



English-Readers Experience Exceptionally Impeded Learning: A Call to Research on Orthographic Impacts on Literacy and Learning Development

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The *International Academy of Research in Learning Disabilities* (IARLD) is promoting this *Call to Research*, distributing it to members, organisations, and interested others, focused on optimising literacy and learning development in current and future generations of children at-risk of, or experiencing, literacy difficulties.

ABSTRACT: What factors cause children in Anglophone nations such as USA, UK and Australia to have such slow development of word-reading, spelling, and independent reading and writing, relative to children in the world's many regular-orthography nations, e.g., Finland, Estonia, Korea, Taiwan, China, and Japan? Why do so many English readers struggle with word-reading and spelling, and independent reading, writing and learning, when this is not happening in so many other nations? Why do children in regular-orthography nations have so much stronger learning skills for subject-area learning from Grade 1, which Anglophone children lack?

The next decades will be an exciting time in literacy research, as we learn more and more about how children learn to read and write, and how we can best optimise their learning.

This *Call to Research* calls to those across nations in the many disciplines working with children, and conducting research on areas impacting literacy development – researchers, teachers, educators, Special Education staff, psychologists and neuropsychologists, speech language pathologists, occupational therapists, social workers, sociologists, anthropologists, ethnologists, and all.

The Call was written in response to presentations and discussions held prior to and at the *International Academy for Research in Learning Disabilities* (IARLD) 45th Annual Conference held at the University of Florida, in October 2023.

It is a call to include in our work a focus on crosslinguistic differences and orthographic impacts on early-literacy development, education and society, through their effects on

1. The cognitive load of the learning children must achieve,
2. The demands this makes on children's cognitive-processing skills, self-esteem, and confidence, and
3. The extent of workload this creates for children, teachers, schools and education systems.

While written in particular to academics in Anglophone nations, it is a global call.

THE CALL TO RESEARCH:

If you want to really understand water, don't ask fish. To fish, water just 'is'. Immersed in it, they can't consider water from any objective perspective.

It seems a similar situation with academics and educators in Anglophone nations, e.g., USA, UK and Australia, as they endeavour to resolve widespread English reading and literacy difficulties, with large numbers of children and adults struggling with reading and writing.

Immersed in the Anglophone experience, it can be difficult to consider that experience using international perspectives. All too often, academics and educators cruise the Anglosphere fishbowl, looking only inward, with the goals aimed for, in areas such as word-reading and spelling, too often set to Anglophone norms, which are sadly low relative to word-reading and spelling norms of many regular-orthography nations.

That is sad, and damaging, especially for at-risk and struggling English-readers, as there is every likelihood best ways forward will be found by looking outward, in considering both

- The world's many regular-orthography nations, and
- Key, highly-effective early-literacy strategies they use.

It is also ethically questionable, given likelihood that Anglophone children have rights to early literacy development acquired as easily and rapidly as children in regular-orthography nations.

Looking inwards, only at English readers, it is unfortunately easy to be complacent, feeling that Anglophone nations are doing as well as is possible. Looking outward at early-literacy development norms of average and weaker readers in non-Anglophone nations, it becomes evident that this complacency is inappropriate – the current situation, the Anglophone status quo, is damaging, with marked improvement urgently needed.

Al Otaiba and Fuchs' 2006 comment of English readers is equally relevant today:

'The gap between proficient and less proficient readers widens over the elementary years (Stanovich, 1986), and remediation of reading problems becomes increasingly difficult after third grade ...

We join a growing number of researchers and educators who have expressed concern that as many as 30% of children at risk for reading difficulties ... may not benefit from generally effective early literacy interventions ... These students have been called "Treatment Resisters" or "Nonresponders" ...

Our work and investigations by others ... have suggested that the percentage of nonresponders among children with learning disabilities may be as high as 50%.'

Looking outward at regular-orthography nations, one sees rapid, easily-developed word-reading and spelling; strong, independent reading, writing and learning skills from early in Grade 1; very few struggling readers; and children with intellectual disability achieving impressively strong word-reading and word-writing.

