Journal of Teaching and Learning
Vol. 20, No. 2 (2026), pp. 390–412
https://doi.org/10.22329/jtl.v20i2.9851
www.jtl.uwindsor.ca

The Bibliometric Analysis of Interventions in English Literacy Difficulties of Primary School Students with Dyslexia

Sri Wahyuni
Universitas Islam Riau
Universitas Negeri Yogyakarta

Febrina Dafit
Universitas Islam Riau

Asnawi Asnawi
Universitas Islam Riau

Fauzul Etfita
Universitas Islam Riau

Abstract

This study aims to map the research landscape on English literacy difficulties and interventions among primary school students with dyslexia using a bibliometric approach. Data were retrieved from the Scopus database using targeted keywords, resulting in 63,184 documents. After applying filters for publication year (2020–2025), subject area (social sciences), language (English), and open-access status, a final dataset of 1492 relevant articles were obtained. Following this, the analysis was subsequently performed in RStudio using Biblioshiny and visualized with VOSviewer. The results indicate a substantial decrease in annual growth in publications, despite high levels of author involvement and collaborative endeavours. The United States and the United Kingdom dominate in production and citation impact, and notable journals, scholars, institutions, and nations are among the key contributors. Likewise, four major research areas emerged from the thematic cluster analysis: foundational literacy skills, learning disorders in school settings, speech and communication difficulties, and educational psychology topics such as self-esteem. Findings from this study underscore the need for early,

organized, and comprehensive interventions for children with dyslexia, a condition with several facets. To close the gap in dyslexia-related scholarship worldwide, it also highlights the need for more inclusive, geographically diverse research collaborations.

Introduction

English literacy, encompassing reading and writing, is a key skill for primary students, forming the basis for learning in subjects like science, math, and social studies (Gomes et al., 2016). Early literacy strongly predicts future academic success (Peixoto et al., 2023), and students with solid reading and writing abilities are generally better prepared for higher education and career opportunities (Tsagari & Sperling, 2017).

Early intervention is essential for addressing literacy challenges. Strategies like dialogic reading have been effective in supporting English language learners (ELLs) by enhancing their oral language skills (Kennedy & McLoughlin, 2023). Beyond school, the home environment also plays a critical role; children with rich early literacy experiences tend to perform better in primary school (Bigozzi et al., 2023).

Globally, 7.10% of primary students are estimated to have developmental dyslexia (Yang et al., 2022), which mainly impairs reading and writing. Dyslexic children often read slowly, make frequent decoding errors, and struggle with comprehension and spelling (Ali et al., 2025; Chan et al., 2004; Van Setten et al., 2021). Writing may also be difficult, with issues in handwriting, idea organization, and grammar (Chan et al., 2004; Isa et al., 2019).

From a cognitive-linguistic perspective, phonological awareness deficits are a core characteristic (Chalmpe & Vlachos, 2025; Van Setten et al., 2021). Difficulties with working memory, attention, and processing speed further impact academic performance (Chalmpe & Vlachos, 2025; Xiao et al., 2022). Emotionally, dyslexic students may experience anxiety, frustration, and low self-esteem, which can lead to withdrawal from learning activities and social difficulties (Chan et al., 2004; Novita, 2016; Xiao et al., 2023). Additional signs may include poor motor coordination and, in some cases, grade repetition due to ongoing academic struggles (Chalmpe & Vlachos, 2025; Van Setten et al., 2021).

However, fragmentation in previous research on interventions for English literacy difficulties among elementary school students with dyslexia persists in the current literature. As shown by past studies, research has focused on specific learning approaches, cognitive barriers, or emotional issues encountered by students with dyslexia. These points create a notable gap in the systematic and analytical coverage of this area, as reflected in how research on English literacy and dyslexia in primary schools has evolved, which themes dominate current discourse, and where international collaboration is most active. As a result, educators and policymakers may lack holistic foundational references to support reliable interventions and allocate resources in line with evolving needs.

To fill the knowledge gap, this study applied bibliometrics. Bibliometric analysis, a quantitative research methodology, is a highly effective tool for examining publishing trends, citation influence, and collaboration (Donthu et al., 2021; Mayr et al., 2018; Zupic & Čater, 2015). With this approach, the most prolific authors, emerging trends, and conceptual frameworks within a particular research domain can be identified. Specifically, in the context of elementary education studies focused on interventions, English literacy difficulties, and dyslexia, this approach is highly

relevant. It can be used to track the dynamics of research developments and identify areas requiring further exploration.

Consequently, the purpose of this study is to compile a thorough bibliometric review of studies that have examined interventions in English literacy difficulties among dyslexic primary students. By analyzing the composition and evolution of the current literature, the study identifies key trends, significant contributors, and recurring themes in this field.

Specifically, the objectives are to (1) identify the publication trends and research productivity related to interventions in English literacy difficulties among dyslexic primary students, (2) determine the most influential authors, journals, and institutions, (3) analyze international collaboration and its impact on citation metrics, and (4) explore the dominant thematic clusters within this research area. The findings of this study are expected to provide valuable insights that can inform future research directions, support educators in implementing effective interventions, and assist policymakers in developing inclusive educational strategies for students with dyslexia.

To accomplish these research aims and objectives, the following research questions are hereby formulated:

1. What are the major research trends and publication patterns related to interventions in English literacy difficulties among dyslexic primary students between 2020 and 2025?
2. Which journals, authors, and institutions have contributed most significantly to this field of study during the period under review?
3. Which countries demonstrate the highest research productivity and citation impact in English literacy interventions for dyslexic primary students?
4. What are the dominant thematic clusters in the research on English literacy interventions for dyslexic children in primary schools, and how are they interconnected?

Literature Review

Research on dyslexia and literacy development

Research has long established that dyslexia is a multifactorial learning disorder characterized primarily by deficits in phonological processing (Faísca et al., 2023; Prabhu et al., 2024; Ring & Black, 2018), decoding (Georgitsi et al., 2021; Handler & Fierson, 2011; Peterson, 2014), and working memory (Barbosa et al., 2019; Medina & Guimarães, 2021). These deficits often result in persistent challenges in reading, spelling, and writing, particularly among primary school children (Lee & Ha, 2025; Tambyraja et al., 2023). More recent studies emphasize that dyslexic learners also struggle with foreign language acquisition, such as English, due to difficulties in pronunciation, spelling, and memory retention (Dimililer & Istek, 2018; Kamal, 2020; Mayorova & Sinitsyna, 2018).

In the context of literacy development, two primary theories, including the phonological deficit theory (Snowling, 2000) and the dual deficit hypothesis (Wolf & Bowers, 1999), have dealt in depth with the concept of literacy barriers. Various literacy difficulties are attributed to delays in phonological processing and slow naming speed, as both theories explain. Dyslexia, as demonstrated by numerous research findings, involves complex cognitive and linguistic aspects. This complexity is often a major source of additional challenges in multilingual learning, particularly for ELLs.

This implies that pedagogical strategies, linguistic frameworks, and cognitive models are key elements to incorporate into a multidimensional approach to conducting an in-depth analysis

of dyslexia and literacy development. Likewise, difficulties with reading and writing in the first language, as well as the complexities of learning a foreign language such as English, are key factors to consider when designing effective literacy interventions for dyslexic students.

To achieve these goals, this study applies bibliometric methods to map the various forms of interventions developed and to explore the direction of research in related fields. Through this approach, the research aims to identify the most effective interventions and uncover any remaining shortcomings in previous studies.

Emotional and psychosocial dimensions of dyslexia

The emotional and psychosocial impacts of dyslexia are also receiving increasing attention in various studies. Increased anxiety and depression (Ihbour et al., 2021; Wang et al., 2023; Xiao et al., 2022, 2023), as well as low self-esteem (Nasika & Thoma, 2023; Zuppardo et al., 2020), are common in elementary school students with dyslexia, particularly as a result of repeated academic difficulties and experiences of marginalization (Anderson, 2009; Sadeghi et al., 2024; Vizhi & Rathnasabapathy, 2023).

Similarly, some studies report that these problems are worsened or can be addressed through interactions with teachers and peers (Leslie, 2025a, 2025b; Yildiz et al., 2012). Alternatively, other research suggests that regular parental support has a protective function by improving educational outcomes and fostering resilience in ELLs (Leslie, 2025a; Poullet & Wendland, 2021).

In addition to their academic performance, these studies underscore the significance of addressing the psychosocial well-being of dyslexic learners. It is implied that interventions for these ELLs should adopt a holistic framework that addresses cognitive and linguistic difficulties, as well as emotional and social well-being. This paper argues for systematically mapping current initiatives and research trends through a bibliometric approach. Using this method, it is possible to discover beneficial solutions and identify gaps in areas where psychosocial dimensions are not yet fully understood.

