

Global Research Trends in Dialogic Speech Development among Preschool Children with Speech Underdevelopment: A Bibliometric Analysis (2005–2025)

Akbopo Sakulova¹, Sandugash Tleubay², Akmaral Satova³ & Almagul Kalykbaeva⁴

Abstract

Dialogic speech development in preschool children with speech and language underdevelopment is a significant area of research because of its close relationship with communication, literacy, and school readiness. However, the global scientific landscape and thematic evolution of this field have not been systematically examined. This study aimed to analyze international research trends in dialogic speech development among preschool children with speech and language underdevelopment through a bibliometric analysis of publications indexed in the Scopus database between 2005 and 2025. A bibliometric research design based on a systematic literature search and selection process following the PRISMA 2020 guidelines was employed. A total of 190 English-language research articles were analyzed using VOSviewer to examine publication trends, author productivity, geographical distribution, subject areas, keyword co-occurrence, source co-citation, and international scientific collaboration. The findings indicate sustained scientific interest in dialogic speech development despite fluctuations in annual publication output. Research activity is concentrated primarily in the United States and the United Kingdom and is grounded in speech-language pathology, developmental psychology, education, linguistics, and communication sciences. Keyword co-occurrence analysis revealed three main themes: speech and language development, narrative competence and clinical intervention, and storytelling in preschool education. Source co-citation analysis further revealed that the field's intellectual structure is dominated by clinical and psycholinguistic paradigms, whereas culturally grounded narrative traditions and folklore-based educational approaches remain comparatively underrepresented. These findings provide a comprehensive overview of the field and highlight the need for future interdisciplinary research integrating narrative-based interventions with culturally responsive pedagogical practices and culturally grounded storytelling traditions, including Kazakh folk tales, within inclusive early childhood education.

Keywords: *Dialogic speech; preschool children; speech and language underdevelopment; bibliometric analysis; narrative intervention.*

¹ Ph.D. student at Abai Kazakh National Pedagogical University, Kazakhstan, sakulovaakbopo3@gmail.com

² Ph.D. at Kazakh National Women's Teacher Training University, Kazakhstan, sandugash.tleubai@mail.ru
(corresponding author)

³ Doctor of Psychological Sciences at Abai Kazakh National Pedagogical University, Kazakhstan, satova57@mail.ru

⁴ Ph.D. at Abai Kazakh National Pedagogical University, Kazakhstan, almagulkalykbaeva@yandex.ru

Introduction

The development of dialogic speech in preschool children is widely regarded as a central objective of early childhood education due to its essential role in cognitive, social, and academic development. Previous studies have demonstrated that early language competencies, particularly vocabulary acquisition and narrative skills, significantly influence children's literacy outcomes and school readiness (Noel et al., 2008; Özcan et al., 2022; Ryskulbek et al., 2025). Although dialogic speech has traditionally been examined as an individual linguistic competence, it is increasingly recognized as a socially mediated process through which children construct meaning, internalize cultural experience, and develop interpersonal interaction.

The preschool period represents a critical stage in language acquisition, during which children rapidly develop vocabulary, grammatical structures, and discourse competence. Children with speech and language underdevelopment frequently demonstrate substantial difficulties in these domains, including limited lexical resources, reduced coherence, and insufficient dialogic interaction. Previous studies indicate that children with language impairments experience persistent challenges in narrative production, particularly in organizing events coherently and expressing meaningful connections between ideas (Dadon Jorno et al., 2025; Emelyanova et al., 2018; Kılıç & Büyüktaşkapu Soydan, 2022; Peña et al., 2014). Existing research largely examines these difficulties from a clinical-linguistic perspective, while comparatively limited attention has been devoted to the sociocultural mechanisms that may facilitate dialogic speech development. These findings suggest that effective interventions should address not only children's linguistic deficits but also the communicative contexts that support language interaction.

Narrative competence is widely recognized as a fundamental component of dialogic speech development because it enables children to organize discourse coherently and participate effectively in communication. Research has shown that narrative-based assessment and intervention improve lexical diversity, discourse organization, and communicative participation, particularly among children with language impairments ((Dadon Jorno et al., 2025; Özcan et al., 2022; Peña et al., 2014). Narrative interaction, grounded in culturally familiar storytelling traditions, has been proposed as a promising approach to supporting children's communicative engagement by integrating linguistic development with meaningful social interaction.

Previous studies have demonstrated that parent–child interaction, shared reading, and storytelling practices contribute significantly to the development of children's language and communication

skills by creating opportunities for active participation, verbal scaffolding, and guided meaning-making (Melzi et al., 2011). In particular, maternal elicitation strategies and narrative interaction have been associated with increased narrative elaboration and communicative engagement in children (Melzi et al., 2011). Moreover, higher levels of communication development among preschool children are positively associated with socialization and peer acceptance (Shehu, 2019). Together, these findings highlight the importance of interactive storytelling contexts for supporting dialogic communication among preschool children.

Although narrative-based approaches have received considerable scholarly attention, culturally grounded storytelling traditions remain comparatively underrepresented in international research. Traditional narratives, particularly folk tales, provide linguistically rich environments for language acquisition through structured plots, repetitive narrative patterns, symbolic imagery, and dialogic forms of interaction. However, existing studies have primarily focused on general narrative competence and language intervention strategies. At the same time, the potential of national folklore as a culturally grounded resource for developing dialogic speech has received limited scholarly attention. In particular, the educational potential of Kazakh folk tales for supporting dialogic speech development among preschool children with General Speech Underdevelopment has received limited attention in international research.

Despite the growing number of studies on preschool language development, narrative intervention, and communicative competence, research on dialogic speech development among preschool children with speech underdevelopment remains fragmented across speech-language pathology, developmental psychology, education, linguistics, and communication sciences. Existing studies have predominantly examined clinical, linguistic, and intervention-related issues. At the same time, comparatively little attention has been devoted to the field's longitudinal development, thematic structure, international collaboration networks, and emerging research directions. To date, no comprehensive bibliometric study has systematically examined global scientific production on this subject across the 2005–2025 period.

A bibliometric design was selected because it enables the systematic examination of publication dynamics, author and country productivity, international collaboration, co-citation relationships, and changes in the conceptual structure of a multidisciplinary field. Although a conventional narrative review can synthesize findings from individual studies, it cannot quantitatively map the social, intellectual, and thematic organization of an entire research domain. By combining

performance analysis, science mapping, and period-based comparative analysis, the present study identifies the dominant structure of the field, traces changes in research priorities between 2005 and 2025, and reveals underrepresented areas, including sociocultural perspectives, culturally grounded narrative practices, and the educational potential of folk storytelling traditions.

In response to these gaps, the present study aims to conduct a bibliometric analysis of global scientific research on dialogic speech development among preschool children with speech underdevelopment published between 2005 and 2025. Particular attention is given to examining the extent to which narrative-based, sociocultural, and culturally grounded storytelling approaches are represented within the international scientific literature, including references to Kazakh folk tales.

Accordingly, the study addresses the following research questions:

- What are the main publication trends in global research on dialogic speech development among preschool children with speech underdevelopment between 2005 and 2025?
- Which countries, authors, journals, and institutions contribute most actively to this field?
- What thematic clusters and research directions dominate the scientific discourse?
- How are narrative-based and sociocultural approaches represented within the existing literature?
- To what extent are culturally grounded storytelling traditions, including folk tales, represented within the international scientific literature on dialogic speech development?

Literature Review

For conceptual clarity, the present study distinguishes among speech development, oral language, narrative skills, and dialogic speech. Speech development is used here in a narrower, production-oriented sense, referring particularly to developmental changes in the intelligibility of children's single-word and multiword spoken productions (Hustad et al., 2021). In the broader educational context of the present study, the term "speech and language development" is used to refer collectively to children's linguistic, conceptual, and communicative development (Brodin & Renblad, 2020; Xhani et al., 2024). Oral language refers to spoken comprehension and production and encompasses vocabulary, morphology, and sentence- and text-level comprehension. Narrative skills constitute a more specific discourse-level component of oral language and involve storytelling, story retelling, and the coherent organization of story content (Vandewalle et al.,

2012). For the purposes of the present study, dialogic speech is operationally defined as the reciprocal use of oral language between participants through questions, responses, and the collaborative discussion of meaning. In shared-reading contexts, dialogic reading employs elaborative questioning to engage children in oral interaction and support their narrative construction (Lever & Sénéchal, 2011). Accordingly, speech development concerns the production and intelligibility of spoken utterances, oral language represents the broader system of spoken comprehension and expression, narrative skills concern the organization of extended discourse, and dialogic speech concerns the interactive use of oral language. These terms are therefore related but are not used interchangeably in the present study.

Contemporary understanding of speech and language development is based on the integration of several theoretical perspectives that explain how children acquire communicative competence. From a socio-interactional perspective, language development is viewed as a process that emerges through interaction with the social environment, where communication plays a central role in cognitive and linguistic growth. In this context, dialogic speech is considered a key mechanism through which children construct meaning and participate in social interaction (Melzi et al., 2011). From a cognitive perspective, language development is closely related to children's ability to process, organize, and structure information. Narrative competence, which involves organizing events into coherent sequences, reflects the integration of linguistic and cognitive processes and plays a crucial role in the development of communication (Özcan et al., 2022; Peña et al., 2014). For children with speech and language underdevelopment, this process may be more complex due to limitations in vocabulary, grammar, and discourse organization.

A multimodal perspective further expands the understanding of communication by emphasizing the role of nonverbal elements, such as gesture, in supporting speech. Gesture and language form an integrated communication system in which nonverbal expression contributes to meaning-making and interaction. However, children with language impairments often demonstrate difficulties not only in speech but also in gesture accuracy, indicating broader communicative challenges (Wray et al., 2017).

Thus, contemporary theoretical perspectives highlight that the development of dialogic speech is a complex process involving the interaction of linguistic, cognitive, and social factors. These perspectives provide a foundation for understanding the specific characteristics of speech development in children with language difficulties.

Against this conceptual background, the theoretical framework is organized into two interconnected areas. Section 1.1 examines the linguistic, cognitive, and communicative characteristics of speech and language underdevelopment in preschool children, thereby defining the developmental and communicative needs of the target population. Section 1.2 then considers narrative and storytelling practices as educational and intervention contexts in which vocabulary development, discourse organization, turn-taking, and collaborative meaning-making can be supported. Thus, the first section explains the challenges affecting children's dialogic speech, while the second presents the theoretical and pedagogical basis for narrative-based support. Together, these perspectives provide the conceptual foundation for interpreting the bibliometric clusters identified in the study and tracing their evolution across the 2005–2025 period.