One also sees a shocking contrast: how wide the crosslinguistic gap is between sadly weak Anglophone early-literacy development, and impressively strong regular-orthography early-literacy development.

Importantly, there is glad news, not just sad news. In looking outward, one can also see Anglophone nations' exciting potential for massive improvement: how the current status quo of slow, impeded word-reading and spelling development, and far too many severely struggling readers, is in many ways optional.

An orthography is a spelling system. In the context of this *Call to Research*, we call particular attention to the orthographies nations choose for their children when learning to read and write.

Most nations are regular-orthography nations. The vast majority use a single impressively regular orthography, e.g., most European nations and African nations have highly-regular orthographies. With spelling so highly regular, European regular-orthography children develop accurate, often adult-level, word-reading and spelling, in a matter of weeks to months (Aro, 2004; Lohvansuu et al., 2021; Lyytinen, 2023; Lyytinen et al., 2021). Few children have word-reading and spelling difficulties, and early intervention works extremely effectively, and can often be actioned preventatively.

Asian regular-orthography nations, Taiwan, Japan, China, and Korea, each have an extremely complex main orthography but use a fully-regular beginners' orthography when children first learn to read and write.

Teaching in regular-orthography nations is easier too, given that, by Grade 2, the vast majority of children who have received appropriate instruction are confident, independent readers, writers and learners.

Using international perspectives of most nations being regular-orthography nations, research studies show Anglophone nations to be sadly weak achievers in supporting children's reading and writing development (e.g., Caravolas, 2018; Frith et al., 1998; Galletly, 2023a, 2023b, 2023c; Hanley et al., 2003; Huang & Hanley, 1997; Knight et al., 2017, 2019; Landerl et al., 1997; Lohvansuu et al., 2021; Lyytinen, 2023; Lyytinen et al., 2021; Lyytinen et al., 2023; Papadopoulos et al., 2021; Seymour et al., 2003; Share, 2008).

Importantly, in regular-orthography nations, children who have intellectual disability also read accurately. That is because regular orthographies minimise both cognitive load and demands for effective cognitive-processing skills, so learning to read and write words does not require healthy working memory and intelligence (Cossu et al., 1993a, 1993b; Galletly, 2023c; Jimenez et al., 2003).

It's an orthographic impacts issue: how Anglophone nations currently manage English orthographic complexity for beginning readers impedes literacy learning and education, creating severe orthographic disadvantage. In contrast, regular-orthography nations manage orthographic complexity effectively for their children, empowering children, education and the nation (Galletly, 2023a, 2023b, 2023c; Galletly & Knight, 2011a, 2011b; Knight et al., 2017, 2019; Lyytinen et al., 2023).

Anglophone nations' management of orthographic complexity is additionally compounded by an age issue: starting children at the very young age of 4.5 to 5 years on highly complex English, one of the world's most complicated orthographies for beginning readers.

At that significantly young age, children's cognitive-processing skills are appreciably immature, significantly weaker than those of Europe's many regular-orthography children who are 7 to 8 years old when in Grade 1 and easily learning to read and write their nation's highly regular orthography (Galletly, 2023b, 2023c; Galletly & Knight, 2011a; Knight & Galletly, 2017; Spencer & Hanley, 2003, 2004; Seymour et al., 2003).

Starting complex learning at such a young age impedes the actioning of executive-function and statistical learning skills, along with building learning resilience; with Acquired Helplessness too often experienced (Galletly, 2023c; Knight & Galletly, 2020; Maier & Seligman, 2016).

The combination of orthographic-complexity impacts and young-age impacts, in turn, creates a host of associated issues, including high child and teacher workload, insufficient time for schools to build readiness and learning resilience prior to children learning to read, markedly reduced years of play, and widespread low literacy skills for effective subject-area learning across too many elementary-school years (Galletly, 2022, 2023b, 2023c, In press).