Intervention programs and their effectiveness

Building on the aforementioned issues, it is crucial to review prior studies on interventions and their effectiveness. Numerous investigations have documented structured and efficacious interventions aimed at enhancing phonological awareness (Layes et al., 2022; Lee & Kim, 2025; Munro, 2017; Wise et al., 2016), as well as auditory and visual memory (Fusco et al., 2015; Lawton, 2016; Peters et al., 2019; Van Herck et al., 2022), and reading comprehension (Harrar-Eskinazi et al., 2022; Mazaheri et al., 2024; Soriano-Ferrer et al., 2025; Zygouris et al., 2018). In the case of literacy outcomes, these interventions have resulted in significant improvement when implemented in the early stages of primary education (Lawton, 2016; Mazaheri et al., 2024).

Concurrently, early-stage therapy programs aimed at fostering emotional resilience have been advocated as a means of reducing stress and psychological burden (Alexander-Passe, 2008; Łodygowska & Czepita, 2012). While these approaches have demonstrated efficacy in local contexts, they often lack scalability and broader applicability, limiting their worldwide relevance (Alqahtani, 2024; Hall et al., 2023; Toffalini et al., 2021). These limitations underscore persistent structural deficiencies in dyslexia research, particularly the lack of an integrative framework that holistically encompasses cognitive, emotional, and contextual dimensions.

Therefore, while profound, existing knowledge of dyslexia interventions remains fragmented and highly context-dependent. There is an urgent need for a more comprehensive synthesis of research trajectories and intervention outcomes to bridge micro-level pedagogical insights with macro-level policy and strategic frameworks. To this end, this study adopts a bibliometric methodology to systematically map the global research landscape on intervention efficacy, assess its impact, and uncover remaining gaps that hinder scalability and long-term educational transformation.

Geographic and methodological gaps in research

The strength of existing literature lies in its multidisciplinary scope, integrating psychology, education, linguistics, and special education to provide a holistic understanding of dyslexia as both a cognitive and socio-emotional challenge. However, this comprehensive approach has not fully addressed several limitations. Research remains heavily concentrated in Western contexts (Wu et al., 2022; Zhang et al., 2021), with limited representation from Africa (Janaarthanan & Nithyanandam, 2020), Central Asia, and parts of the Middle East (Aldakhil, 2024; Sharma & Sagar, 2017; Sun et al., 2013).

Worldwide collaboration is also still limited, restricting the diversity of perspectives and the interplay of intervention approaches (Han, 2025; Whitley et al., 2018). Furthermore, many intervention studies still focus on the short term (Thurmann-Moe et al., 2021) and lack longitudinal evaluation of outcomes and sustainability (Omar et al., 2023).

Thus, bibliometric mapping serves as a critical methodological tool for visualizing these disparities, enabling researchers to identify underrepresented regions, collaboration networks, and structural gaps in global publication patterns (Donthu et al., 2021). This implies that future research on dyslexia interventions should prioritize greater geographic inclusivity and cross-cultural collaboration to ensure that findings are globally representative and contextually adaptable.

Methodologically, there is an urgent need for longitudinal and comparative designs that can assess the durability of intervention effects over time. In this study, the identified gaps justify using a bibliometric approach to examine the global distribution, collaboration networks, and methodological patterns in dyslexia research, thereby identifying underexplored areas and informing more equitable and inclusive research practices.

Rationale for the present study

The rationale for this study is based on the previous studies that highlight cognitive, emotional, and pedagogical dimensions of dyslexia. Nevertheless, the understanding of this field is still fragmented because of spatial inequalities, the limitation of inclusivity, and short-term interventions (Han, 2025; Whitley et al., 2018). To mitigate these limitations, this study applies bibliometric analysis to offer a reliable framework for outlining worldwide research trends, publication patterns, and thematic priorities from 2020 to 2025.

Through this approach, this paper aims to provide a more comprehensive and inclusive insight into English literacy difficulties among primary school students with dyslexia. Likewise, this study identifies potential areas for future research and promotes broader global collaboration to achieve educational equality.

Method

Study design

A bibliometric approach was used to identify knowledge gaps and guide future research on interventions to address English literacy barriers among primary students with dyslexia. This analysis offers an overview of research developments over time, revealing trends and patterns through a quantitative examination of bibliographic data, as noted by Donthu et al. (2021) and Mayr et al. (2018). Furthermore, this approach allows for a systematic and numerical evaluation of research progress (Zupic & Čater, 2015).

To strengthen its conceptual foundation, the analysis was grounded in bibliometric theory, drawing on Price's Law of exponential scientific growth (Price, 1963) and Lotka's Law of author productivity (Lotka, 1926). These basic models explain how scholarly output, collaboration, and citation patterns develop across disciplines, offering a theoretical perspective for interpreting research productivity and influence. By applying these bibliometric principles, this study goes beyond descriptive mapping to evaluate the structural maturity and dynamics of knowledge diffusion in the fields of dyslexia and English literacy research.

Data source

The data sources that were used in this study were obtained from the Scopus database. This source is utilized because it is globally acknowledged as a reliable and comprehensive index of peer-reviewed scientific databases, as confirmed by previous studies (Baas et al., 2020; Pranckutė, 2021; Wahyuni et al., 2024). To ensure methodological rigour and relevance, the search was then limited to journal articles published in the social sciences, open access, written in English, and indexed between 2020 and 2025.

The time frame in this study was selected to capture recent advances in literacy intervention strategies, reflecting current pedagogical and technological innovations. The year of publication was limited to the last five years to ensure that the analysis includes studies utilizing the latest methods and technologies, which are likely to be more robust and reliable (Hong & Pluye, 2018).

Data collection

To obtain the data from the Scopus database, the keywords employed were TITLE-ABS-KEY ("intervention" OR "strategy" OR "approach" OR "method") AND ("English" OR "language" OR "linguistic" OR "communication") AND ("learning" OR "acquisition" OR "education" OR "development") AND ("dyslexia" OR "reading disorder" OR "learning disability" OR "specific learning difficulty") AND ("support" OR "assistance" OR "treatment" OR "remediation").

This search yielded 63,184 papers as of March 2025, exceeding the minimum requirement of 200 documents for a valid bibliometric analysis, as suggested by Rogers et al. (2020). After applying filters for language (English), publication type (article), publication period (2020-2025), and open-access status, the dataset was reduced to 3849 papers. A final screening for topic relevance yielded 1492 articles. The selection process adhered to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (Page et al., 2021), to ensure transparency and replicability.

Data analysis

To analyze the data, RStudio's biblioshiny package was then used to perform descriptive and network-based bibliometric analyses. This software is used because its capability enables quantitative assessment of publication patterns, citation structures, and author collaboration networks, offering information about influential researchers, conceptual frameworks, and emerging research themes, as recommended by Aria and Cuccurullo (2017) and Donthu et al. (2021).

Additionally, to improve visualization and thematic exploration, VOSviewer was employed to generate co-authorship, co-citation, and keyword co-occurrence maps, as suggested by prior studies (Al Husaeni & Nandiyanto, 2021; Soegoto et al., 2021; Suryantoro et al., 2023).

Results

The following section presents the findings of the bibliometric analysis in line with the research questions. Initially, it provides a brief overview of research trends and publication patterns from 2020 to 2025 associated with English literacy difficulties among dyslexic primary students. It then analyzes the foremost journals, authors, and institutions that have made significant contributions to this field. Third, it analyzes the countries with the highest levels of research productivity and citation impact. Finally, it identifies the dominant thematic clusters that characterize the research landscape.

Figure 1 provides a clear overview of academic publishing during this period, where a total of 1492 documents were published. However, despite this output, the field saw an annual growth decline of 24.61%. The number of contributors remained high, with 5133 authors involved. On average, each publication had around four co-authors, although only 20.84% of the publications involved international collaboration.

In addition, 118 papers were single-authored, showing that solo research continues but is not dominant. Publications were spread across 433 sources, with 93,453 references cited, and 3690 unique author keywords recorded. The documents had an average age of 2.7 years, and each received about 7.4 citations, indicating that the field is both recent and moderately impactful.

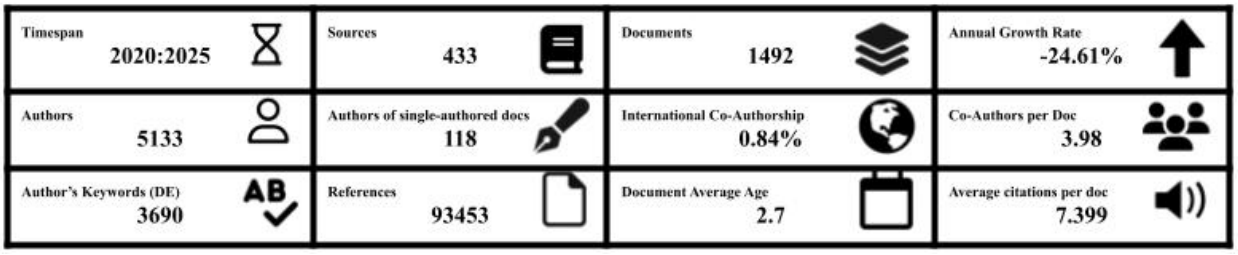

Figure 1: Overview of bibliometric descriptors for articles on English literacy and dyslexic primary students.