The specific problem under study, how it relates to previous work, why and how it is different and how it will contribute to the field should be explained in this section. The arguments and discussion should be grounded on relevant evidence from review of literature. The need that the study intends to meet should be stated clearly by providing evidence from previous research in the field. At the end of the Introduction, the aims of the study should be explained clearly as questions or hypotheses. Sub-headings can be used in this section if needed.

The Problem of Dialogic Speech Development in Preschool Children with Speech Underdevelopment

Significant linguistic, cognitive, and communicative challenges characterize the development of dialogic speech in preschool children with speech and language underdevelopment. These children often experience difficulties in expressive and receptive language, including limited vocabulary, reduced grammatical competence, and impaired discourse organization. As a result, their ability to initiate and maintain dialogue, respond appropriately, and express coherent ideas is significantly constrained (Dadon Jorno et al., 2025; Noel et al., 2008).

Existing evidence indicates that narrative competence is closely linked to dialogic speech development. Children with language impairments frequently demonstrate difficulties in narrative production, including problems in structuring events, maintaining coherence, and expressing ideas clearly (Olalowo & Babalola, 2024; Özcan et al., 2022; Peña et al., 2014). These limitations restrict their ability to engage in communicative interaction and undermine their overall communication effectiveness.

In addition to verbal difficulties, communication challenges in such children may extend to nonverbal modalities. Gesture plays an important role in supporting communication; however, studies show that children with language impairment often demonstrate reduced gesture accuracy, suggesting that their communicative difficulties are multidimensional and extend beyond speech alone (Wray et al., 2017).

These linguistic, cognitive, and interactional difficulties demonstrate that supporting dialogic speech requires more than correcting isolated speech production problems. Preschool children need structured communicative situations in which they can practice vocabulary use, sequential organization, turn-taking, and expressing coherent meanings. Narrative and storytelling activities provide such a context and are therefore considered in the following section.

The Role of Narrative and Folk Tales in Developing Dialogic Speech

Narrative-based approaches are widely recognized as effective strategies for supporting dialogic speech development in preschool children. Narrative activities create structured communicative contexts in which children can practice vocabulary, organize discourse, and engage in interaction. Research demonstrates that narrative intervention can significantly improve language outcomes, including lexical diversity, coherence, and expressive language abilities (Dadon Jorno et al., 2025; Özcan et al., 2022).

Beyond improving linguistic outcomes, narrative interaction encourages children to participate actively in communication through storytelling and shared narrative activities. Narrative interaction also facilitates the development of dialogic competence by encouraging children to participate actively in communication. Through storytelling and shared narrative activities, children learn to structure events, express ideas, and maintain conversational exchange. Adult scaffolding through questioning, prompting, and feedback plays a crucial role in supporting children's participation and language development (Melzi et al., 2011; Mpiti et al., 2023).

Within this context, traditional storytelling, particularly folk tales, represents a valuable pedagogical resource (Odularu et al., 2024). Folk narratives are characterized by clear structure, repetitive patterns, and rich dialogic content, which create natural opportunities for communication. These features support the development of turn-taking, question–answer interaction, and expressive speech. Despite their educational potential, the representation of narrative-based and culturally grounded storytelling approaches in the international scientific

literature remains poorly understood, underscoring the need for a bibliometric examination of this research field.

Method

Research Design

The present study employed a bibliometric research design based on a systematic literature search and selection process, following the PRISMA 2020 guidelines (Page et al., 2021), to examine the scientific landscape of research on dialogic speech development among preschool children with speech and language underdevelopment. The literature search and data retrieval were conducted in the Scopus database at the end of May 2026. The research dataset covering the period from 2005 to 2025 was compiled using the Scopus database. The selection of Scopus as the primary source of bibliographic data was determined by several methodological considerations. These include broad interdisciplinary coverage, inclusion of peer-reviewed scientific journals, rigorous indexing standards, and an advanced citation tracking system. In addition, the database provides structured bibliographic metadata that facilitates the identification of publication trends, citation relationships, scientific collaboration, and thematic development within a particular research field. Given its extensive coverage of publications in education, psychology, linguistics, and speech-language pathology, Scopus was considered an appropriate source for investigating studies on preschool speech and language development. The methodological framework of the study was developed in accordance with the PRISMA 2020 guidelines, which ensure transparency and consistency in the processes of identifying, screening, and selecting publications. The overall methodological procedure applied in the study is presented in Figure 1. Figure 1 illustrates the PRISMA flow diagram describing the identification, screening, eligibility assessment, and final inclusion of publications.

PRISMA 2020 flow diagram for new systematic reviews which included searches of databases and registers only

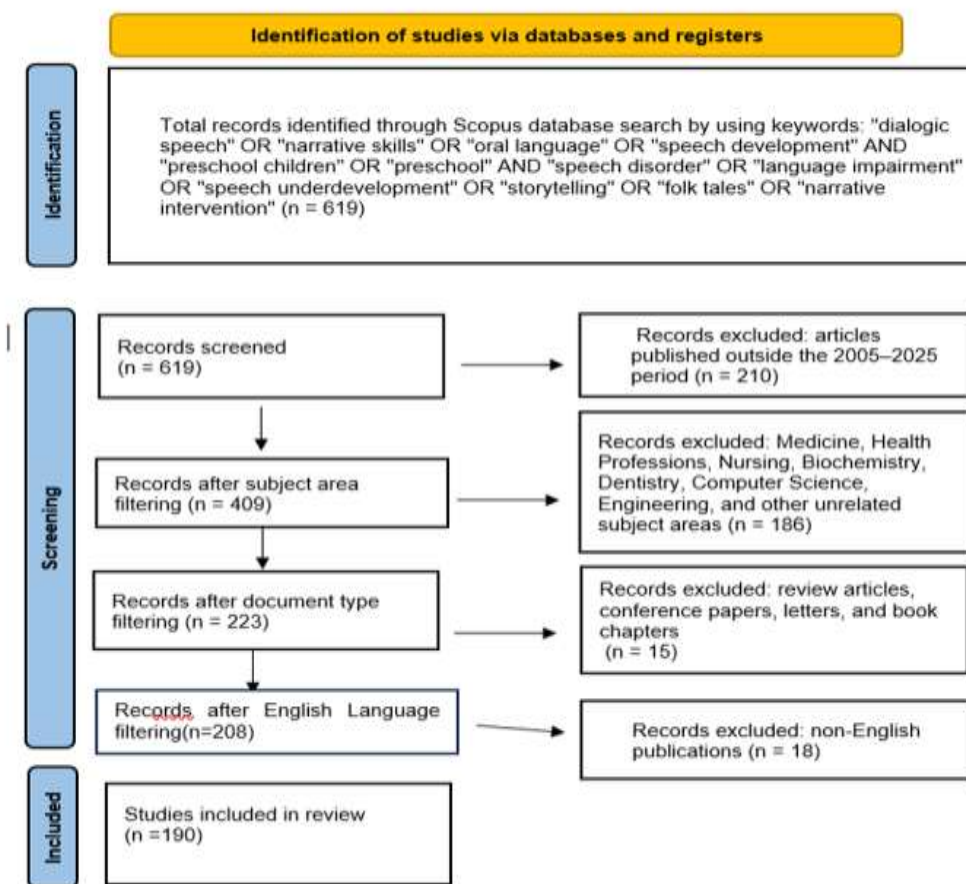


Figure 1. PRISMA 2020 Flow Diagram of the Identification, Screening, and Inclusion of Publications in the Bibliometric Analysis

Information Search Strategy

The search was performed in the TITLE-ABS-KEY fields of the Scopus database. At the initial stage, an expanded search strategy was developed to ensure comprehensive coverage of relevant scientific publications and to minimize the possibility of excluding significant studies. The search used combinations of terms related to dialogic speech, oral language, narrative development, preschool education, and speech or language impairment. Specifically, the search query included the following expressions: “dialogic speech” OR “narrative skills” OR “oral language” OR “speech development” AND “preschool children” OR “preschool” AND “speech disorder” OR “language impairment” OR “speech underdevelopment” OR “storytelling” OR “folk tales” OR “narrative intervention”.

The initial Scopus search identified 619 records. The screening and filtering criteria were applied sequentially to obtain a thematically focused and methodologically consistent dataset. First, 210 publications outside the predefined 2005–2025 period were excluded. These records were removed because they did not correspond to the chronological scope specified in the title, objectives, and research questions and could not contribute to the period-based comparative analysis. After application of the chronological criterion, 409 records remained.

At the next stage, 186 records associated with subject areas outside the study's educational, linguistic, psychological, and communicative scope were excluded. These records included studies primarily concerned with biomedical diagnosis or treatment, pharmacological management, nursing procedures, biochemical mechanisms, dental conditions, engineering applications, or computer-based technical systems without a substantive focus on preschool children's speech and language development. Records were also considered thematically irrelevant when their titles, abstracts, and keywords did not address preschool oral language, narrative skills, dialogic interaction, storytelling, speech or language impairment, or related educational interventions. Studies involving clinical populations were retained when their bibliographic information demonstrated a direct focus on children's speech, language, narrative, or communicative development. After subject-area and topical filtering, 223 records remained.

Document-type eligibility was then applied. Fifteen records were excluded because they were review articles, conference papers, letters, or book chapters. Reviews were removed because they synthesized previously published findings rather than reporting original research data. Conference papers were excluded because their reporting and peer-review procedures may differ from those of full journal articles. In contrast, letters and book chapters were excluded to maintain consistency in publication type. Consequently, the dataset was restricted to original peer-reviewed research articles, leaving 208 records.

Finally, 18 non-English publications were excluded. The period-based thematic analysis required consistent interpretation of titles, abstracts, author keywords, and index keywords, and no validated multilingual translation and coding procedure was employed in the present study. The language restriction was therefore introduced to reduce possible inconsistencies in thematic classification. No duplicate records were identified because the records were obtained from a single Scopus export and each publication was checked using its title, DOI, and Scopus EID.

Following all screening stages, 190 unique English-language research articles published between 2005 and 2025 were included in the bibliometric analysis.

The following bibliographic information was extracted from each publication: article title, year of publication, source title, authors and affiliations, countries represented in the authors' affiliations, abstract, author keywords, index keywords, citation data, and DOI. The extracted records were organized into a structured database that served as the basis for the bibliometric and period-based comparative analyses.