For beginning learners, English is one of the world's most complex orthographies. Indeed, researchers consider it an outlier to the continuum of orthographic complexity. Using 26 letters for over 40 sounds in 560 to 1120 different spelling patterns, it hits beginners very hard – far too hard, in fact.

Importantly, starting children so young on such a complex orthography exacerbates and continues Anglophone nations' struggles to optimise early-literacy development and difficulties. Relative to many if not most non-Anglophone nations, in Anglophone nations,

- English early-literacy development is far too slow,
- Self-teaching and independent reading, writing and learning are overly delayed,
- Far too many children are struggling readers and writers, with difficulties that are much more severe,
- Schools spend too much time building reading and writing, and supporting low literacy skills,
- Subject-area learning is disadvantaged through long years of insufficiently mature literacy skills,
- Child and teacher workload across the school years is too high, and
- Teachers, schools, and education systems are overly pressured, struggling to achieve effective education.

The issue is not one of spelling reform. Standard English spelling can definitely be retained.

The issue is, instead, the need to manage orthographic complexity extremely well when children initially learn to read and write, so that cognitive load and demands on cognitive processing stay low, and children's confidence and success levels remain high (Galletly, 2023a, 2023c; Lyytinen et al., 2023).

Taiwan, Japan, China, and Korea are the world's role model nations for exemplary management of orthographic complexity for beginning readers in nations with highly-complex main orthographies.

Historically, these nations had far worse literacy struggles than Anglophone nations, as

their main orthographies are extremely complex morpho-logographic orthographies, vastly more complex than English.

They ended their struggles, however, six and seven decades ago, in the 1940s and 50s, by proactively enacting highly-effective 2-Stage Early Literacy, using a fully-regular beginners' orthography first, prior to their complex orthography (Galletly, 2023a, 2023c; Huang & Hanley, 1997; Lyytinen et al., 2023; Taylor & Taylor, 2014):

- Taiwan, Japan, China and Korea reflected on
 - Their too low numbers of effectively literate citizens and too high levels of illiteracy,
 - The impacts these had on society and the economy, and
 - How European regular-orthography nations had rapid, easy progress to literacy and learning.
- They respected the massive negative impacts orthographic complexity was creating, in preventing effective literacy development, exacerbating student and teacher workload, and perpetuating low educational and economic achievement.
- They responded by exploring 2-Stage Early Literacy for reading and writing:
 - Stage 1: A fully-regular beginners' orthography is used when first learning to read and write, e.g., Japan's Hiragana, Taiwan's Zhuyin:
 - Children first learn to read and write their fully-regular beginners' orthography.
 - This easily and rapidly builds statistical learning and self-teaching, phonological and orthographic awareness, and independent reading, writing, learning and self-teaching.
 - Stage 2: The beginner's orthography is then used as a transitioning tool empowering fluency, and learning to read and write the nation's highly complex orthography: Using Stage-1 literacy and learning skills and confidence, from mid-Grade 1, schools simultaneously
 - Action effective subject-area learning (science, geography, etc), using children's well-developed skills for independent reading, writing, self-teaching and learning.
 - Use the beginners' orthography as a strategic learning and self-teaching tool, supporting children to confidently master reading and writing of their nation's complex orthography.
- All four nations found this a wonderfully successful strategy.
- From that time, they have actioned it routinely across all schools.

Anglophone nations are familiar with 2-Stage Early Literacy, through its use in English handwriting development and instruction:

- Stage 1: Schools first teach children to print, deliberately holding back the complexity of cursive writing until children have mastered writing basics and confidently express their thoughts in writing.
- Stage 2: Using and building on children's Stage 1 confident writing basics and learning skills, schools then transition children to using cursive script.

The crux of 2-Stage Early Literacy success is being successful in keeping a key threesome appreciably low: cognitive load, demands on cognitive-processing skills, and learning complexity. A fourth key factor also seems crucial: ensuring children experience ongoing success, and are confident about their learning.

Two-Stage Early Literacy was actioned across schools in Taiwan, Japan, and Korea from the mid-1940s, and across China from 1958. It has worked impressively well. Not surprisingly, from their 1940s-50s change point, all four nations have made highly impressive literacy, education, and economic progress.