Regarding publishing outlets, Figure 2 highlights the top 10 journals. The Journal of Applied Research in Intellectual Disabilities ranked first with 69 papers, followed by Frontiers in Education (63) and Sustainability (Switzerland) (53), suggesting an interdisciplinary focus on education, societal development, and sustainability. Other contributors included the Journal of

Speech, Language, and Hearing Research (50) and Education Sciences (44). Mid-level journals included the International Journal of Language and Communication Disorders (37), Dyslexia (34), and the American Journal of Speech-Language Pathology (33), with the list completed by Language, Speech, and Hearing Services in Schools (32) and the European Journal of Special Needs Education (31). This distribution reflects both diversity and specialization across education, communication disorders, and special needs research.

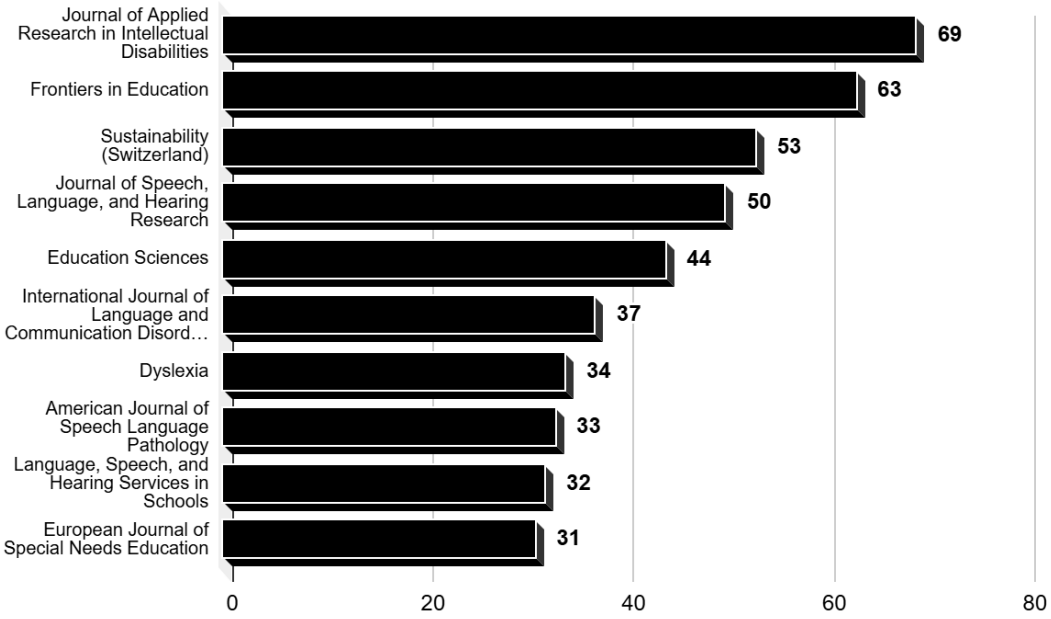

Figure 2: The distribution of pertinent publication outlets.

Regarding authorship, Figure 3 identifies Sharon Vaughn as the most prolific researcher, with 10 published documents. She is followed by Philip Capin with 9, and Johny Daniel, Gail Gillon, Richard Hastings, Mohamad Ahmad Saleem Khasawneh, and Suze Leitão, each with 8 publications. Robert Didden, Peter Langdon, and Greg Roberts contributed 7 each. This distribution indicates a relatively balanced authorship pattern, with no single scholar dominating.

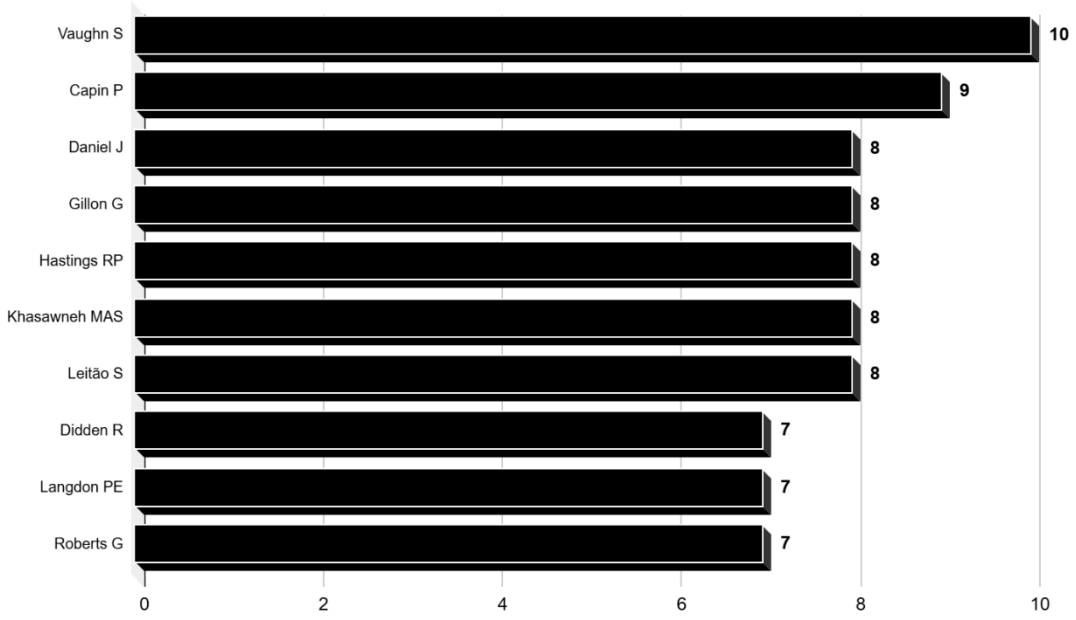

Figure 3: The ten foremost authors.

Figure 4 presents the most active institutions. The University of California leads with 77 publications, followed by the University of Cambridge (54) and the University of Amsterdam (51). Florida State University and University College London also contributed significantly with 50 and 45 publications, respectively. Other key contributors included Radboud University (42), the University of Canterbury (40), the University of Texas at Austin (35), Arizona State University (34), and the University of Calabar (32). These institutions highlight the concentration of research in Western hubs, alongside emerging contributions from Africa.

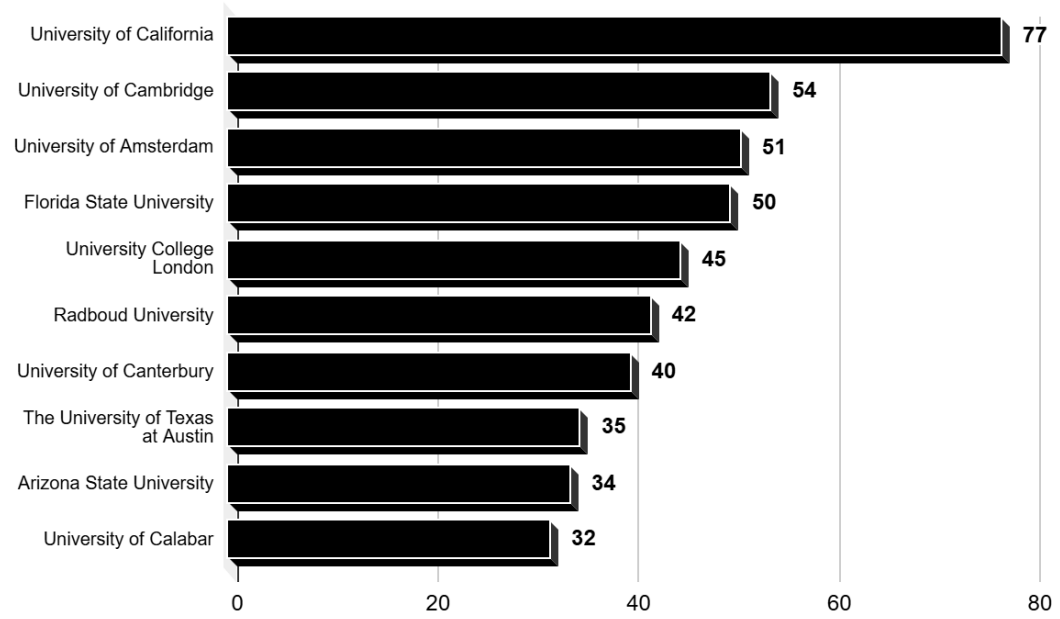

Figure 4: The ten foremost affiliations.

At the national level, Figure 5 illustrates global patterns. The United States dominates the field, followed by the United Kingdom, with additional contributions from Australia, Canada, the Netherlands, and Germany. Moderate participation was recorded from India, China, Brazil, Nigeria, and South Africa. At the same time, regions such as Central Africa, Central Asia, and parts of the Middle East had little to no indexed output.

Figure 5: The geographical distribution of publication outputs by country.

