed prerequisites. He *does* state that children may not benefit from phonics instruction until they are in the full alphabetic phase of development or have started developing phoneme-level skills; these claims do not appear to be based on research and there are no supporting citations offered in the EFRS text.
5. Referencing errors have been amended. I am grateful for these having been drawn to my attention.

Below is the list of justifications for retaining original material from this report.

1. Most references to resources that were not peer-reviewed have been preserved, for the sake of accessibility and clarity. This is because they are clearly contextualised as representing the views and/or ideas of the referenced individual(s), rather than research findings (i.e., Brady, 2020, 2022; Dykstra, 2021; Ehri, 2017; Kilpatrick, 2015, 2016; Kilpatrick et al., 2022; Kilpatrick & O'Brien, 2019; Parker, 2022; Seidenberg, 2021, 2022).

2. Aside from point #2 in the list above, no further changes were made to the section 'What does it mean to be phonemically proficient?' The intention of this section is to provide a concise description of orthographic mapping, without explaining the neural or psychological mechanisms by which orthographic mapping is theorised to take place.
3. Nowhere in the report is it stated that EFRS is a reading program; hence, no amendments have been made in this regard. Any criticisms made on this topic are related to advice that Kilpatrick gives on what reading programs are suitable for use alongside EFRS and when they should be implemented (predominantly in Chapter 5 – 'Teaching reading in light of orthographic mapping'). If Kilpatrick's views on this matter have changed since the writing of EFRS, a revised edition to explicate those views is warranted.
4. Nowhere in this report is it stated that Kilpatrick himself believes phonemic proficiency is (or should be) the ultimate goal of implementing EFRS. What is asserted on p. 6 is that it would be reasonable for an educator to interpret the program's guidance such that phonemic proficiency becomes the goal of instruction in a remedial setting. The wording has been preserved, because I think I am justified in considering this a 'reasonable' interpretation.

To expand on this scenario, a hypothetical educator first administers the PAST to screen her hypothetical class of Year 1 students, as advised on p. 93 of the EFRS text. A number of students are identified as demonstrating phonological awareness skills that are below grade-level, according to p. 99 of the EFRS text (e.g., they cannot consistently perform a phoneme elision task within the space of two seconds). Bearing in mind all the advice given in Chapter 5 (including quotes listed on p. 4 of this report), the educator postpones exposure to phonics-based instruction and text, and instead provides the students with phonological awareness training, letter-sound instruction, word study instruction, and a 'linguistic' (word families) approach to reading instruction. Already, this represents a significant cost, in terms of time in the classroom spent *not* developing and practising phoneme-level reading and spelling skills (e.g., p. 85 of the EFRS text recommends a maximum of two 10-minute lessons per day on direct phonological awareness training alone). Even from the point at which the students *do* demonstrate the level of phonemic awareness that is supposed to indicate a readiness for phonics, the educator, following guidance given throughout the book (e.g., pp. 12, 18, 83, 84, 123), will continue to train phonological awareness until the remedial students have mastered the entire EFRS sequence of skills to the point of automaticity. This point, the educator is advised (e.g., p. 76), is the closest representation of phonemic proficiency. The training itself involves manipulating the phonemic constituents of words (e.g., pp. 74–76), with letters and graphemes only presented to students at the introduction of each phonemic awareness 'level' in the EFRS sequence (e.g., p. 79). Even outside of a remedial setting, typically developing students in the educator's class will receive such training through to the end of Year 2, as per advice given throughout the text (e.g., pp. 12, 18, 84, 123).

The above scenario is based on advice that is literally stated on the page numbers cited. If the scenario is one for which Kilpatrick advocates, I would challenge the claim that such advice is justified by research, given the opportunity cost to students. If the scenario is one for which Kilpatrick does *not* advocate, a revised edition to clarify or update his exact recommendations is warranted.

In terms of the hypothetical educator's *goal* for her remedial students, reading proficiency has become the *distal* goal, with the *proximal* goal being her students' phonemic proficiency (as represented by their automatic performance of oral-only advanced phonemic awareness tasks). Theoretically, the phonemic proficiency being demonstrated is expected to have flow-on effects to reading, but that is not the metric that is used to assess whether the students have progressed, and it is therefore not, for all intents and purposes, the goal of instruction.

I appreciate that EFRS is a popular program and that Professor Kilpatrick has introduced many educators to the idea that phonemic awareness is important to reading development. Neither of these factors should mean that EFRS is above critique. Such critiques are important if we want to have any sort of standard for using labels like 'evidence-based' or 'research-based' or 'aligning with the science of reading'. I hope that the revisions listed above will result in a clearer and more accurate version of this report.

*Dr Nicola Bell, June 2023*