The effectiveness of regular orthographies and fully-regular beginners' orthographies is now very well established (Galletly, 2023a, 2023c; Lyytinen et al., 2023; Taylor & Taylor, 2014; Uno et al., 2009): children are very quickly confident, independent, self-teaching readers, writers, and learners, within a few months of starting formal reading instruction.

Importantly, Taiwan, Japan, Korea and China have established very clearly that, when nations choose to use a highly complex main orthography, two orthographies work vastly better than one – as long as the first is a highly regular beginners' orthography! This is a key lesson of the strong success of 2-Stage Early Literacy (Anderson, 2021, Galletly, 2023).

Word-reading and spelling delay and difficulties for both the beginners' and complex orthographies are minor, and intervention works extremely well, particularly when used preventatively (Galletly, 2023c, Knight et al., 2017; Lyytinen, 2023; Lyytinen et al., 2023; Uno et al., 2009).

Behaviourally, the evidence of regular-orthography literacy success is seen most clearly in children's delightfully easy, rapid, strong early-literacy development. At a cognitive-processing and learning-effectiveness level, the pivotal difference that regular orthographies make is in

- Keeping the cognitive load of learning at a manageably low level, in each lesson and learning moment, and across early-literacy development.
- Keeping demands on children's cognitive-processing and learning skills similarly at that manageably low level, in each lesson and learning moment, and across early-literacy development.
- The impacts their ongoing success has on children's self-esteem, self-concept, and confidence.

There's every likelihood that Anglophone nations, too, should use a beginners' orthography. Certainly, use of fully-regular English beginners' orthographies warrants careful exploration (Galletly, 2023b; Anderson, 2021).

Taiwan, Japan, China and Korea are powerful role models, and Anglophone nations will benefit from collaborative research with these nations, exploring early-literacy development, associated progress and workload, and the associated skills children develop as part of early-literacy development.

A 2023 conference poster, *The high cost of orthographic disadvantage*, explores this area (Galletly, 2023a). It is available for download from www.susangalletly.com.au, with an associated information file, with a short video on the topic available for viewing.

A further 2023 Conference poster, *Models for exploring impacts of orthographic disadvantage towards optimising literacy development*, with video, is also available there.

From the early 2000s, Australian IARLD members Bruce Allen Knight and Susan Galletly, at Central Queensland University, began exploring the major crosslinguistic differences currently present in the ease vs difficulties that children, teachers, schools and nations experience in early-literacy development and education generally, which build from regularity vs complexity of the orthographies nations use, and associated orthographic impacts on learning, education, and society (Galletly & Knight, 2022).

In this work, they have developed models for exploring orthographic impacts and crosslinguistic differences:

- The *Orthographic Advantage Theory* model (Knight et al., 2019),
- The *Transition from Early to Sophisticated Literacy* (TESL) model (Galletly & Knight, 2011b),
- The *Differential Disadvantage Model* (Galletly & Knight, 2011a),
- The *Literacy Component Model* (Knight et al., 2021), and
- The *10 Changes* model (Galletly, 2023b, 2023c).

Aware of the decidedly minimal impact their many articles and chapters were having in academic circles, in recent years Galletly has gone further, in writing the *Aussie Reading Woes* trio of books for educators, academics, families of struggling learners, and the interested general public (Galletly, 2022, 2023c, In press); and Galletly and Knight have now joined with David Share in writing this *Call to Research*.

The purpose of Galletly's books (2022, 2023c, In press) is to raise awareness of how major Anglophone struggles are, by international, regular-orthography standards, and equally, the enormous potential Anglophone nations have for strong improvement. The books are not sequential, with each an independent read.

The central book, *The Research Tours: The Impacts of Orthographic Disadvantage*, establishes the research base of crosslinguistic differences, Anglophone struggles, associated *10 Changes* issues, Anglophone nations' potential for improvement, and logical improvement directions. Available as a paperback, and inexpensive eBook, it is also downloadable as a free EPub eBook from www.smashwords.com, using the code EB93M.