The analysis of citations, illustrated in Figure 6, highlights the USA as the most influential country with 2060 citations, followed by the UK (1888) and the Netherlands (495). This strengthens the observation that the field is dominated by Western countries in both output and impact.

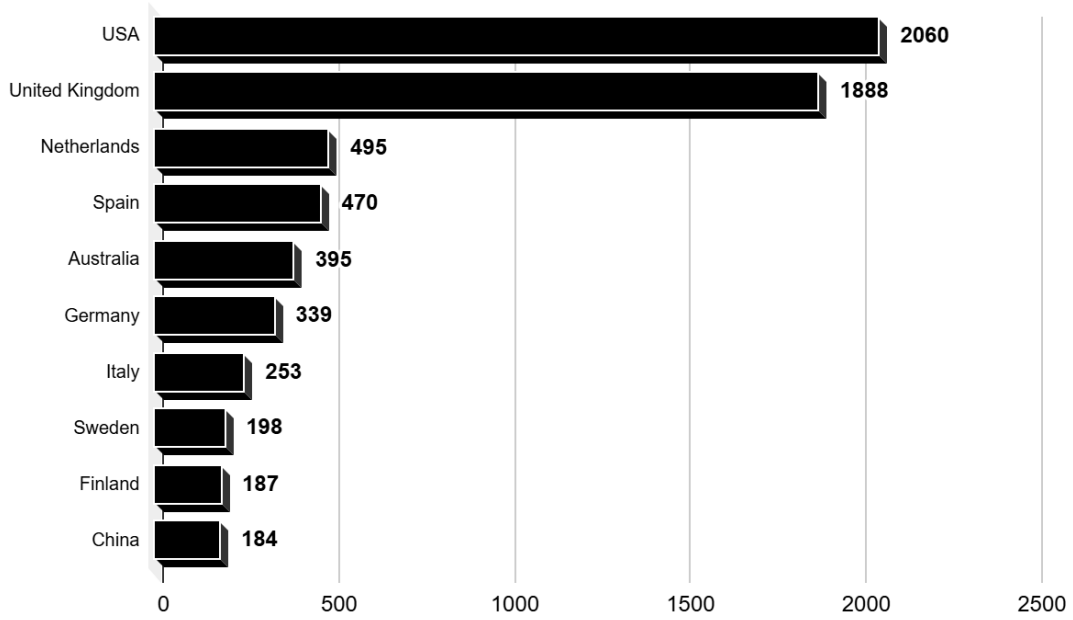

Figure 6: Most influential countries and their respective total number of citations.

Finally, Figure 7 shows four major thematic clusters. The red cluster emphasizes foundational literacy skills, including reading, vocabulary, phonological awareness, and spelling. The blue cluster highlights school-related terms, including learning, dyslexia, reading comprehension, and self-esteem. The green cluster relates to speech disorders, communication, and social interaction, while the yellow cluster emphasizes writing, decoding, and self-efficacy. In addition to literacy challenges, these clusters indicate that research encompasses affective, communicative, and developmental dimensions.

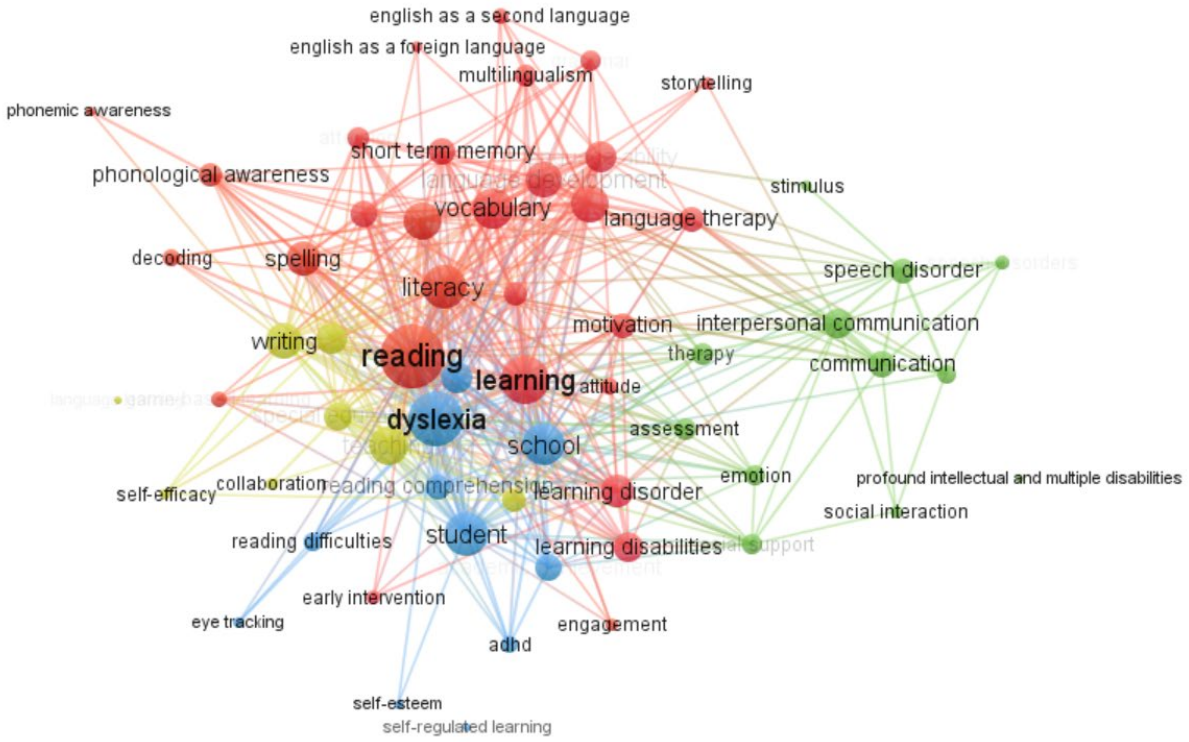

Figure 7: Network visualization of authors' keywords.

In a nutshell, the findings shed light on significant tendencies in research productivity, publication outlets, contributing authors and institutions, national and regional involvement, influence of citation impact, and clusters of related themes. In line with the objective of the study, these results provide a thorough analysis of 'the state of the art' regarding previous relevant studies on English literacy difficulties and primary students with dyslexia. For a more in-depth exploration, the following section examines the implications of these findings, situates them within a broader research context, and highlights the benefits and shortcomings of each dimension to inform future progress.

Discussion

The findings of the bibliometric analysis reveal both benefits and shortcomings across the dimensions of studies on English literacy difficulties among dyslexic primary students between 2020 and 2025. During that period, 1492 papers were published, but there was an unfortunately 24.61% decrease in yearly output.

As confirmed by several relevant studies, this decrease is a manifestation of diminished funding (Henry et al., 2018; Hottenrott & Lawson, 2017; Whitley et al., 2018), evolved demands (Cortés & Ramírez Cajiao, 2024; Whitley et al., 2018; Zhang et al., 2020), and declining academic interest (Huang, 2019; Whitley, 2014). Surprisingly, significant author involvement and extensive reference indicate ongoing scientific engagement, although international collaboration remains limited (Han, 2025; Whitley et al., 2018).

In the case of publication outlets, the interdisciplinary nature of the field is reflected in the journal analysis, which confirms the field's broad academic connections by highlighting key outlets that bridge education, psychology, and communication sciences (Journal of Applied

Research in Intellectual Disabilities, Frontiers in Education, Sustainability) (Kaldas et al., 2020; Rawat, 2014). Similarly, authorship patterns reveal a stable group of contributors, such as Sharon Vaughn and Philip Capin, who sustain the literature through collaborative networks and research leadership (Abbasi & Kenneth Chung, 2013; Bindu et al., 2019; McGowan et al., 2020; Mogaji, 2024; Mullen et al., 2013; Stenberg & Beare, 2024). This pattern underscores the importance of research collaboration and consistent scholarly productivity for advancing educational science, as supported by previous studies (Abramo et al., 2016; de Frutos-Belizón et al., 2024; Heiser, 2023).

At the institutional level, dominance by Western universities such as California, Cambridge, and Amsterdam reflects broader patterns of academic productivity and impact (Garner et al., 2018; Ma & Ladisch, 2016). The contribution of institutions like the University of Calabar signals emerging representation from Africa, though overall disparities persist. Geographically, Western dominance is reinforced, with the USA and UK leading in both productivity and citations, echoing earlier observations of limited representation from non-Western regions (Aldakhil, 2024; Han, 2025; Wu et al., 2022).

Regional gaps in Central Africa, Central Asia, and the Middle East are likely linked to funding and infrastructural barriers (Hottenrott & Lawson, 2017; I Narayan et al., 2021; Janodia et al., 2021; Narayan et al., 2023; Shehatta & Al-Rubaish, 2019). Citation analysis further confirms Western influence, with the USA, UK, and Netherlands producing the greatest impact (Abramo et al., 2016; Maral, 2024; Shehatta & Al-Rubaish, 2019).