Data Analysis Procedures

Bibliometric analysis was conducted using VOSviewer software (van Eck & Waltman, 2010), designed for constructing and visualizing bibliometric networks. In VOSviewer, analytical units are represented as nodes, with node size reflecting the relative significance of element. The spatial proximity between nodes indicates the degree of relatedness, while the connecting lines represent the strength of relationships among the analyzed elements. Different colors are used to distinguish clusters within the bibliometric network. The procedure for constructing bibliometric maps involved three principal stages: Normalization of bibliographic data, two-dimensional projection of relationships between elements, and clustering analysis. To examine the social structure of the scientific field, co-authorship analysis was conducted at the levels of authors and countries. This approach enabled the identification of collaboration patterns and the main contributors within the research area. The intellectual structure of the field was investigated through co-citation analysis of journals and scientific sources. Groups of frequently co-cited journals were interpreted as representing the principal disciplinary foundations underlying research on dialogic speech and preschool language development. The conceptual structure of the field was identified through keyword co-occurrence analysis. Clusters of related keywords revealed the dominant thematic directions and major research trends addressed within the scientific literature. The combined application of co-authorship, co-citation, and keyword co-occurrence analyses provided a comprehensive understanding of the intellectual, social, and conceptual structure of research on dialogic speech development among preschool children with speech and language underdevelopment.

For the keyword co-occurrence analysis, author keywords were used as the unit of analysis, and the minimum occurrence threshold was set at five occurrences per keyword. This threshold resulted in the inclusion of 20 keywords in the final network. It was selected to balance thematic

coverage with network clarity and interpretability by excluding isolated and very infrequent terms that could fragment the network while retaining recurrent concepts representing the principal thematic structure of the corpus. Less frequent concepts that could indicate emerging or culturally specific research directions were additionally examined through document-level manual content analysis. To examine changes in the research field over time, the final dataset of 190 publications was divided into four consecutive periods: 2005–2009, 2010–2014, 2015–2019, and 2020–2025. The final period spans six years because 2025 marks the end of the study. The four periods comprised 53, 53, 41, and 43 publications, respectively. Titles, abstracts, author keywords, and index keywords were examined to identify changes in dominant research themes, theoretical orientations, research populations and contexts, intervention approaches, educational settings, participant reporting, policy-related indicators, and culturally grounded approaches. Each thematic indicator was counted only once per publication, even when the corresponding term appeared multiple times in the bibliographic record. Because individual publications could address more than one theme, the thematic categories were not mutually exclusive; consequently, their frequencies do not sum to the total number of publications.

To answer Research Question 5, an additional document-level content analysis was conducted using the titles, abstracts, author keywords, and index keywords of all 190 publications. The coding procedure distinguished five related but conceptually different categories: (1) narrative-related research; (2) storytelling-related research; (3) broader cultural, cross-cultural, transcultural, sociocultural, or cultural-heritage indicators; (4) storytelling explicitly grounded in a particular cultural or linguistic heritage; and (5) explicit references to folk tales, folktales, folklore, or traditional tales. References to Kazakhstan and Kazakh-speaking populations were coded separately. Each category was counted only once per publication, regardless of the number of occurrences of the corresponding terms in the bibliographic record. The categories were not mutually exclusive. All records containing cultural indicators were subsequently examined manually to determine whether cultural heritage constituted a substantive component of the storytelling practice or merely described the linguistic, geographical, assessment, or participant context. To enhance the consistency of the manual content analysis, all 190 publications were coded in two successive rounds using the same predefined coding framework. During the second round, the titles, abstracts, author keywords, and index keywords of all records were re-examined. The aggregated results of the two coding rounds were compared across the four periods, and minor

discrepancies were identified in several thematic, population, intervention, and reporting categories. Each discrepancy was checked against the original Scopus record and resolved before the final frequencies and percentages were calculated. The reconciled publication-level coding register served as the basis for the final period-based analysis.

Findings

Evolutionary Dynamics of Research Activity: Analysis of Publication Trends

Analysis of the temporal dynamics of publications on dialogic speech development in preschool children reveals uneven growth in scientific interest from 2005 to 2025, as illustrated in Figure 2. The annual number of publications fluctuated between 4 and 17, indicating no consistently stable growth trajectory over the period analyzed.

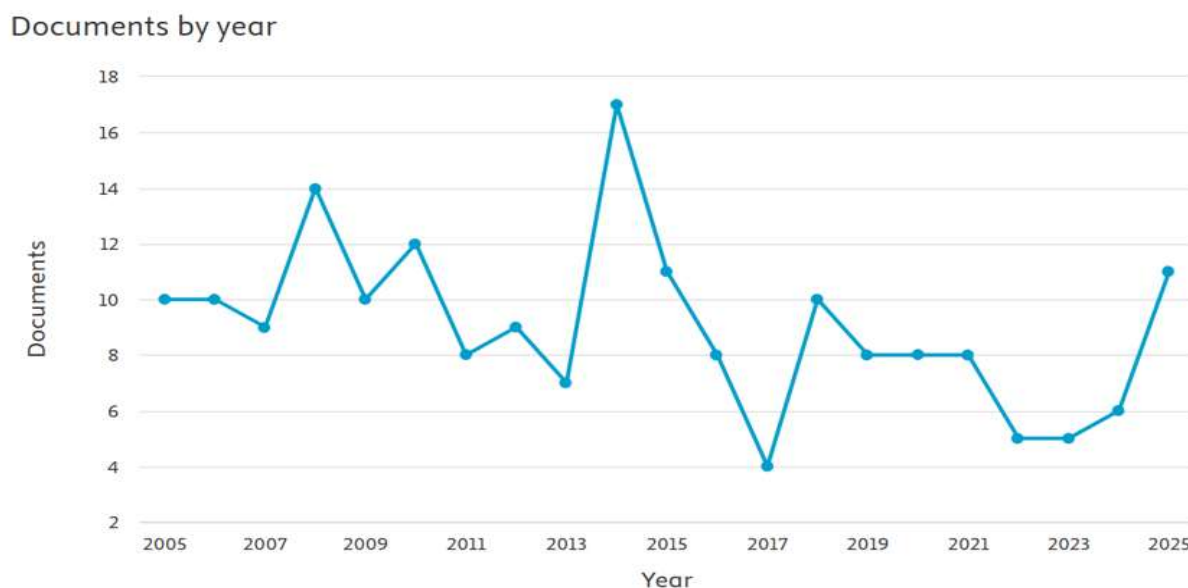


Figure 2. Documents by Year Related to Dialogic Speech Development in Preschool Children with Speech and Language Underdevelopment (2005–2025)

At the beginning of the observation period, publication output remained relatively moderate. In 2005 and 2006, the number of publications was 10 annually, then declined slightly to 9 in 2007. Nevertheless, scientific interest increased again in 2008, when publication activity reached 14 studies. This increase was followed by another decline in 2009 and a moderate rise in 2010, when 12 publications were recorded. Between 2011 and 2013, the number of studies remained relatively stable, with 7-9 publications per year. However, the most significant increase in publication

activity occurred in 2014, when the number of publications reached 17, the highest value in the analyzed dataset. This peak suggests a period of heightened scholarly attention to preschool speech development, narrative competence, and communication disorders. Following the 2014 peak, scientific production demonstrated a downward trend. The number of studies decreased to 11 publications in 2015 and 8 publications in 2016. The lowest publication output was observed in 2017, with only 4 studies recorded. This decline may indicate a temporary reduction in research productivity or a redistribution of scientific attention toward adjacent areas of language and developmental research. From 2018 to 2021, publication activity again stabilized at a moderate level, fluctuating between 8 and 10 studies annually. During the subsequent period from 2022 to 2024, publication output decreased slightly to between 5 and 6 publications per year. However, in 2025, publication activity increased again to 11 studies, indicating renewed research interest in the field. Overall, the temporal dynamics demonstrate that research on dialogic speech development in preschool children has received sustained scholarly attention throughout the period analyzed. However, the field has been characterized by periodic fluctuations rather than linear growth. The absence of sustained expansion in the field's publications may indicate that the field remains relatively specialized and interdisciplinary, drawing contributions from speech-language pathology, psychology, education, and communication sciences.

Documents per Year by Source: Analysis of Core Publication Sources

The analysis of publication sources demonstrates that research on dialogic speech development in preschool children is concentrated within a limited number of specialized journals in the fields of speech-language pathology, communication disorders, and clinical linguistics, as shown in Figure 3.

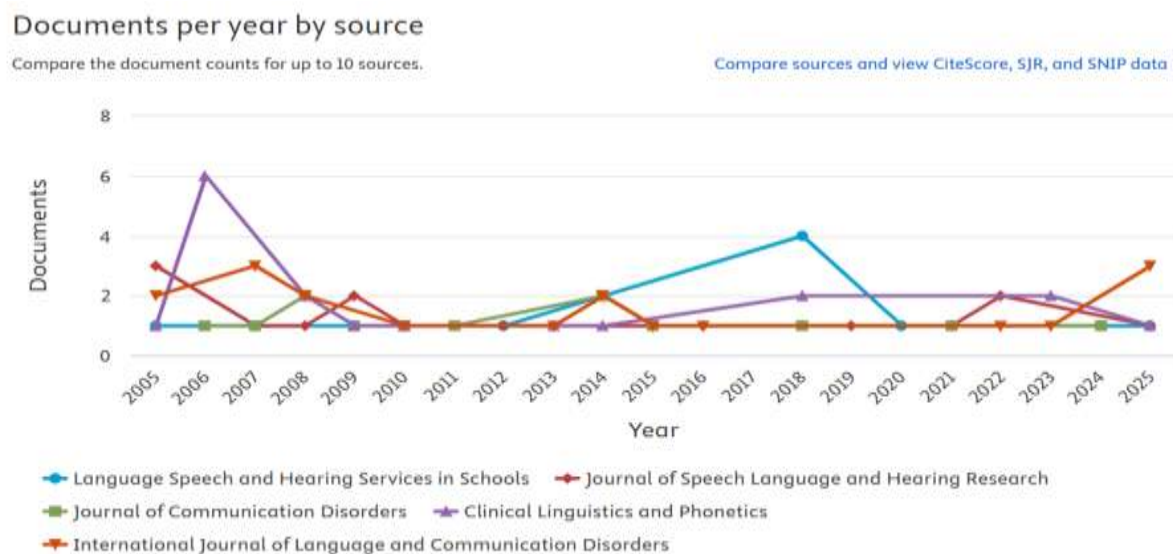


Figure 3. Documents per Year by Source Related to Dialogic Speech Development in Preschool Children with Speech and Language Underdevelopment