The Research Tours explores key research areas in 14 Research Tours, whose titles emphasise key factors:

Tours 1 to 5 explore the major impacts of orthographic complexity:

Tour 1. Too Slow Standard-English Word-Reading Development.

Tour 2. Orthography Is The Key Factor.

Tour 3. Success Inoculation Vs Acquired Helplessness.

Tour 4. Regular Orthographies and Intellectual Disability.

Tour 5. The Power of Beginners' Orthographies.

Tours 6 to 9 explore language and reading contributions to literacy:

Tour 6. Our Epidemic of Language Weakness.



Tour 7. Literacy Components and Quadrants.

Tour 8. Our Too Many Low Literacy Achievers.

Tour 9. Needs for Workload Research.

Tours 10 and 11 consider key cognitive-processing skills:

Tour 10. A Multiple Deficits Vs Phonological Basis.

Tour 11. Executive-Function Skills Empower Word-Reading.

Tours 12 to 14 then explore the intransigent difficulties the Anglosphere has in achieving effective word-reading development in Standard-English at-risk and struggling readers:

Tour 12. Our Impeded Statistical Learning.

Tour 13. Unfamiliar Words: Our Standard-English Nemesis.

Tour 14. Our Insufficiently Effective Word-Reading Intervention.

The book's final chapter is *The 100 Research Questions*, examples of research questions useful for knowledge building, and highlighting the many diverse areas of research pertinent to needed knowledge building.

The 100 research questions are grouped in 20 sections, whose titles highlight key areas needing research:

1. Generic questions for use in all sections below.
2. Our research drought, needs, and directions.
3. Our status quo: Current levels of literacy skills.
4. Language skills for literacy.
5. Literacy components and quadrants: Our balance of word-reading and language skills.
6. The crosslinguistic gap: Major differences of Anglophone and regular-orthography nations.
7. Orthographic advantage and disadvantage.
8. Beginners' orthographies and 2-Stage Early Literacy.
9. The roles of word-reading and spelling in crosslinguistic differences.
10. Our teachers' high workload.
11. Our children's high workload.
12. Differential disadvantaging of at-risk learners.
13. Motivation, engagement, persistence & resilience.
14. Young vs older starting age in learning to read.
15. Models for guiding research and practice.
16. School instruction and assessment practices.
17. Executive-function skills and learning.
18. The ethics of our status quo.
19. The impacts of beliefs on change.
20. Our education future.

All three books of the *Aussie Reading Woes* trio (Galletly, 2022, 2023c, In press) emphasise *The 10 Changes*: ten key directions Anglophone nations will benefit from exploring.

They also include and emphasise a thesis statement on Anglophone difficulties and needed directions, a 2035 goal for Anglophone nations, a set of ABCs of improvement, and an improvement mantra. These are well worth considering within and beyond this *Call to Research*, as relevant and practical tools:

The Thesis Statement:

[Anglophone] education is currently insufficiently effective for most students, and grossly ineffective for our lower-third students – our at-risk and struggling readers. Causal factors include English orthographic complexity and its impacts, our beginners' very young age, many children starting school highly at risk of difficulties, insufficient school resourcing, too high child and teacher workload, and our having too many struggling readers with major difficulties.

Our struggling readers' major instructional needs add additional teacher workload to what is already extremely high workload, making it excessive. This in turn reduces effectiveness of education for all our children because our teachers are too busy to effectively meet all children's instructional needs.

This complex struggling-education problem can be resolved, and powerful positive changes are possible at relatively low expense, if we explore and implement effective methods used in other nations.

Possible changes include using a fully-regular beginners' orthography when children first learn to read and write, raising our starting age for formal reading instruction, adding in strong play-based language enrichment and allied-health intervention supports prior to formal reading instruction, reducing teacher workload, and providing ample, effective school supports.

These changes have powerful potential to expedite early-literacy development and mastering of Standard-English literacy, plus reduce early-literacy difficulties, time pressure and our significantly high child and teacher workload.