Thematic clusters demonstrate that research goes beyond phonological and literacy skills, traditionally emphasized as the core deficits of dyslexia (Faísca et al., 2023; Georgitsi et al., 2021; Peterson, 2014; Prabhu et al., 2024), to include emotional, communicative, and developmental dimensions. This aligns with evidence showing that dyslexia is a multifactorial condition involving both phonological and non-phonological deficits (Dimililer & Istek, 2018; Menghini et al., 2010; Sadeghi et al., 2024; Vender, 2017; Zygouris et al., 2018). Interventions focusing on phonological awareness, memory, and comprehension have proven effective (Harrar-Eskinazi et al., 2022; Layes et al., 2022; Zygouris et al., 2018), confirming earlier evidence of the success of structured literacy programs in improving reading outcomes among dyslexic learners.

Regardless, emotional issues, including anxiety, depression, and low self-esteem, are still present as barriers, specifically stipulated in existing research on the psychosocial impact of dyslexia (Alexander-Passe, 2009; Alexander-Passe, 2008; Ihbour et al., 2021; Sadeghi et al., 2024; Yildiz et al., 2012). To address emotional issues effectively, holistic intervention frameworks should encompass cognitive, language demands, emotional well-being, and social inclusion, as these aspects are interconnected and crucial (Leslie, 2025a, 2025b; Poullet & Wendland, 2021).

In contrast, parental involvement consistently strengthens resilience and academic adjustment (Leslie, 2025a; Poullet & Wendland, 2021), while social interaction with teachers and peers can either exacerbate or mitigate these difficulties in self-esteem (Yildiz et al., 2012). For long-term effectiveness, early identification of issues and the provision of personalized interventions are essential (Harrar-Eskinazi et al., 2022; Jincy & Hency Jose, 2021; Menghini et al., 2010; van der Leij et al., 2013; Vender, 2017).

Overall, even though the field is academically active and rich in thematic content, it continues to struggle with issues such as declining growth, regional disparities, and limited inclusivity. It is imperative to address these gaps by promoting effective interventions and ensuring equitable support for dyslexic primary students, particularly in multilingual contexts where additional language acquisition presents compounded challenges, through enhanced international collaboration, broader representation, and integrated approaches that combine cognitive,

emotional, and developmental perspectives (Dimililer & Istek, 2018; Mayorova & Sinitsyna, 2018).

By incorporating these bibliometric insights alongside pedagogical and policy perspectives, a more transparent link can be established between research findings and classroom practice. The need for capacity-building initiatives and funding strategies that encourage equitable participation from underrepresented regions is underscored by the observed concentration of scholarship in the Western context and limited international collaboration. By aligning bibliometric trends with inclusive education frameworks, this study highlights practical pathways for developing early identification systems, teacher training modules, and evidence-based literacy interventions that are both contextually adaptable and globally informed.

Conclusion and Implications

This study used bibliometric analysis to map and assess the research landscape surrounding English literacy challenges and intervention strategies for primary school students with dyslexia. Drawing from the Scopus database and employing tools such as Biblioshiny and VOSviewer, the analysis captured key trends in publication output, identified leading contributors, including top authors, journals, institutions, and countries, and uncovered major thematic clusters from 2020 to 2025.

Although publication volume has declined over time, the field remains vibrant, with notable collaboration among researchers and strong institutional involvement. Thematic analysis revealed that current research goes beyond just cognitive and academic concerns, such as reading, phonological awareness, and spelling, and increasingly addresses the emotional, communicative, and developmental needs of primary students with dyslexia. The dominance of Western countries in both research output and citations underscores the need for more inclusive global collaboration, especially involving underrepresented regions.

Overall, the findings reinforce the complex and multifaceted nature of dyslexia and the critical importance of early, tailored interventions. Looking ahead, future research should adopt innovative, inclusive, and interdisciplinary approaches, not only to better support students with dyslexia but also to bridge geographic gaps in research participation and knowledge production.

Acknowledgements

The first author gratefully acknowledges the Center for Higher Education Funding and Assessment (PPAPT/ Pusat Pembiayaan dan Asesmen Pendidikan Tinggi) and the Indonesian Endowment Fund for Education (LPDP/ Lembaga Pengelola Dana Pendidikan) for their financial support through the Indonesian Education Scholarship (BPI/ Beasiswa Pendidikan Indonesia) program (Contract No. 02477/BPPT/BPI.06/9/2023).

Author Bios

Sri Wahyuni is an assistant professor in the Department of English Language Education at Universitas Islam Riau, Indonesia. She is currently pursuing her doctoral degree in the Study Program of Language Education Science, Faculty of Languages, Arts, and Culture, Universitas Negeri Yogyakarta, Indonesia. Her research interests include technology-enhanced English language teaching, academic writing instruction, and digital literacy.

Febrina Dafit is a lecturer and researcher in the Department of Primary School Teacher Education at Universitas Islam Riau, Indonesia. Her research interests include inclusive education, particularly the development of effective literacy instruction for diverse learners in primary schools.

Asnawi Asnawi is an associate professor in the Department of Indonesian Language and Literature Education at Universitas Islam Riau, Indonesia. His research focuses on advancing literacy, language pedagogy, and culturally responsive teaching practices, particularly in multilingual and inclusive classrooms.

Fauzul Etfita is a lecturer and researcher in the Department of English Language Education at Universitas Islam Riau, Indonesia. Her research interests include language assessment, digital pedagogy, and inclusive English language teaching.

References

Abbasi, A., & Kenneth Chung, K. S. (2013). Collaborative innovative networks: Influence and performance. *Proceedings of ISSI 2013 - 14th International Society of Scientometrics and Informetrics Conference*, *1*, 328 – 338. https://www.scopus.com/inward/record.uri?eid=2-s2.0-84896861018&partnerID=40&md5=80ef1eb1a3961afb0180627fc2b991f3

Abramo, G., D'Angelo, C. A., & Di Costa, F. (2016). The effect of a country's name in the title of a publication on its visibility and citability. *Scientometrics*, *109*(3), 1895–1909. https://doi.org/10.1007/s11192-016-2120-1

Al Husaeni, D. F., & Nandiyanto, A. B. D. (2021). Bibliometric using Vosviewer with Publish or Perish (using Google Scholar data): From step-by-step processing for users to the practical examples in the analysis of digital learning articles in pre and post covid-19 pandemic. *ASEAN Journal of Science and Engineering*, *2*(1), 19–46. https://doi.org/10.17509/ajse.v2i1.37368

Aldakhil, A. F. (2024). Prevalence of developmental dyslexia among primary school children in Arab countries: a systematic review and meta-analysis. *Research in Developmental Disabilities*, *152*, 104812. https://doi.org/10.1016/j.ridd.2024.104812

Alexander-Passe, N. (2009). How dyslexic teenagers cope at school: Could a new measure be helpful in screening those in difficulty? In *Educational Psychology: Cognition and Learning, Individual Differences and Motivation*. Nova Science Publishers, Inc. https://www.scopus.com/inward/record.uri?eid=2-s2.0-84892111450&partnerID=40&md5=e86beadfe057e5bd9456e11523e11ac0

Alexander-Passe, N. (2008). The sources and manifestations of stress amongst school-aged dyslexics, compared with sibling controls. *Dyslexia*, *14*(4), 291–313. https://doi.org/10.1002/dys.351

Ali, S. A., Nisar, H., Aziz, N. A. A., Fadzil, N. A., Zaber, N. S. M., & Ismail, L. I. (2025). Understanding dyslexia and the potential of artificial intelligence in detecting neurocognitive impairment in dyslexia. In *Artificial Intelligence and Multimodal Signal Processing in Human-Machine Interaction* (pp. 151–170). Elsevier. https://doi.org/10.1016/B978-0-443-29150-0.00017-2

Alqahtani, S. S. (2024). A meta-analysis of technology-based interventions for elementary students with reading difficulties. *Humanities and Social Sciences Communications*, *11*(1), 1629.

https://doi.org/10.1057/s41599-024-04159-y

Anderson, R. (2009). 'They're telling me what I already know instead of what I don't know': Dyslexic pupils' experiences of withdrawal tuition during the later primary years. *Support for Learning*, *24*(2), 55–61. https://doi.org/10.1111/j.1467-9604.2009.01400.x

Aria, M., & Cuccurullo, C. (2017). Bibliometrix : An R-tool for comprehensive science mapping analysis. *Journal of Informetrics*, *11*(4), 959–975. https://doi.org/10.1016/j.joi.2017.08.007

Baas, J., Schotten, M., Plume, A., Côté, G., & Karimi, R. (2020). Scopus as a curated, high-quality bibliometric data source for academic research in quantitative science studies. *Quantitative Science Studies*, *1*(1), 377–386. https://doi.org/10.1162/qss_a_00019