Among the sources analyzed, Clinical Linguistics and Phonetics had the highest research output in the early stage of the period. In 2006, this journal accounted for 6 publications, representing the highest single-year contribution among all analyzed publication sources. However, following this peak, publication activity within the journal gradually declined, remaining comparatively limited after 2008. This pattern may reflect that earlier research interest in the field was more strongly associated with clinical and phonetic approaches to speech development. In contrast, Language Speech and Hearing Services in Schools demonstrated a different publication trajectory. Publication activity within this source increased gradually between 2013 and 2018, reaching 4 publications in 2018. The concentration of publications in this journal during the later period may indicate growing scientific attention to school-based and educational approaches to speech and language intervention in preschool and early childhood settings. The Journal of Speech, Language, and Hearing Research demonstrated relatively stable publication activity throughout the period analyzed. Although annual publication numbers remained comparatively low, the journal consistently contributed publications across multiple years, suggesting its stable role as one of the principal academic outlets in the field. Similarly, Journal of Communication Disorders and International Journal of Language and Communication Disorders demonstrated moderate but continuous publication activity throughout the analyzed period. The stability of these journals

indicates the sustained relevance of research on communication disorders and language impairment within the broader field of preschool speech development. The distribution of publications across several specialized journals demonstrates the interdisciplinary nature of the research area. At the same time, the relatively small annual publication counts in individual journals suggest that research on dialogic speech development remains fragmented across multiple disciplinary domains rather than concentrated in a single dominant scientific outlet.

Documents by Author: Analysis of Author Productivity

Analysis of author productivity revealed a relatively balanced distribution of publications among the leading researchers in the dataset, as shown in Figure 4. No individual author demonstrated substantial dominance, suggesting the absence of a highly centralized authorship structure within the field.

Documents by author

Compare the document counts for up to 15 authors.

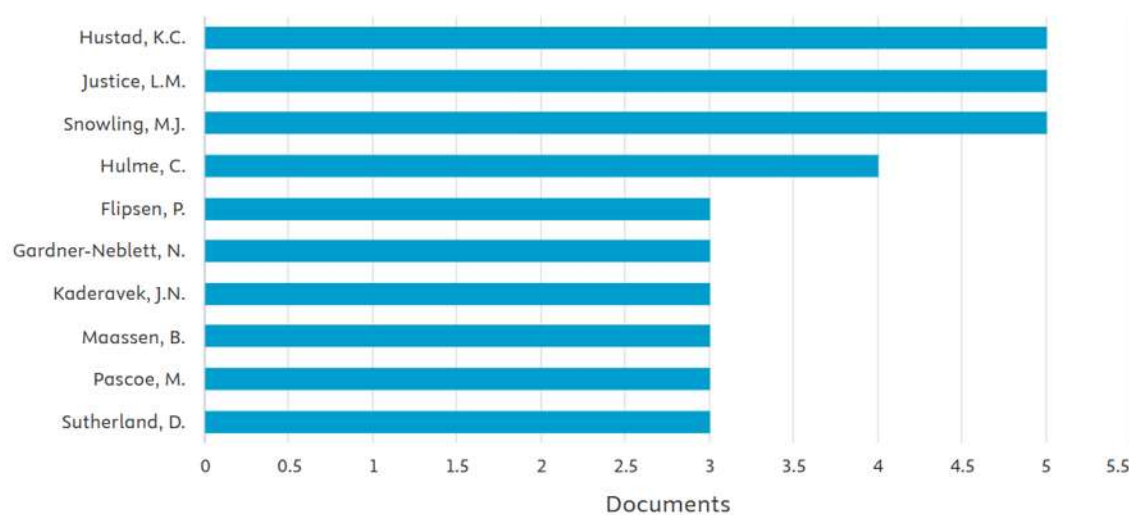


Figure 4. Documents by Author Related to Dialogic Speech Development in Preschool Children with Speech and Language Underdevelopment (Top 10 Authors)

The most productive authors were Hustad, K.C., Justice, L.M., and Snowling, M.J., each contributing 5 publications. The relatively equal contributions of these authors suggest that scientific leadership in the field is distributed among several researchers rather than concentrated around a single dominant scholar or research group. Hulme, C. contributed 4 publications, while

Flipsen, P., Gardner-Neblett, N., Kadarevek, J.N., Maassen, B., Pascoe, M., and Sutherland, D. each contributed 3 publications. The relatively low number of publications among the leading authors indicates that research activity within the field may be distributed across a broad range of scholars and institutions.

Documents by Country or Territory: Geographical Distribution of Research Activity

The geographical distribution of publications demonstrates a clear predominance of the United States within the analyzed dataset, as shown in Figure 5. The United States' publication output substantially exceeded that of all other countries represented in the analysis. This dominance indicates that the United States as the principal center of scientific production in the fields of dialogic speech development and preschool communication disorders.

Documents by country or territory

Compare the document counts for up to 15 countries/territories.

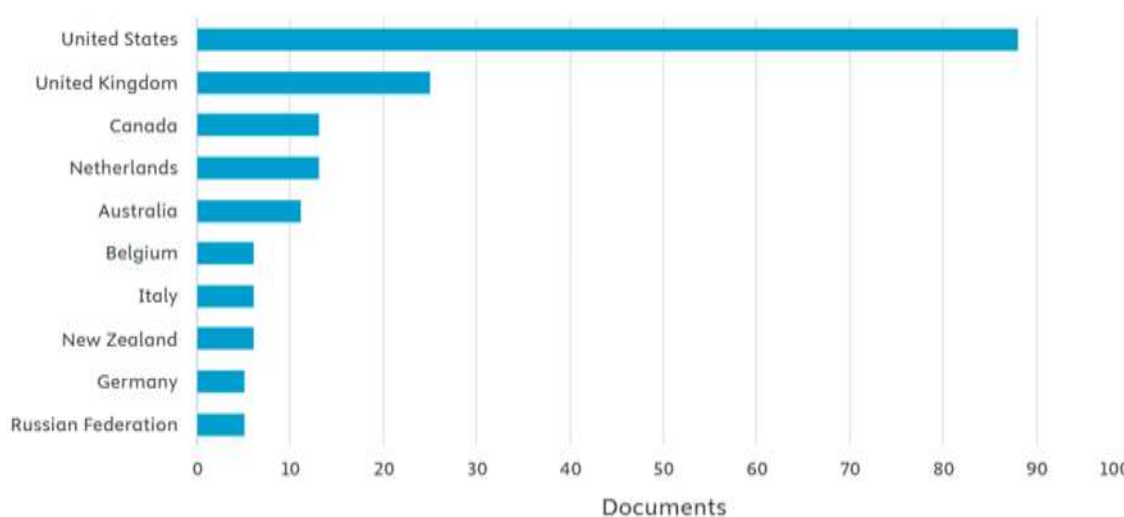


Figure 5. Documents by Country or Territory Related to Dialogic Speech Development in Preschool Children with Speech and Language Underdevelopment (Top 10 Countries)

The United Kingdom ranked second in publication productivity, although the number of publications remained considerably lower than that of the United States. Additional contributions were identified from Canada, the Netherlands, and Australia, each demonstrating moderate levels of publication activity. Smaller publication outputs were associated with Belgium, Italy, New Zealand, Germany, and Russia. The comparatively limited representation of non-English-speaking countries suggests that scientific production in the field remains concentrated primarily within

English-speaking academic systems. The observed geographical imbalance may reflect several factors, including differences in research funding, institutional support for speech-language pathology, availability of specialized early childhood intervention programs, and the dominance of English-language academic publishing within international databases. At the same time, the limited representation of Asian, African, and Latin American countries indicates insufficient geographical diversification of the research field. Consequently, culturally specific approaches to dialogic speech development may remain underrepresented within the international scientific literature.

Documents by Subject Area: Interdisciplinary Structure of the Research Field

The analysis of subject-area distribution demonstrates the interdisciplinary nature of research on dialogic speech development in preschool children, as shown in Figure 6. The identified publications were distributed across several disciplinary areas, including education, psychology, medicine, neuroscience, and communication sciences.

Documents by subject area

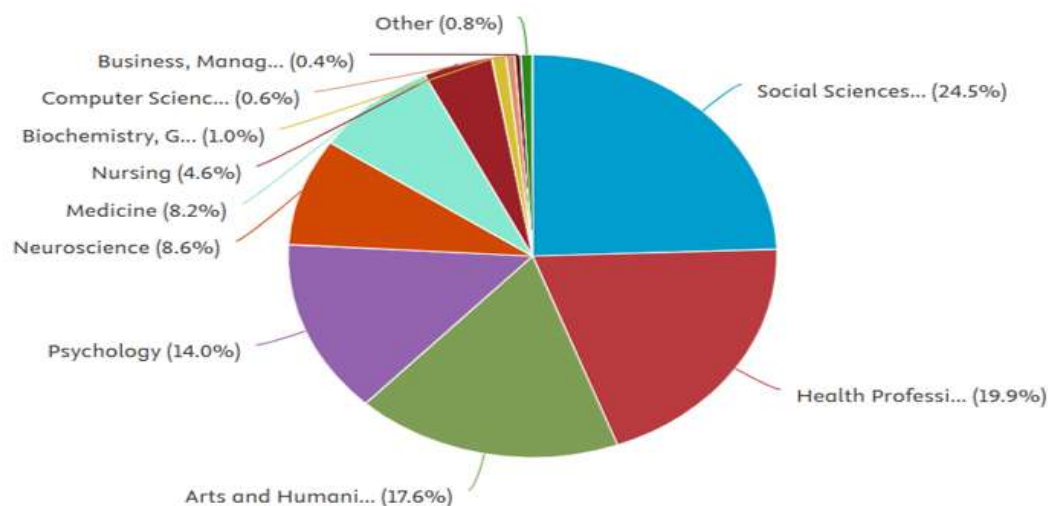


Figure 6. Documents by Subject Area Related to Dialogic Speech Development in Preschool Children with Speech and Language Underdevelopment

The largest proportion of publications was in the Social Sciences, accounting for 24.5% of the dataset. The predominance of this category suggests that dialogic speech development is more

frequently examined in educational, sociocultural, and communicative contexts than in clinical frameworks. Health Professions accounted for 19.9% of publications, reflecting the significant contributions of speech-language pathology and rehabilitation sciences to the field's development. The substantial proportion of publications in this category demonstrates the ongoing clinical orientation of research on speech and language disorders in preschool children. Arts and Humanities accounted for 17.6% of publications, suggesting the important role of linguistics, narrative studies, and discourse analysis within the field. Psychology accounted for 14.0% of publications, highlighting the close relationship among language development, cognitive processes, and communicative behavior in early childhood. Additional subject areas included Neuroscience (8.6%), Medicine (8.2%), and Nursing (4.6%). These categories indicate that a considerable proportion of studies approach speech development from neurodevelopmental and medical perspectives. Smaller proportions of publications were associated with Biochemistry, Genetics and Molecular Biology (1.0%), Computer Science (0.6%), Business, Management and Accounting (0.4%), and other fields (0.8%). The limited representation of these disciplines suggests that technologically oriented or biologically focused approaches currently occupy a relatively minor position within the research field. The analysis shows that research concerning dialogic speech development in preschool children integrates educational, linguistic, psychological, and clinical perspectives simultaneously. However, the predominance of Social Sciences and Health Professions indicates that the field is primarily oriented toward applied educational and therapeutic contexts rather than toward purely theoretical or technological approaches.