These, in turn, can make [Anglophone] education far more effective and considerably less expensive.

The ABCs of Improving Education:

- A. ACT** locally while looking globally.
- B. BOOST** the lower-third to benefit everyone.
- C. CHANGE** effectively to work less and achieve more.



The 10 Changes:

- Change 1.** Understand how orthographies matter: English spelling is dragging us down.
- Change 2.** Own our struggling reader woes: End hypocrisy and pretence.
- Change 3.** Weigh workload: Our children and teachers are working far too hard.
- Change 4.** One-size education does not fit all: Teach to the decidedly different instructional needs of upper-third and lower-third readers.
- Change 5.** End our data deficiency: Build strong knowledge on word-reading levels.
- Change 6.** Enrich every child: Ensure effective supportive tailored education.
- Change 7.** Insist on easy literacy development: Reach regular-orthography nations' achievement levels.
- Change 8.** Investigate the potential of fully-regular beginners' orthographies: They're winners.
- Change 9.** Play to learn first: Start Standard-English word-reading instruction from mid-Year 2.
- Change 10.** Build needed research knowledge as quickly as possible: Use collaborative school-based research.

The 2035 Goal: (Consider 'Australia', used below, a proxy for 'Anglophone nations'.)

By 2035, Australian education will be routinely, efficiently, gently and easily achieving highly effective, rapid development of children's word-reading, spelling, writing and early-literacy skills, in GENTLE manner, in every early-years classroom, in all schools across our nation, as efficiently as is achieved routinely across schools in regular-orthography nations such as Taiwan, Japan and China, with at least 98% of Australian school children being confident, independent readers and writers, able to read 90% of the 10,000 most-frequent words, by age 8.5 years, or within 18 months of starting formal word-reading instruction. (GENTLE: The Gentle, Engaging, Never-Tiring, Learning Enrichment that, e.g., Finland and Estonia achieve, building from their children so quickly mastering reading and writing.)

The Improvement Mantra:

There are no such things as reading difficulties.

There are only teaching challenges.

Jackie French (Australian Children's Laureate 2014-15)

Acceptance speech for the award of 2015 Senior Australian of the Year

Let's Do This! Research is Urgently Needed!

Do please promote research that explores crosslinguistic differences in cognitive-processing, cognitive load, and literacy and learning development. Too many English-reading children, adults, teachers, and schools, are struggling, due to insufficiently effective early-literacy development, and this is inappropriate, given the effectiveness of early-literacy development in other nations. There is currently too wide a gap in early-literacy achievement between struggling Anglophone nations, and high-achieving regular-orthography nations where early literacy and independent learning develop quickly, easily, and impressively well.

Further, the impacts of Anglocentrism go beyond Anglophone nations to also impede progress in developing nations (Share, 2008, 2021, 2023). Lacking an indigenous literacy research infrastructure, all too often, developing nations adopt Anglophone ideas about literacy learning and instruction, and Anglophone teaching methods. This is a most unfortunate error, given profound differences between highly complex orthographies such as English and the typically regular orthographies of most developing nations. Quite likely, continued use of Anglocentric and European methods, where regular-orthography methods are needed, is a significant factor needlessly perpetuating illiteracy in many developing nations.

As Emeritus UNESCO Chair Prof Heikki Lyytinen (2023) emphasises in his Foreword to *The Research Tours*:

Across nations, we need to be discussing orthographies. Their impacts on education are often overlooked. While many nations use highly transparent orthographies, English is highly complex. Orthographic impacts and crosslinguistic differences are major, with widespread ramifications.

It is 15 years now, since David Share's 2008 seminal article, '*On the Anglocentricities of current reading research and practice: The perils of overreliance on an 'outlier' orthography.*' Since that time, the expanding incidence and influence of research on regular-orthography early-literacy development is pleasing to see, being much needed. However, excessive Anglocentrism is still present across reading research, and Share's emphatic 2021 article is aptly named: '*Is the Science of Reading just the Science of Reading English?*'.