Barbosa, T., Rodrigues, C. C., Mello, C. B. de, Silva, M. C. de S. e, & Bueno, O. F. A. (2019). Executive functions in children with dyslexia. *Arquivos de Neuro-Psiquiatria*, *77*(4), 254–259. https://doi.org/10.1590/0004-282x20190033

Bigozzi, L., Vettori, G., & Incognito, O. (2023). The role of preschoolers' home literacy environment and emergent literacy skills on later reading and writing skills in primary school: A mediational model. *Frontiers in Psychology*, *14*. https://doi.org/10.3389/fpsyg.2023.1113822

Bindu, N., Sankar, C. P., & Kumar, K. S. (2019). Research collaboration and knowledge sharing in e-governance. *Transforming Government: People, Process and Policy*, *13*(1), 2–33. https://doi.org/10.1108/TG-03-2018-0022

Chalmpe, M., & Vlachos, F. (2025). Are there distinct subtypes of developmental dyslexia? *Frontiers in Behavioral Neuroscience*, *18*. https://doi.org/10.3389/fnbeh.2024.1512892

Chan, D. W., Suk-Han Ho, C., Tsang, S., Lee, S., & Chung, K. K. H. (2004). Screening for Chinese children with dyslexia in Hong Kong: The use of the teachers' behaviour checklist. *Educational Psychology*, *24*(6), 811–824. https://doi.org/10.1080/0144341042000271769

Cortés, J. D., & Ramírez Cajiao, M. C. (2024). The policy is dead, long live the policy—Revealing science, technology, and innovation policy priorities and government transitions via network analysis. *Quantitative Science Studies*, *5*(2), 317–331. https://doi.org/10.1162/qss_a_00295

de Frutos-Belizón, J., García-Carbonell, N., Guerrero-Alba, F., & Sánchez-Gardey, G. (2024). An empirical analysis of individual and collective determinants of international research collaboration. *Scientometrics*, *129*(5), 2749–2770. https://doi.org/10.1007/s11192-024-04999-0

Dimililer, C., & Istek, E. (2018). Experiences of a dyslexic child in an English as a foreign language class. *Quality & Quantity*, *52*(S2), 1391–1398. https://doi.org/10.1007/s11135-018-0730-9

Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research*, *133*, 285–296. https://doi.org/10.1016/j.jbusres.2021.04.070

Faísca, L., Reis, A., & Araújo, S. (2023). Cognitive subtyping of university students with dyslexia in a semi-transparent orthography: what can weaknesses and strengths tell us about compensation? *Journal of Cultural Cognitive Science*, *7*(2), 121–136. https://doi.org/10.1007/s41809-023-00124-4

Fusco, N., Germano, G. D., & Capellini, S. A. (2015). Efficacy of a perceptual and visual-motor skill intervention program for students with dyslexia. *CoDAS*, *27*(2), 128–134. https://doi.org/10.1590/2317-1782/20152014013

Garner, R. M., Hirsch, J. A., Albuquerque, F. C., & Fargen, K. M. (2018). Bibliometric indices:

Defining academic productivity and citation rates of researchers, departments and journals. *Journal of NeuroInterventional Surgery*, *10*(2), 102–106. https://doi.org/10.1136/neurintsurg-2017-013265

Georgitsi, M., Dermitzakis, I., Soumelidou, E., & Bonti, E. (2021). The polygenic nature and complex genetic architecture of specific learning disorder. *Brain Sciences*, *11*(5), 631. https://doi.org/10.3390/brainsci11050631

Gomes, T., Hosanee, Y., Panchoo, S., & Dhuny, M. (2016). Teaching English literacy to standard one students: Requirements determination for remediation through ICT. *2016 IEEE International Conference on Emerging Technologies and Innovative Business Practices for the Transformation of Societies (EmergiTech)*, 222–228. https://doi.org/10.1109/EmergiTech.2016.7737343

Hall, C., Dahl-Leonard, K., Cho, E., Solari, E. J., Capin, P., Conner, C. L., Henry, A. R., Cook, L., Hayes, L., Vargas, I., Richmond, C. L., & Kehoe, K. F. (2023). Forty years of reading intervention research for elementary students with or at risk for dyslexia: A systematic review and meta-analysis. *Reading Research Quarterly*, *58*(2), 285–312. https://doi.org/10.1002/rrq.477

Han, W. (2025). Dyscalculia and dyslexia in school-aged children: comorbidity, support, and future prospects. *Frontiers in Education*, *10*. https://doi.org/10.3389/feduc.2025.1515216

Handler, S. M., & Fierson, W. M. (2011). Learning disabilities, dyslexia, and vision. *Pediatrics*, *127*(3), e818–e856. https://doi.org/10.1542/peds.2010-3670

Harrar-Eskinazi, K. L., De Cara, B., Leloup, G., Nothelier, J., Caci, H., Ziegler, J. C., & Faure, S. (2022). Multimodal intervention in 8- to 13-year-old French dyslexic readers: Study protocol for a randomized multicenter controlled crossover trial. *BMC Pediatrics*, *22*(1), 741. https://doi.org/10.1186/s12887-022-03701-8

Heiser, R. E. (2023). The emergence of the open research university through international research collaboration. *The International Review of Research in Open and Distributed Learning*, *24*(3), 99–124. https://doi.org/10.19173/irrodl.v24i3.7328

Henry, C., Azura Md Ghani, N., Haron, H., Marshida Abd Hamid, U., Naqiyuddin Bakar, A., & Taufek Abdul Rahman, A. (2018). The nexus between funding and research output: A case study in Universiti Teknologi MARA. *International Journal of Engineering & Technology*, *7*(3.15), 187. https://doi.org/10.14419/ijet.v7i3.15.17527

Hong, Q. N., & Pluye, P. (2018). Systematic reviews: A brief historical overview. *Education for Information*, *34*(4), 261–276. https://doi.org/10.3233/EFI-180219

Hottenrott, H., & Lawson, C. (2017). Fishing for complementarities: Research grants and research productivity. *International Journal of Industrial Organization*, *51*, 1–38. https://doi.org/10.1016/j.ijindorg.2016.12.004

Huang, D. (2019). Fluctuation and evolution of research topics. *Journal of Physics: Conference Series*, *1391*(1), 012098. https://doi.org/10.1088/1742-6596/1391/1/012098

I Narayan, A., Chogtu, B., Janodia, M., & Venkata, S. K. (2021). A bibliometric study on the research outcome of Brazil, Russia, India, China, and South Africa. *F1000Research*, *10*, 213. https://doi.org/10.12688/f1000research.51337.1

Ihbour, S., Anarghou, H., Boulhana, A., Najimi, M., & Chigr, F. (2021). Mental health among students with neurodevelopment disorders: Case of dyslexic children and adolescents. *Dementia & Neuropsychologia*, *15*(4), 533–540. https://doi.org/10.1590/1980-57642021dn15-040014

Isa, I. S., Syazwani Rahimi, W. N., Ramlan, S. A., & Sulaiman, S. N. (2019). Automated detection of dyslexia symptom based on handwriting image for primary school children. *Procedia Computer Science*, *163*, 440–449. https://doi.org/10.1016/j.procs.2019.12.127

Janaarthanan, P. I., & Nithyanandam, K. (2020). Mapping of research output on dyslexia: A scientometric study during 2015-2019. *Library Philosophy and Practice*, *2020*, 1 – 10. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85098219237&partnerID=40&md5=7d0900ff5b1e0e015ff6d6a343652087

Janodia, M., Narayan, A. I., Venkata, S. K., & Chogtu, B. (2021). Publication analysis in Bay for Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation Nations. *F1000Research*, *10*, 510. https://doi.org/10.12688/f1000research.52286.1

Jincy, J., & Hency Jose, P. S. (2021). Survey on intervention & diagnosis of dyslexia. *2021 International Conference on Advances in Electrical, Computing, Communication and Sustainable Technologies (ICAECT)*, 1–5. https://doi.org/10.1109/ICAECT49130.2021.9392606

Kaldas, M., Michael, S., Hanna, J., & Yousef, G. M. (2020). Journal impact factor: A bumpy ride in an open space. *Journal of Investigative Medicine*, *68*(1), 83–87. https://doi.org/10.1136/jim-2019-001009

Kamal, E. M. (2020). Phonological errors in English among dyslexic learners in selected primary schools in Penang: phoneme, syllable and word levels. *Pertanika Journal of Social Sciences and Humanities*, *28*(SUPPL.2), 157 – 175. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85091267347&partnerID=40&md5=b441f7e6751b896fc8d7b4e4626326eb

Kennedy, C., & McLoughlin, A. (2023). Developing the emergent literacy skills of English language learners through dialogic reading: A systematic review. *Early Childhood Education Journal*, *51*(2), 317–332. https://doi.org/10.1007/s10643-021-01291-1

Lawton, T. (2016). Improving dorsal stream function in dyslexics by training figure/ground motion discrimination improves attention, reading fluency, and working memory. *Frontiers in Human Neuroscience*, *10*. https://doi.org/10.3389/fnhum.2016.00397