Conceptual Structure of the Research Field: Keyword Co-occurrence Analysis

The conceptual structure of research on dialogic speech development in preschool children was analyzed using keyword co-occurrence mapping in VOSviewer, based on 190 publications retrieved from the Scopus database. The analysis was conducted using the co-occurrence method with author keywords as the unit of analysis. The minimum threshold was set at 5 occurrences per keyword, resulting in the selection of 20 keywords for network visualization, as shown in Figure 7.

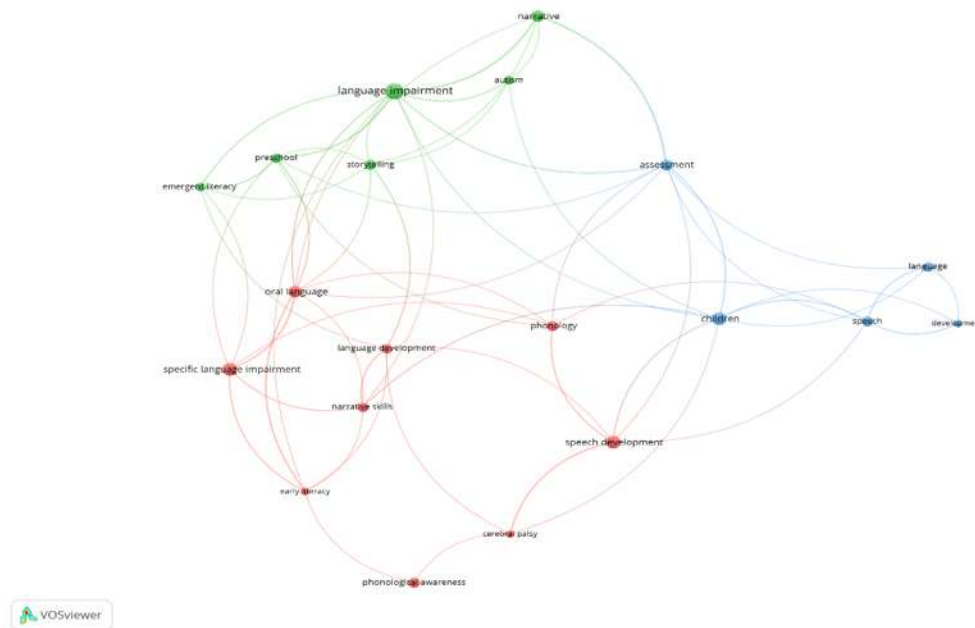


Figure 7. *Keyword Co-occurrence Network Related to Dialogic Speech Development in Preschool Children*

The bibliometric network revealed three principal thematic clusters interconnected through multiple conceptual relationships. The size of nodes reflects the frequency of keyword occurrence, while the connecting lines indicate the strength of relationships between terms. Different colors represent distinct thematic clusters within the field's conceptual structure. The first cluster, represented in blue, is centered around the keyword's children, speech, language, development, and assessment. This cluster reflects the general developmental and diagnostic dimension of the research field. The central position of the keyword "children" indicates that preschool child development is the principal focus of the studies analyzed. Strong connections between speech, language, and development indicate the close conceptual relationship between communication development and broader developmental processes in early childhood. In addition, the presence of the keyword "assessment" suggests substantial scientific attention to diagnostic and evaluative approaches in speech and language research. The second cluster, represented in red, includes keywords such as speech development, language development, oral language, narrative skills, specific language impairment, phonological awareness, phonology, early literacy, and cerebral

palsy. This cluster reflects the linguistic and clinical dimensions of dialogic speech research. The strong interconnections among these terms demonstrate that narrative competence, oral language, and phonological development are frequently examined together in studies of speech and language disorders.

Furthermore, the inclusion of specific language impairment and cerebral palsy indicates the presence of clinically oriented research addressing speech development difficulties among children with developmental disorders. The third cluster, represented in green, is associated with keywords such as language impairment, preschool, storytelling, narrative, autism, and emergent literacy. This cluster reflects the narrative and educational dimensions of the field. The close relationship between storytelling, narrative, and preschool suggests that narrative-based approaches constitute an important thematic direction within research concerning dialogic speech development. In addition, the inclusion of autism and language impairment demonstrates that narrative and storytelling approaches are frequently examined in relation to children with communication difficulties and developmental disorders. The network structure demonstrates substantial interconnection between the three clusters. Keywords associated with language development, narrative competence, assessment, and speech disorders occupy central positions within the conceptual map, indicating their integrative role within the research field. In particular, the connections among oral language, language development, speech development, and storytelling suggest that contemporary research presents dialogic speech as a multidimensional phenomenon that simultaneously involves linguistic, cognitive, educational, and communicative processes. Overall, the co-occurrence analysis demonstrates that the field's conceptual structure integrates developmental, clinical, and narrative-oriented approaches to dialogic speech development in preschool children.

Source Co-citation Analysis

Source co-citation analysis was conducted using VOSviewer to identify the principal journals that form the intellectual structure of research on dialogic speech development in preschool children. The analysis was based on 190 publications retrieved from the Scopus database. Co-citation analysis was performed using sources as the unit of analysis and full counting as the counting method. The bibliometric network comprised 55 sources organized into four thematic clusters, connected by 1,308 links, with a total link strength of 50,315. The size of nodes reflects citation frequency, whereas the links between nodes indicate co-citation relationships among sources.

Different colors represent thematic clusters within the intellectual structure of the research field, as illustrated in Figure 8.

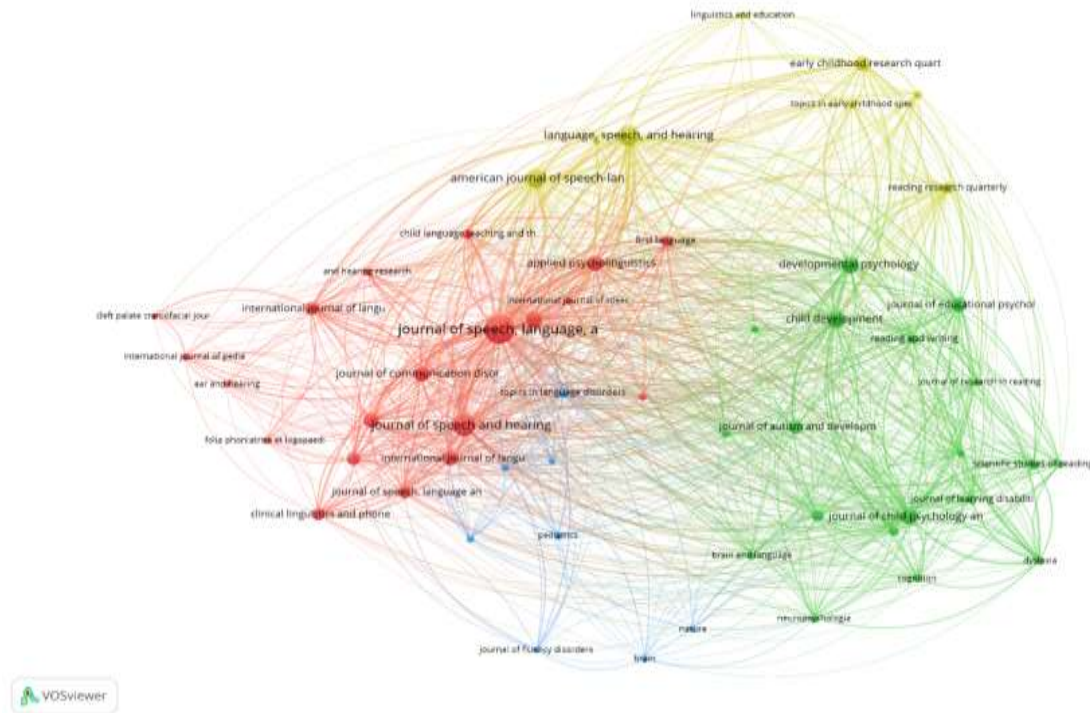


Figure 8. Source Co-citation Network in Research on Dialogic Speech Development in Preschool Children

The red cluster represents the core clinical and speech-language pathology orientation of the field. This cluster includes highly central journals such as Journal of Speech, Language, and Hearing Research, Journal of Speech and Hearing Research, Journal of Communication Disorders, Clinical Linguistics and Phonetics, and International Journal of Language and Communication Disorders. The strong co-citation relationships among these journals indicate that research on dialogic speech development is heavily grounded in clinical approaches to communication disorders, language impairment, and speech assessment. The dominant position of Journal of Speech, Language, and Hearing Research within the network demonstrates its role as one of the principal intellectual foundations of the field. The green cluster reflects developmental psychology and literacy-oriented perspectives. This cluster includes journals such as Child Development, Developmental Psychology, Journal of Child Psychology and Psychiatry, Journal of Research in Reading, Reading and Writing, Scientific Studies of Reading, and Dyslexia. The concentration of journals on reading

development, cognition, and child psychology indicates strong conceptual connections among speech development, literacy acquisition, and broader cognitive development in early childhood. In addition, the inclusion of the *Journal of Autism and Developmental Disorders* suggests growing scientific attention to communication development in children with developmental disorders. The yellow cluster primarily represents educational and applied psycholinguistic perspectives within the field. This cluster includes sources such as *Language, Speech, and Hearing Services in Schools*, *Applied Psycholinguistics*, *Early Childhood Research Quarterly*, *Reading Research Quarterly*, and *Linguistics and Education*. The relationships among these journals demonstrate the importance of educational intervention, preschool communication, and language learning within contemporary research. The presence of early childhood and educational journals additionally indicates growing interest in school readiness, emergent literacy, and language support within preschool settings. The blue cluster reflects neurodevelopmental and biomedical dimensions of speech and language research. This cluster includes journals such as *Brain and Language*, *Brain*, *Neuropsychology*, *Developmental Medicine and Child Neurology*, and *Journal of Fluency Disorders*.