More recently, useful guidance for crosslinguistic research has been provided by leading crosslinguistic literacy-development researchers of regular-orthography-nations, Timothy Papadopoulos, Valéria Csépe, Mikko Aro, Marketa Caravolas, Irene-Anna Diakidoy, and Thierry Olive, e.g., in their 2021 seminal article, '*Methodological issues in literacy research across languages: Evidence from alphabetic orthographies*'.

Considering Then Actioning Research Studies

Anglophone nations need research, lots of it, to establish the current truths of their present functioning, plus their potential for solid improvement, and researchers in regular-orthography nations may be keen to engage in collaborative research in pertinent areas.

Where might research start? Galletly and Knight suggest strong value in fact-finding visits, including visits that are part of collaborative research with colleagues in other nations:

‘We emphasise these visits from our personal experience as Anglophone-nation academics, of initially needing to *go and see*, in order to really be able to see and start comprehending crosslinguistic differences. Crosslinguistic differences can initially seem so paradigmatically extreme that they’re difficult to fathom without going to see children in schools in regular-orthography nations, and talk with researchers there.

It can almost seem at times that we live on different planets, with *Planet Regular-Orthography*, and the widespread advantages that regular-orthography nations can enjoy, being a paradigmatically different world to *Planet Complex Orthography*, the world of nations with highly complex orthographies that persist with 1-Stage literacy and its associated struggles, e.g., Australia, US, UK, and Thailand.

That’s because so many Anglophone realities as regards early-literacy development, instruction and difficulties, seem vastly less relevant in regular-orthography nations, e.g., there are massive crosslinguistic differences in the importance of e.g., working memory and phonological awareness, the effectiveness of early-literacy development, instruction and intervention, and in the extent of difficulties experienced, by e.g., lower-third and lowest-tenth achievers; with regular-orthography lower achievers being impressively literate by English word-reading standards.

We found our experience of visiting schools and researchers in regular-orthography nation to be pivotal in developing our understanding of this area, and feel it’s likely others will find similarly.’

Galletly and Knight suggest value in crosslinguistic research visits including

- A strong focus on considering the skills and work samples of lower-third and lowest-tenth achievers.
- Studies of the learning gained in visits by groups of teachers, speech pathologists and school psychologists with strong experience working with struggling readers.
- Heightening knowledge building through programs of reciprocal visits, with
 - Regular-orthography teachers, speech language pathologists and school psychologists visiting Anglophone nations, and their schools and researchers; and vice versa.
 - Conferences and workshops being conducted towards the end of visits, with presentations, discussions, and gathering of data on the knowledge which has been and is being gained.

Towards this end, Questions 8 and 9 of Galletly’s (2023c) *100 Research Questions* are

Question 8. What types of knowledge will be built by Anglophone teachers with expertise in teaching both developing and struggling readers, visiting regular-orthography nations to observe and consider teaching, work samples and data on literacy levels, and have discussions with researchers and teachers, in both

1. Sole-orthography nations using 1-Stage early literacy, e.g., Estonia, Finland or South Korea, and
2. Taiwan, Japan or China, nations currently using 2-Stage Early Literacy, and fully-regular beginners’ orthographies?

Question 9. In what ways can cooperative teacher-researcher knowledge-building be enhanced, e.g., by

1. Including use of standardised summary forms for recording information, which include both survey and open-ended questions?
2. Knowledge gathering and collation of knowledge being coordinated and supported by [national or international co-operatives]?
3. Developing ongoing cross-national partnerships of teachers, schools, towns and districts that enable deep cross-sectional and longitudinal knowledge to be gathered?
4. Building networks across a range of Anglophone and regular-orthography nations so wider experience of nations' practices and achievement levels is built?
5. Having annual conferences, to discuss findings and observations in conjunction with exchange visits?
6. Encouraging and supporting post-graduate Diploma, Masters, and Doctoral studies within this program?