Layes, S., Guendouz, M., Lalonde, R., & Rebai, M. (2022). Combined phonological awareness and print knowledge training improves reading accuracy and comprehension in children with reading disabilities. *International Journal of Disability, Development and Education*, *69*(4), 1185–1199. https://doi.org/10.1080/1034912X.2020.1779914

Lee, H. R., & Kim, J. (2025). The effect of a multisensory approach-based phonological process intervention on the reading skills of elementary students with reading difficulties in childcare facilities. *Communication Sciences & Disorders*, *30*(1), 60–75. https://doi.org/10.12963/csd.250091

Lee, R., & Ha, S. (2025). Phonological processing ability of children with speech sound disorders and developmental dyslexia in early elementary school years. *Communication Sciences & Disorders*, *30*(1), 76–86. https://doi.org/10.12963/csd.250104

Leslie, R. (2025a). It broke my heart': An investigation of ableist microaggressions towards mothers of Australian dyslexic children in primary school. *Disability & Society*, 1–24. https://doi.org/10.1080/09687599.2025.2450533

Leslie, R. (2025b). 'Oh, what does dyslexia do?': A qualitative investigation of ableist microaggressions towards Australian dyslexic children in primary school. *Disability & Society*, 1–26. https://doi.org/10.1080/09687599.2025.2455556

Łodygowska, E., & Czepita, D. A. (2012). School phobia in children with dyslexia. *Annales Academiae Medicae Stetinensis*, *58*(1), 66 – 70.

Lotka, A. J. (1926). The frequency distribution of scientific productivity. *Journal of the Washington Academy of Sciences*, *16*(12), 317–323. http://www.jstor.org/stable/24529203

Ma, L., & Ladisch, M. (2016). Scholarly communication and practices in the world of metrics: An exploratory study. *Proceedings of the Association for Information Science and Technology*, *53*(1), 1–4. https://doi.org/10.1002/pra2.2016.14505301132

Maral, M. (2024). Research performance of higher education in OECD countries: A hybrid multi-criteria decision-making approach. *Sage Open*, *14*(2). https://doi.org/10.1177/21582440241257753

Mayorova, A. S., & Sinitsyna, Y. N. (2018). Features of teaching English phonetics to children with dysgraphia and dyslexia. *Perspektivy Nauki i Obrazovania*, *33*(3), 322 – 326. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85059579042&partnerID=40&md5=0ff9fa2803a9c4891ddd75c99193b85e

Mayr, P., Frommholz, I., Cabanac, G., Chandrasekaran, M. K., Jaidka, K., Kan, M. Y., & Wolfram, D. (2018). Introduction to the special issue on bibliometric-enhanced information retrieval and natural language processing for digital libraries (BIRNDL). *International Journal on Digital Libraries*, *19*(2–3), 107–111. https://doi.org/10.1007/s00799-017-0230-x

Mazaheri, S., Soleymani, Z., Hudson, R., & Talebian, S. (2024). Comparing the effectiveness of two kinds of reading interventions on reading outcomes in third to fifth grade Farsi speaker students with dyslexia: An exploratory study. *Medical Journal of The Islamic Republic of Iran*. https://doi.org/10.47176/mjiri.38.77

McGowan, L., Philp, A., & Jeffery, E. (2020). Creating collaborative capacity in early career research writers. *TEXT*, *24*(Special 59). https://doi.org/10.52086/001c.23460

Medina, G. B. K., & Guimarães, S. R. K. (2021). Reading in developmental dyslexia: The role of phonemic awareness and executive functions. *Estudos de Psicologia (Campinas)*, *38*. https://doi.org/10.1590/1982-0275202138e180178

Menghini, D., Finzi, A., Benassi, M., Bolzani, R., Facoetti, A., Giovagnoli, S., Ruffino, M., & Vicari, S. (2010). Different underlying neurocognitive deficits in developmental dyslexia: A comparative study. *Neuropsychologia*, *48*(4), 863–872. https://doi.org/10.1016/j.neuropsychologia.2009.11.003

Mogaji, E. (2024). Viewpoint: The evolving landscape of peer review. *Journal of Services Marketing*, *38*(5), 522–529. https://doi.org/10.1108/JSM-09-2023-0325

Mullen, C. A., Pryor, C. R., Browne-Ferrigno, T., & Harris, S. L. (2013). An international call for democratizing the academic journal culture from a community of editors. *Interchange*, *44*(3–4), 179–201. https://doi.org/10.1007/s10780-014-9206-6

Munro, J. (2017). Who benefits from which reading intervention in the primary years? Match the intervention with the reading profile. *Australian Journal of Learning Difficulties*, *22*(2), 133–151. https://doi.org/10.1080/19404158.2017.1379027

Narayan, A., Chogtu, B., Janodia, M., Radhakrishnan, R., & Venkata, S. K. (2023). A bibliometric analysis of publication output in selected South American countries. *F1000Research*, *12*, 1239. https://doi.org/10.12688/f1000research.134574.1

Nasika, F., & Thoma, T. (2023). The human side of dyslexia: An exploration of children's self-esteem and potential interventions. In D. Katsarou (Ed.), *Childhood developmental language disorders: Role of inclusion, families, and professionals* (pp. 249–264).

https://doi.org/10.4018/979-8-3693-1982-6.ch016

Novita, S. (2016). Secondary symptoms of dyslexia: A comparison of self-esteem and anxiety profiles of children with and without dyslexia. *European Journal of Special Needs Education*, *31*(2), 279–288. https://doi.org/10.1080/08856257.2015.1125694

Omar, R., Mazuwir, M. H., & Majumder, C. (2023). Sustainability of the effect of optical intervention on the reading performance of children with dyslexia. *Medical Hypothesis Discovery and Innovation in Ophthalmology*, *11*(4), 179–188. https://doi.org/10.51329/mehdiophthal1462

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., … Moher, D. (2021). The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ*, *372*. https://doi.org/10.1136/bmj.n71

Peixoto, V., Alegria, R., & Pestana, P. (2023). Early literacy intervention program: Closing the linguistic gap of socially disadvantaged children. In F. Nyemba and R. Chityo (Eds.), *Closing the Educational Achievement Gap for Students With Learning Disabilities* (pp. 163–212). https://doi.org/10.4018/978-1-6684-8737-2.ch009

Peters, J. L., De Losa, L., Bavin, E. L., & Crewther, S. G. (2019). Efficacy of dynamic visuo-attentional interventions for reading in dyslexic and neurotypical children: A systematic review. *Neuroscience & Biobehavioral Reviews*, *100*, 58–76. https://doi.org/10.1016/j.neubiorev.2019.02.015

Peterson, R. L. (2014). Dyslexia, developmental. In *Encyclopedia of the Neurological Sciences* (pp. 1050–1051). Elsevier. https://doi.org/10.1016/B978-0-12-385157-4.00434-6

Poullet, E., & Wendland, J. (2021). Being the parent of a dyslexic child: Parental stress and parent-child relationship. *Neuropsychiatrie de l'Enfance et de l'Adolescence*, *69*(4), 169–175. https://doi.org/10.1016/j.neurenf.2021.04.004

Prabhu, S., Subban, V., Bhat, J. S., & Somashekara, H. S. (2024). Development and validation of phonological processing assessment tool in Kannada language. *Theory and Practice in Language Studies*, *14*(7), 2161–2172. https://doi.org/10.17507/tpls.1407.24

Pranckutė, R. (2021). Web of Science (WoS) and Scopus: The titans of bibliographic information in today's academic world. *Publications*, *9*(1). https://doi.org/10.3390/publications9010012

Price, D. J. D. S. (1963). *Little science, big science*. Columbia University Press. https://doi.org/doi:10.7312/pric91844

Rawat, S. (2014). How is impact factor impacting our research? *Biomedical Journal*, *37*(6), 415. https://doi.org/10.4103/2319-4170.131388

Ring, J., & Black, J. L. (2018). The multiple deficit model of dyslexia: What does it mean for identification and intervention? *Annals of Dyslexia*, *68*(2), 104–125. https://doi.org/10.1007/s11881-018-0157-y

Rogers, G., Szomszor, M., & Adams, J. (2020). Sample size in bibliometric analysis. *Scientometrics*, *125*(1), 777–794. https://doi.org/10.1007/s11192-020-03647-7

Sadeghi, A., Niyazi, M. P., Tadi, P., & Rakhshanfadaee, A. (2024). Dyslexia in Persian. In *Dyslexia in Many Languages* (pp. 144–159). Routledge. https://doi.org/10.4324/9781003408277-12

Sharma, P., & Sagar, R. (2017). Unfolding the genetic pathways of dyslexia in Asian population: A review. *Asian Journal of Psychiatry*, *30*, 225–229.

https://doi.org/10.1016/j.ajp.2017.06.006

Shehatta, I., & Al-Rubaish, A. M. (2019). Impact of country self-citations on bibliometric indicators and ranking of most productive countries. *Scientometrics*, *120*(2), 775–791. https://doi.org/10.1007/s11192-019-03139-3

Snowling, M. J. (2000). *Dyslexia* (2nd ed.). Oxford: Blackwell.