The inclusion of these journals indicates that part of the research field approaches dialogic speech development through neurological, cognitive, and neurodevelopmental frameworks. However, compared to the clinical and developmental clusters, the biomedical cluster occupies a more peripheral position within the network. The co-citation structure demonstrates that the field's intellectual foundations are primarily shaped by clinical speech-language pathology, developmental psychology, and literacy research. Journals associated with communication disorders and language impairment occupy the most central positions within the network, indicating the predominance of clinical and psycholinguistic paradigms in contemporary studies of preschool speech development. At the same time, journals associated with sociocultural theory, culturally responsive pedagogy, folklore studies, and indigenous educational practices are largely absent from the co-citation network. This finding suggests that research on dialogic speech development remains predominantly oriented toward clinical assessment, language impairment, and developmental intervention. In contrast, culturally grounded and narrative-based educational approaches continue to occupy a comparatively marginal position within the field's intellectual structure. The results obtained therefore confirm the interdisciplinary nature of research on dialogic speech development while simultaneously revealing a significant imbalance between dominant clinical frameworks and comparatively underrepresented sociocultural approaches.

International Scientific Collaboration Network

International scientific collaboration on dialogic speech development in preschool children was analyzed using co-authorship network mapping in VOSviewer, based on country-level collaboration patterns (Figure 9). The analysis identified 11 countries connected through 19 collaboration links with a total link strength of 32, as shown in Figure 9.

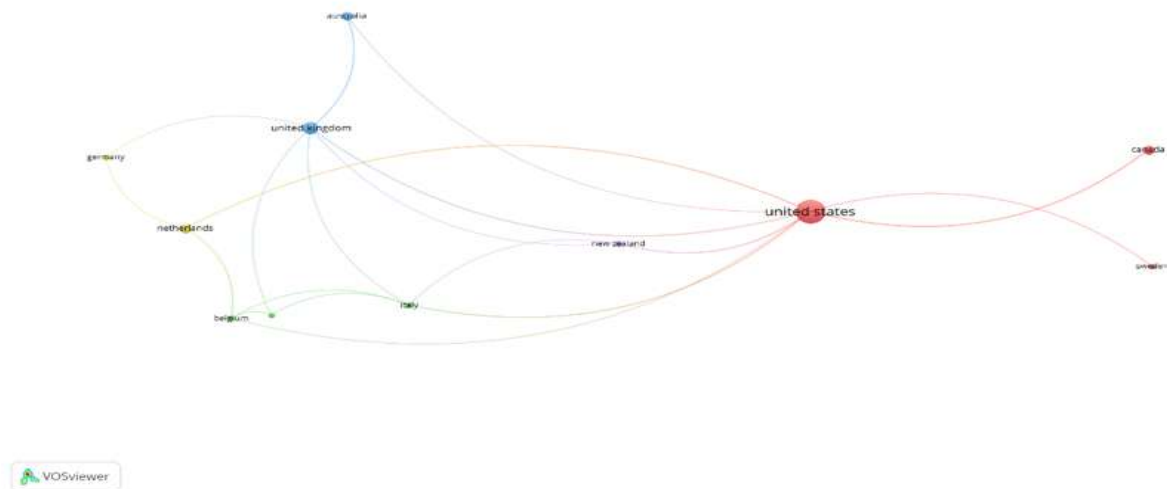


Figure 9. *International Scientific Collaboration Network by Country in Research on Dialogic Speech Development in Preschool Children*

The co-authorship network demonstrates a relatively concentrated structure, with a predominance of English-speaking countries in international scientific collaboration. The United States occupied the most central position within the network. It demonstrated the strongest collaboration links with multiple countries, indicating its role as the principal hub of international research cooperation in the field. Strong collaborative relationships were identified among the United States, the United Kingdom, Canada, Australia, and New Zealand. The United Kingdom also occupied an important position within the collaboration network, functioning as a secondary center of international cooperation. The United Kingdom demonstrated collaborative relationships with several European countries, including the Netherlands and Germany, as well as with Australia and the United States. Additional collaborative clusters involved Italy, Belgium, and South Africa, although these countries occupied comparatively peripheral positions within the network. Similarly, Sweden and

New Zealand demonstrated fewer collaboration links than the dominant English-speaking countries. Overall, the co-authorship network demonstrates that international scientific collaboration in the field remains concentrated primarily within Anglophone academic systems. The predominance of the United States and the United Kingdom indicates their central role in shaping the global research agenda concerning dialogic speech development in preschool children. The network demonstrates limited participation of non-Western countries.

Representation of Culturally Grounded Storytelling Traditions

Research Question 5 examined the extent to which culturally grounded storytelling traditions, including folk tales, were represented in the international literature on dialogic speech development. To answer this question, the titles, abstracts, author keywords, and index keywords of all 190 publications were analyzed at the document level.

Narrative-related indicators were identified in 51 publications, representing 26.8% of the final dataset. Their temporal distribution indicates a general increase in scholarly attention, despite some fluctuation across the periods. Narrative-related publications increased from seven of 53 records in 2005–2009 (13.2%) to 16 of 53 records in 2010–2014 (30.2%). Their number decreased to 9 of 41 publications in 2015–2019 (22.0%) and then increased to 19 of 43 publications in 2020–2025 (44.2%). Thus, narrative-related research was proportionally more than three times as prominent in the most recent period as in the earliest period.

Storytelling-related indicators were identified in 37 publications, accounting for 19.5% of the dataset. Their representation increased from three publications in 2005–2009 (5.7%) to nine in 2010–2014 (17.0%) and remained at nine publications in 2015–2019. However, their proportional representation increased to 22.0% due to the smaller number of publications during that period. Storytelling-related research subsequently reached 16 publications in 2020–2025 (37.2%). Accordingly, its proportional representation was more than six times higher in the most recent period than in 2005–2009. These findings demonstrate that narrative and storytelling became increasingly visible research directions, particularly during 2020–2025.

However, the expansion of storytelling research was not accompanied by a comparable representation of culturally grounded storytelling traditions. Only 10 publications in the complete dataset (5.3%) contained broader cultural, cross-cultural, transcultural, sociocultural, or cultural-heritage indicators. These publications addressed culturally and linguistically appropriate speech assessment, phonological development in particular languages, cultural factors influencing

narrative production and memory, multicultural classroom interaction, and sociocultural approaches to storytelling. The occurrence of a cultural indicator did not, necessarily mean that a study examined storytelling grounded in a particular community tradition or cultural heritage.

Manual examination of these records identified only two publications (1.1% of the dataset) in which storytelling was explicitly connected with a particular cultural or linguistic heritage. Flynn (2021) examined story circles in multicultural and multilingual preschool classrooms and demonstrated how storytelling developed through transcultural and translanguaging dialogic exchange. The study described how young participants established connections through shared ideas, languages, and storytelling practices; however, it did not examine folk tales as a distinct traditional genre.

Melzi et al. (2023) investigated a classroom-based oral storytelling program grounded in the cultural-heritage practices of Spanish-speaking communities. The study involved 12 teachers and 185 children attending a bilingual Head Start program serving predominantly immigrant families from Latin American backgrounds. It provided evidence that culturally grounded oral storytelling could improve the quality of teacher language input and support children's narrative skills. Among the 190 publications, this study provided the clearest example of the systematic incorporation of a community's cultural storytelling practices into preschool education.

The other publications containing cultural indicators did not directly investigate culturally grounded storytelling traditions. Some focused on culturally appropriate speech or phonological assessment among Korean-, isiXhosa-, Swahili-, or Arabic-speaking populations. Others adopted a general sociocultural perspective or examined cultural differences in narrative production, memory, or classroom interaction. Although these studies contribute to the linguistic and cultural diversity of the field, they cannot be classified as investigations of traditional storytelling practices. No publication in the final dataset explicitly used the terms "folk tale," "folktale," "folklore," or "traditional tale" in its title, abstract, author keywords, or index keywords. Therefore, folk tales were not represented as an explicitly identifiable research focus in the searchable bibliographic metadata.

Two publications referred to Kazakhstan or Kazakh-speaking preschool children. Both were published during 2020–2025 and focused on game technology, speech games, and the development of word-formation skills among Kazakh-speaking children with speech disorders. Neither publication investigated Kazakh folk tales, traditional storytelling, folklore, or culturally

grounded narrative intervention. Thus, the presence of Kazakhstani research in the dataset does not indicate that Kazakh folk-narrative traditions have been examined.

The findings provide a direct answer to Research Question 5. Culturally grounded storytelling traditions were only marginally represented in the international literature: only two of the 190 publications explicitly connected storytelling with a particular cultural or linguistic heritage, and none identified folk tales or folklore as its research focus. Although narrative and storytelling research expanded substantially, particularly during 2020–2025, this growth rarely incorporated traditional or nationally grounded narrative resources. The educational use of Kazakh folk tales to develop dialogic speech among preschool children with speech and language underdevelopment therefore represents a distinct thematic, cultural, and geographical research gap.

Table 1

Representation of Narrative, Storytelling, and Cultural Indicators across the Four Periods

Research indicator	2005–2009, n = 53	2010–2014, n = 53	2015–2019, n = 41	2020–2025, n = 43	Total, N = 190
Narrative-related publications	7 (13.2%)	16 (30.2%)	9 (22.0%)	19 (44.2%)	51 (26.8%)
Storytelling-related publications	3 (5.7%)	9 (17.0%)	9 (22.0%)	16 (37.2%)	37 (19.5%)
Publications with broader cultural indicators	1 (1.9%)	2 (3.8%)	4 (9.8%)	3 (7.0%)	10 (5.3%)
Explicitly culturally grounded storytelling studies	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (4.7%)	2 (1.1%)
Explicit folk-tale or folklore studies	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Publications referring to Kazakhstan or Kazakh-speaking children	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (4.7%)	2 (1.1%)

Note. The categories are not mutually exclusive because a single publication could contain more than one thematic indicator. Each publication was counted only once within each category. Consequently, category frequencies must not be added together. Percentages were calculated using the number of publications in each period as the corresponding denominator.