Following preliminary exploration of crosslinguistic differences including cross-national visits, and deep reading of research studies, deeper investigations will be worthy, including cross-national research focused on research areas such as Galletly's (2023c) Research Questions 24 to 26:

Question 24. What crosslinguistic differences are present between [Anglophone] children and children in regular-orthography nations, both sole-orthography nations (e.g., Finland, Estonia) and Taiwan, Japan and China (nations that moved last century to 2-Stage Early Literacy), as regards ease of development and progress rates for

1. Functional literacy skills, including accuracy and fluency of word-reading, spelling, vocabulary and language skills used in literacy, and independent reading and writing?
2. The range of language skills used in literacy, e.g., [skills list provided]?
3. Key literacy subskills including orthographic skills and knowledge, phonological and phonemic awareness, and diverse executive-function skills, including inhibition control, cognitive processing, working-memory efficiency, statistical-learning efficiency, and skills for working independently, to action and complete tasks?

Question 25. With reference to thirds, tenths, and the lowest and highest 5% and 2% of achievers,

1. To what extent are crosslinguistic differences heightened in lower-achieving readers and writers?
2. In crosslinguistic differences evident in lower achievers, what is the role of weakness in phonological and phonemic awareness, letter-sound and orthographic awareness, and executive-function skills?
3. How does the word-reading, spelling, and independent reading and writing, of regular-orthography children with intellectual disability compare with that of Anglophone children, both those with intellectual disability, and those of healthy ability?

Question 26. What differences exist in the number of risk factors, and their extent of influence in impeding early-literacy development in regular-orthography vs Standard-English at-risk children?

1. What roles do high cognitive load, complex learning, and the impeded statistical learning that Standard-English readers experience across learning to read, play in
 - a. Increasing the number of risk factors for Anglophone children?
 - b. Increasing the likelihood that risk factors will be activated for Anglophone children, resulting in reading and writing difficulties?

IARLD's Actioning of This Call to Research

Thank you for reading this document.

A key purpose of the *International Academy for Research in Learning Disabilities* (IARLD) is to foster collaborations such as this *Call to Research*, and to organise opportunities for collegial exchange: '*to co-sponsor public forums with other research-oriented organizations*'.

It is likely many individuals and organisations would choose to co-sponsor, disseminate, and discuss this call. Towards this end it is proposed that

- This *Call to Research* be circulated by members and others to individuals and associations interested in, and working towards, improving early-literacy development in Anglophone nations.
- IARLD members and interested others be encouraged to consider research-oriented organisations they are aware of, and make contact with them, forwarding this *Call to Research*.
- Active consideration of this *Call to Research* will be encouraged though
 - A Pre-Conference Discussion Day be held on the day prior to the 2024 and 2025 IARLD Conferences on the topic of '*English-Readers As Exceptionally Weak Achievers: A Call to Research on Orthographic Impacts Across Early-Literacy Development*'
 - The 2024 discussion day will be held at Jan Kochanowski University in Kielce, Poland, on 2 July 2024, prior to the 46th IARLD Conference on 3-4 July, 2024.
 - Both the conference and the pre-conference discussion day are open to all interested attendees, including those who aren't members of IARLD.
 - Information on the 2024 and 2025 discussion days, including an invitation and registration details, will be available on the IARLD website (www.iarld.com).
 - A Special Issue of the *International Journal for Research in Learning Disabilities* (IJRLD; www.iarld.com/iarld-journal) will be dedicated to the topic of this call to research, with interested academics invited to make enquiries, and submit manuscripts.



Please would you share this *Call to Research* with relevant others, including colleagues, associations, educators and health professionals, schools and education governing bodies, families of struggling readers, adults with dyslexia, and interested others.

In sharing it, please would university staff forward the *Call to Research* to those in relevant departments at your university and other universities, including Education, Special Education, Psychology, Neuroscience, Speech Pathology, Occupational Therapy, Sociology, Social Work, Anthropology, and Ethnology.

The *Call for Research* is available for download on the IARLD website, www.iarld.com.

For further information, please email iarldoffice@gmail.com.

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