Soegoto, H., Soegoto, E. S., Luckyardi, S., & Rafdhi, A. A. (2021). A bibliometric analysis of management bioenergy research using Vosviewer application. *Indonesian Journal of Science and Technology*, *7*(1), 89–104. https://doi.org/10.17509/ijost.v7i1.43328

Soriano-Ferrer, M., Casino García, A. M., Llinares-Insa, L. I., & Morte-Soriano, M. R. (2025). A multicomponential dyslexia intervention program. *Medicina (Buenos Aires)*, *85*, 76 – 81. https://www.scopus.com/inward/record.uri?eid=2-s2.0-86000103064&partnerID=40&md5=888ecc309d79804832c1a10ad736e255

Stenberg, S. J., & Beare, Z. C. (2024). Acts of recognition: A study of faculty writers' experiences of engaging peer review. *College Composition & Communication*, *75*(4), 620–646. https://doi.org/10.58680/ccc2024754620

Sun, Z., Zou, L., Zhang, J., Mo, S., Shao, S., Zhong, R., Ke, J., Lu, X., Miao, X., & Song, R. (2013). Prevalence and associated risk factors of dyslexic children in a middle-sized city of China: A cross-sectional study. *PLoS ONE*, *8*(2), e56688. https://doi.org/10.1371/journal.pone.0056688

Suryantoro, E., Udin, U., & Ika Nurul Qamari. (2023). Bibliometric analysis of information systems in infection prevention and control. *Multidisciplinary Reviews*, *6*(1), 2023006. https://doi.org/10.31893/multirev.2023006

Tambyraja, S. R., Farquharson, K., & Justice, L. M. (2023). Phonological processing skills in children with speech sound disorder: A multiple case study approach. *International Journal of Language & Communication Disorders*, *58*(1), 15–27. https://doi.org/10.1111/1460-6984.12764

Thurmann-Moe, A. C., Melby-Lervåg, M., & Lervåg, A. (2021). The impact of articulatory consciousness training on reading and spelling literacy in students with severe dyslexia: an experimental single case study. *Annals of Dyslexia*, *71*(3), 373–398. https://doi.org/10.1007/s11881-021-00225-1

Toffalini, E., Giofrè, D., Pastore, M., Carretti, B., Fraccadori, F., & Szűcs, D. (2021). Dyslexia treatment studies: A systematic review and suggestions on testing treatment efficacy with small effects and small samples. *Behavior Research Methods*, *53*(5), 1954–1972. https://doi.org/10.3758/s13428-021-01549-x

Tsagari, D., & Sperling, I. (2017). Assessing SLLs with SpLDs: Challenges and opportunities for equity in education. In E. Piechurska-Kuciel, E. Szymanska-Czaplak, & M. Szyszka (Eds), (Eds.), *Second Language Learning and Teaching* (pp. 175–188). https://doi.org/10.1007/978-3-319-55155-5_10

van der Leij, A., van Bergen, E., van Zuijen, T., de Jong, P., Maurits, N., & Maassen, B. (2013). Precursors of developmental dyslexia: An overview of the longitudinal Dutch dyslexia programme study. *Dyslexia*, *19*(4), 191–213. https://doi.org/10.1002/dys.1463

Van Herck, S., Vanden Bempt, F., Economou, M., Vanderauwera, J., Glatz, T., Dieudonné, B., Vandermosten, M., Ghesquière, P., & Wouters, J. (2022). Ahead of maturation: Enhanced speech envelope training boosts rise time discrimination in pre-readers at cognitive risk for dyslexia. *Developmental Science*, *25*(3). https://doi.org/10.1111/desc.13186

Van Setten, E. R. H., Hakvoort, B. E., Van der Leij, A., & Maassen, B. A. M. (2021). An integrated analysis of the developmental outcomes of children with a familial risk of dyslexia in Group 8. *Stem-, Spraak- En Taalpathologie*, *26*. https://doi.org/10.21827/32.8310/2021-16

Vender, M. (2017). *Disentangling dyslexia*. Peter Lang CH. https://doi.org/10.3726/b11503

Vizhi, P. K., & Rathnasabapathy, M. (2023). Language learning difficulties of students with Dyslexia: A case study at a primary school. *Theory and Practice in Language Studies*, *13*(11), 2734–2742. https://doi.org/10.17507/tpls.1311.02

Wahyuni, S., Putro, N. H. P. S., & Efendi, A. (2024). Trends in artificial intelligence-infused English language learning: A comprehensive bibliometric and content review. *Advanced Education*, *12*(25), 162–178. https://doi.org/10.20535/2410-8286.315035

Wang, L.-C., Chen, J.-K., & Poon, K. (2023). Relationships between state anxiety and reading comprehension of Chinese students with and without Dyslexia: A cross-sectional design. *Learning Disability Quarterly*, *46*(4), 247–260. https://doi.org/10.1177/07319487221149413

Whitley, R. (2014). How do institutional changes affect scientific innovations? the effects of shifts in authority relationships, protected space, and flexibility. *Research in the Sociology of Organizations, 42,* 367–406. https://doi.org/10.1108/S0733-558X20140000042012

Whitley, R., Gläser, J., & Laudel, G. (2018). The impact of changing funding and authority relationships on scientific innovations. *Minerva*, *56*(1), 109–134. https://doi.org/10.1007/s11024-018-9343-7

Wise, N., D'Angelo, N., & Chen, X. (2016). A school-based phonological awareness intervention for struggling readers in early French immersion. *Reading and Writing*, *29*(2), 183–205. https://doi.org/10.1007/s11145-015-9585-9

Wolf, M., & Bowers, P. G. (1999). The double-deficit hypothesis for the developmental dyslexias. *Journal of Educational Psychology*, *91*(3), 415–438. https://doi.org/10.1037/0022-0663.91.3.415

Wu, Y., Cheng, Y., Yang, X., Yu, W., & Wan, Y. (2022). Dyslexia: A bibliometric and visualization analysis. *Frontiers in Public Health*, *10*. https://doi.org/10.3389/fpubh.2022.915053

Xiao, P., Zhu, K., Feng, Y., Jiang, Q., Xiang, Z., Zhang, Q., Wu, X., Fan, Y., Zou, L., Xiao, H., & Song, R. (2023). Associations between dyslexia and children's mental health: Findings from a follow-up study in China. *Psychiatry Research*, *324*, 115188. https://doi.org/10.1016/j.psychres.2023.115188

Xiao, P., Zhu, K., Liu, Q., Xie, X., Jiang, Q., Feng, Y., Wu, X., Tang, J., & Song, R. (2022). Association between developmental dyslexia and anxiety/depressive symptoms among children in China: The chain mediating of time spent on homework and stress. *Journal of Affective Disorders*, *297*, 495–501. https://doi.org/10.1016/j.jad.2021.10.120

Yang, L., Li, C., Li, X., Zhai, M., An, Q., Zhang, Y., Zhao, J., & Weng, X. (2022). Prevalence of developmental dyslexia in primary school children: A systematic review and meta-analysis. *Brain Sciences*, *12*(2), 240. https://doi.org/10.3390/brainsci12020240

Yildiz, M., Yildirim, K., Ates, S., & Rasinski, T. (2012). Perceptions of Turkish parents with children identified as dyslexic about the problems that they and their children experience. *Reading Psychology*, *33*(5), 399–422. https://doi.org/10.1080/02702711.2010.515907

Zhang, L., Zhao, W., Liu, J., Sivertsen, G., & Huang, Y. (2020). Do national funding organizations properly address the diseases with the highest burden?: Observations from China and the UK. *Scientometrics*, *125*(2), 1733–1761. https://doi.org/10.1007/s11192-020-03572-9

Zhang, S., Fan, H., & Zhang, Y. (2021). The 100 top-cited studies on dyslexia research: A bibliometric analysis. *Frontiers in Psychiatry*, *12*. https://doi.org/10.3389/fpsyt.2021.714627

Zupic, I., & Čater, T. (2015). Bibliometric methods in management and organization. *Organizational Research Methods*, *18*(3), 429–472. https://doi.org/10.1177/1094428114562629

Zuppardo, L., Rodríguez Fuentes, A., Pirrone, C., & Serrano, F. (2020). Dyslexia impact on self-esteem, socioemotional behavior, and anxiety during the schooling period. *Psicología Educativa*, *26*(2), 175–183. https://doi.org/10.5093/psed2020a4

Zygouris, N. C., Avramidis, E., Karapetsas, A. V., & Stamoulis, G. I. (2018). Differences in dyslexic students before and after a remediation program: A clinical neuropsychological and event related potential study. *Applied Neuropsychology: Child*, *7*(3), 235–244. https://doi.org/10.1080/21622965.2017.1297710