Period-Based Comparative Analysis of Global Research Trends, 2005–2025

To examine the evolution of global research trends across the study period, the 190 publications were compared across four consecutive intervals: 2005–2009 ($n = 53$), 2010–2014 ($n = 53$), 2015–2019 ($n = 41$), and 2020–2025 ($n = 43$). The final interval spans six years because 2025 marks the study's endpoint. The comparison considered changes in frequently used keywords, research populations and contexts, intervention approaches, explicitly stated theoretical orientations, reported educational settings and participant numbers, and policy-related indicators. This period-based synthesis complements the VOSviewer results by clarifying how the field's substantive and methodological characteristics changed over time. The comparative findings are presented in Table 2. The second coding round resulted in minor adjustments to several period-based frequencies and percentages. The differences primarily concerned publications addressing overlapping thematic, population, or methodological categories. Following verification against the original Scopus records, the coding decisions were reconciled, and all percentages were recalculated using the number of publications in each period as the denominator: 2005–2009 ($n = 53$), 2010–2014 ($n = 53$), 2015–2019 ($n = 41$), and 2020–2025 ($n = 43$). The values reported in Table 2 are based on the final coding register covering all 190 publications.

Table 2

Period-Based Comparative Analysis of Research on Dialogic Speech Development among Preschool Children with Speech Underdevelopment, 2005–2025

Analytical dimension	2005–2009, $n = 53$	2010–2014, $n = 53$	2015–2019, $n = 41$	2020–2025, $n = 43$
Dominant themes	Speech and language assessment — 50 (94.3%); speech/language disorder or underdevelopment — 47 (88.7%); phonology and speech production — 30 (56.6%).	Speech/language disorder or underdevelopment — 49 (92.5%); speech and language assessment — 48 (90.6%); phonology and speech production — 29 (54.7%).	Speech/language disorder or underdevelopment — 28 (68.3%); speech and language assessment — 23 (56.1%); phonology and speech production — 22 (53.7%).	Speech/language disorder or underdevelopment — 23 (53.5%); storytelling and shared reading — 20 (46.5%); vocabulary and grammar — 19 (44.2%); narrative skills and discourse — 19 (44.2%).
Population indicators explicitly reported in titles and abstracts	Preschool- or kindergarten-aged children — 45 (84.9%); typically developing or comparison children — 33 (62.3%); children with autism or other neurodevelopmental	Typically developing or comparison children — 38 (71.7%); preschool-, kindergarten-, or early-childhood-related populations — 37 (69.8%); children with	Typically developing or comparison children — 29 (70.7%); preschool-, kindergarten-, or early-childhood-related populations — 26 (63.4%); children with	Preschool-, kindergarten-, or early-childhood-related populations — 37 (86.0%); typically developing or comparison children — 28 (65.1%); children with DLD/SLI/LI — 12 (27.9%).

	conditions — 18 (34.0%).	DLD/SLI/LI — 22 (41.5%).	DLD/SLI/LI — 14 (34.1%).	
Research-context indicators in bibliographic metadata	Clinical or therapeutic contexts — 41 (77.4%); home or family contexts — 8 (15.1%); experimental or laboratory contexts — 4 (7.5%); shared-reading or storytelling contexts — 3 (5.7%).	Clinical or therapeutic — 39 (73.6%); home or family — 9 (17.0%); shared reading or storytelling — 8 (15.1%); experimental or laboratory — 5 (9.4%)	Clinical or therapeutic context — 22 (53.7%); home or family context — 10 (24.4%); shared-reading or storytelling context — 9 (22.0%); experimental or laboratory context — 5 (12.2%).	Clinical or therapeutic context — 28 (65.1%); shared-reading or storytelling context — 16 (37.2%); experimental or laboratory context — 12 (27.9%); home or family context — 6 (14.0%).
Intervention approaches	4 (7.5%): phonological, speech/psychomotor, and AAC-supported interventions	9 (17.0%): shared/dialogic reading, early literacy, AAC, bilingual, and narrative interventions	6 (14.6%): narrative-, play-, technology-, and language-oriented interventions	8 (18.6%): bilingual/personal narrative, literacy, naturalistic communication, storytelling, and classroom-based interventions
Explicitly identified theories, models, hypotheses, and conceptual frameworks	21 (39.6%): phonological, lexical, narrative, cognitive, pragmatic, and speech-production perspectives	11 (20.8%): language impairment, phonological development, auditory and motor processing, narrative learning, and oral-language/literacy perspectives	10 (24.4%): speech and phonological development, literacy and dyslexia, narrative/play, language-rich learning, and psycholinguistic perspectives	6 (14.0%): learning, interactionistic, theory-of-mind, transcultural/translanguaging, and acceptability perspectives
Schools/settings and participants reported	Participant numbers reported — 41 (77.4%); institutional information reported — 2 (3.8%).	Participants: 50 (94.3%); institutions/settings: 1 (1.9%).	Participants: 32 (78.0%); institutions/settings: 6 (14.6%).	Participants: 34 (79.1%); institutions/settings: 6 (14.0%).
Policy-related indicators	0 (0.0%): no direct policy focus	0 (0.0%): no direct policy focus	1 (2.4%): direct policy focus	0 (0.0%): no direct policy focus

Across the four periods, the field shows a gradual transition from a predominantly clinical and deficit-oriented research domain towards a more diversified educational and communicative agenda. Early studies focused primarily on speech disorders, phonological production, diagnostic assessment, and therapeutic correction. Subsequent periods broadened this focus by incorporating vocabulary, grammar, literacy, narrative competence, storytelling, multilingual development, and children's broader communicative environments. The changing keyword structure supports this trajectory: terminology associated with articulation, phonetics, and measurement became less dominant, while narration, storytelling, literacy, verbal communication, and developmental language disorder became increasingly visible. Nevertheless, research explicitly conceptualized as

dialogic interaction remained marginal, indicating a persistent difference between the broad language-development literature retrieved and the narrower construct foregrounded in the study title.

The evolution of interventions and theoretical orientations further demonstrates this diversification. Earlier intervention research was largely associated with speech-language therapy. In contrast, later studies introduced shared reading, storytelling, play-based activities, digital tools, bilingual narrative intervention, naturalistic communication practices, and curriculum-based language support. The theoretical landscape also shifted from disorder-specific explanatory hypotheses and models towards sociocultural, psycholinguistic, translanguaging, crosslinguistic, dynamic-assessment, and implementation-oriented perspectives. However, theoretical foundations were usually implicit rather than explicitly stated in the bibliographic metadata. Consequently, the field appears to have expanded methodologically and conceptually without developing a consistently articulated theoretical framework for dialogic speech development.

The reporting of participants and research settings was generally detailed across the four periods. However, institutional reporting remained inconsistent, particularly regarding the total numbers of participating schools and preschool organizations; therefore, reliable cross-period aggregation at the institutional level was not possible. Policy-related attention emerged mainly in the most recent period through discussions of curricula, language of instruction, educational equity, service provision, and pandemic-related disruption, but explicit engagement with legislation or national speech-language policy remained absent. Overall, the field has progressed from pathology-centered investigation towards a more interdisciplinary understanding of children's language and narrative development. At the same time, the continued scarcity of explicitly dialogic, policy-oriented, and culturally grounded research—and the complete absence of folk-tale or folklore studies in the retrieved corpus—identifies a significant gap for future research.

Analysis of the distinctive characteristics of preschool-focused research shows a substantial change in thematic priorities between 2005–2015 and 2015–2025 (Figure 10). During 2005–2015, research was predominantly focused on speech and language assessment, speech/language disorders, and phonology. During 2015–2025, scientific attention became more diversified, with greater emphasis on storytelling, narrative skills, vocabulary and grammar, bilingualism, and sociocultural perspectives.

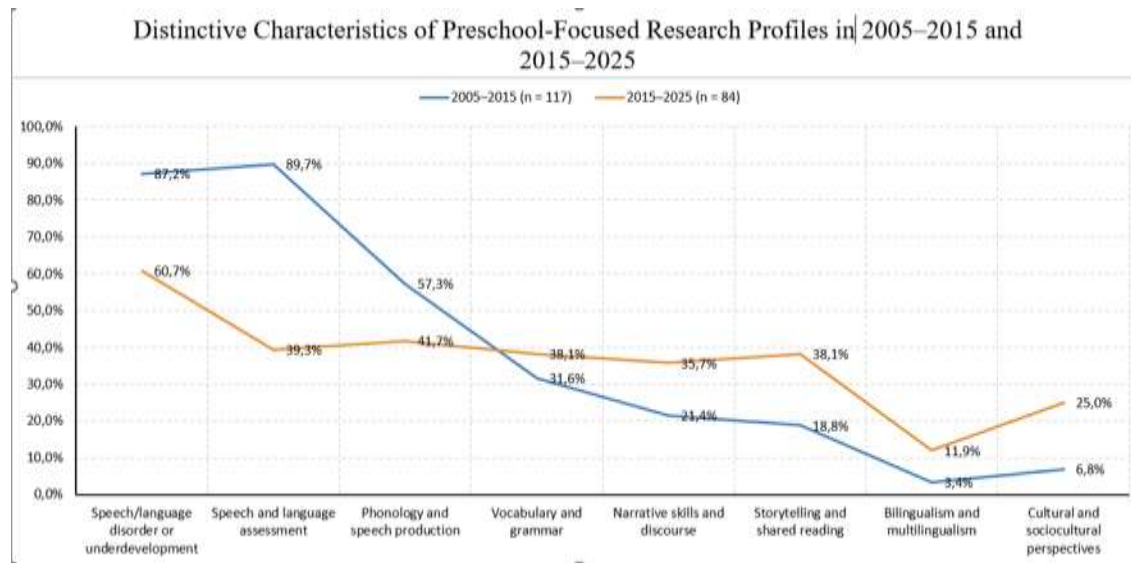


Figure 10. *Distinctive Characteristics of Preschool-Focused Research Profiles in 2005–2015 and 2015–2025*

Note. Publications from 2015 were included in both periods because the comparison intervals overlap. The categories were not mutually exclusive.

During 2005–2015, scientific attention was concentrated primarily on speech and language assessment (89.7%), speech/language disorder or underdevelopment (87.2%), and phonology and speech production (57.3%). A noticeable diversification of research priorities emerged in 2015–2025. Although speech/language disorder or underdevelopment remained the leading category (60.7%), the proportions of studies addressing assessment and phonology declined to 39.3% and 41.7%, respectively. At the same time, storytelling and shared reading increased from 18.8% to 38.1%, narrative skills and discourse from 21.4% to 35.7%, and vocabulary and grammar from 31.6% to 38.1%. Cultural and sociocultural perspectives also rose from 6.8% to 25.0%, while bilingualism and multilingualism increased from 3.4% to 11.9%.

The changing research profile reflects a broader conceptual development of the field. Earlier studies mainly approached preschool language development through clinical assessment, diagnosis, phonological development, and speech correction. In the later period, increasing recognition of narrative competence, shared reading, multilingual development, and children's sociocultural environments contributed to a more diversified research agenda. Thus, the field

gradually shifted from a predominantly clinical and deficit-oriented perspective towards a broader educational, communicative, and sociocultural understanding of preschool language development.

Discussion

Positioning the findings of the present study within the broader scientific literature on preschool speech and language development reveals both substantial convergence with existing research trends and several important differences associated with the field's thematic focus and bibliometric structure.

Previous studies on preschool communication have consistently emphasized the importance of oral language, narrative competence, and communicative interaction for children's cognitive, social, and academic development (Noel et al., 2008; Özcan et al., 2022). The findings of the present bibliometric analysis generally correspond with these tendencies. In particular, the publication dynamics shown in Figure 2 demonstrate sustained scientific interest in preschool speech and language development throughout the period analyzed. However, publication output periodically rather than showing continuous linear growth. The renewed publication activity observed during the later years suggests an expansion of interest in narrative, literacy, multilingualism, and educational intervention.

At the same time, the findings extend previous research by demonstrating that the field's conceptual orientation gradually shifted from narrowly clinical and speech-production-focused approaches towards broader interactional, narrative, and educational perspectives. The keyword co-occurrence network presented in Figure 7 identified conceptual relationships among speech development, oral language, narrative skills, storytelling, emergent literacy, and preschool communication. This pattern indicates that contemporary research increasingly conceptualizes children's communication not solely as an isolated linguistic function but as a multidimensional process involving linguistic knowledge, discourse organization, cognitive development, educational participation, and social interaction. Nevertheless, the comparatively limited visibility of explicitly dialogic terminology indicates that reciprocal communication has not yet developed into a clearly established independent research direction.

The period-based comparative analysis provides a more detailed account of this development. During 2005–2009, research was predominantly oriented towards speech production, phonological development, language impairment, diagnosis, intelligibility, and the clinical characteristics of children with developmental or communicative difficulties. Clinical and therapeutic settings

dominated the available metadata, while interventions were generally directed towards the assessing and correcting individual speech and language deficits. This initial period therefore reflects a largely clinical-linguistic understanding of preschool communication development.

During 2010–2014, clinical and diagnostic perspectives remained influential, but the field began to incorporate narrative ability, parent–child interaction, shared reading, early literacy, bilingual language development, and dynamic assessment more visibly. This period represents an important transitional stage in which attention extended from the production and assessment of individual linguistic forms towards discourse organization and socially mediated language use. The increasing prominence of narrative production and adult-supported communication corresponds with empirical evidence that dialogic reading, narrative intervention, and maternal elicitation can contribute to children’s oral narrative development and communicative participation (Lever & Sénéchal, 2011; Melzi et al., 2011; Peña et al., 2014; Vandewalle et al., 2012).

The 2015–2019 period was characterized by further thematic and contextual diversification. Bilingualism, multilingual language development, narrative assessment, shared reading, family involvement, and classroom-based support became increasingly visible. Research therefore began to position preschool speech and language development within broader family, educational, and culturally diverse contexts. However, clinical and psycholinguistic approaches remained prominent, and the integration of culturally grounded storytelling practices was still limited.

During 2020–2025, narrative competence, storytelling, literacy, multilingualism, culturally responsive practices, parent- and teacher-mediated intervention, game-based approaches, and curriculum-related language support became more prominent. This development does not indicate the disappearance of clinical research. Rather, it demonstrates an expansion of the field towards educational and socially situated contexts in which communication is understood as a participatory activity supported by teachers, parents, peers, narratives, and classroom practices.

Across the four periods, the most important change was therefore a gradual transition from the measurement, diagnosis, and correction of speech-language deficits towards increasing attention to extended discourse, communicative interaction, educational participation, and linguistic and cultural diversity. However, this transition remained incomplete. Clinical and therapeutic research continued to represent a substantial component of the literature, while explicitly dialogic, culturally grounded, institutionally documented, and policy-related studies remained comparatively uncommon.

The geographical distribution of publications and the international collaboration network presented in Figures 5 and 9 demonstrate a clear predominance of the United States and the United Kingdom in the field's scientific landscape. This concentration may be associated with the strong institutional position of speech-language pathology and developmental psychology in these countries, comparatively well-developed research infrastructures, and the international visibility of English-language journals indexed in Scopus. The United States occupied the most central position in the collaboration network, while the United Kingdom functioned as an important secondary center connecting several national research communities.

However, the study also reveals limited geographical diversification. Countries from Central Asia, Latin America, and large parts of Africa remain weakly represented in both publication output and international collaboration networks. This imbalance indicates an unequal global distribution of scientific visibility. It suggests that existing international literature may not adequately represent culturally and linguistically diverse understandings of preschool communication, language impairment, and educational support. The identified structure should also be interpreted in relation to the study's restriction to English-language publications indexed in Scopus, which may have reduced the visibility of relevant research published in national or regional outlets.

Another important finding concerns the intellectual structure of the field identified through source co-citation analysis. The network presented in Figure 8 demonstrates that the scientific foundations of research on dialogic speech development are shaped primarily by journals associated with speech-language pathology, developmental psychology, communication disorders, clinical linguistics, and literacy. Journals such as the *Journal of Speech, Language, and Hearing Research*, *Journal of Communication Disorders*, and *Clinical Linguistics & Phonetics* occupy central positions within the co-citation structure, confirming the continuing influence of clinical and psycholinguistic paradigms.

These disciplinary traditions have contributed substantially to understanding the diagnosis, assessment, and treatment of speech and language difficulties. At the same time, their predominance may partly explain why sociocultural pedagogy, indigenous knowledge, folklore studies, and culturally responsive education remain weakly integrated into the field's intellectual structure. Preschool communication difficulties continue to be conceptualized largely through frameworks emphasizing impairment, standardized assessment, measurable linguistic outcomes, and therapeutic intervention.

The period-based analysis also revealed limitations in methodological and institutional reporting. Information on the number and types of participating schools or preschools, and the total number of children, was not consistently available in titles, abstracts, or keywords. Consequently, the present study could identify reported settings and participant characteristics but could not reliably calculate the cumulative number of schools and children represented in all 190 publications. This distinction is methodologically important because Scopus bibliographic metadata are designed primarily for publication indexing and do not provide the detailed sample information typically extracted in a full-text systematic review.

Theoretical orientations were similarly reported with limited consistency. Although many publications could be interpreted as compatible with sociocultural, interactionist, emergent-literacy, cognitive-linguistic, family-centered, or social-constructivist perspectives, a theoretical orientation was coded only when it was explicitly stated in the bibliographic metadata. The reported theoretical patterns, therefore, indicate the visibility of theories in titles, abstracts, and keywords rather than providing a comprehensive classification of every conceptual framework applied across the articles. This cautious approach reduces the risk of attributing theoretical positions that the original authors did not explicitly claim.

Policy-related indicators also remained limited across all four periods. References to inclusion, educational access, multilingual provision, curriculum, and early intervention became more visible in recent publications, particularly during 2020–2025. Nevertheless, direct analysis of national policies, implementation frameworks, funding mechanisms, or policy outcomes was uncommon. The relative separation between empirical research and policy analysis suggests that evidence on dialogic speech and preschool language intervention has not yet been systematically integrated into educational governance and national speech-language support systems.

The findings concerning Research Question 5 reveal an especially important distinction between the expansion of general narrative research and the representation of culturally grounded storytelling traditions. Narrative-related indicators appeared in 51 publications, representing 26.8% of the dataset, while storytelling-related indicators were identified in 37 publications, accounting for 19.5%. Both research directions became more visible over time, especially during 2020–2025. However, this expansion did not produce a comparable increase in research examining storytelling practices grounded in particular cultural or linguistic traditions.

Only ten publications, representing 5.3% of the dataset, contained broader cultural, cross-cultural, transcultural, sociocultural, or cultural-heritage indicators. Manual examination of these records identified only two publications, or 1.1% of the complete dataset, that explicitly connected storytelling with a particular cultural or linguistic heritage. Flynn (2021) examined storytelling as a transcultural, translanguaging, dialogic practice in multilingual preschool story circles. Melzi et al. (2023) investigated an oral storytelling program grounded in the cultural-heritage practices of Spanish-speaking communities. These studies demonstrate how culturally situated storytelling can support dialogic participation, multilingual interaction, teacher language input, and children's narrative development. However, neither study investigated folk tales as a distinct traditional narrative genre.

The absence of the terms “folk tale,” “folktale,” “folklore,” and “traditional tale” from the titles, abstracts, author keywords, and index keywords of the 190 publications is particularly significant. It indicates that the expansion of narrative-oriented research primarily involved narrative assessment, story production, story retelling, shared reading, and classroom storytelling rather than the systematic investigation of traditional narrative resources. Similarly, although two publications referred to Kazakhstan or Kazakh-speaking preschool children, they focused on game technology, speech games, and word-formation development rather than Kazakh folk tales or culturally grounded narrative intervention.

Several factors may explain the limited visibility of traditional storytelling. Contemporary speech-language research frequently prioritizes standardized assessment instruments, measurable linguistic outcomes, and intervention models intended to be applicable across diverse populations. Culturally grounded storytelling practices, by contrast, are context-dependent and embedded in particular linguistic, historical, and community traditions. They may therefore be less likely to appear in internationally indexed journals or to be represented through standardized bibliographic terminology.

Nevertheless, culturally grounded storytelling may offer important pedagogical possibilities for preschool children with speech and language underdevelopment. Traditional narratives incorporate repeated linguistic structures, sequential organization, role-based communication, emotional engagement, questioning, turn-taking, and collaborative meaning-making. These characteristics potentially make them suitable contexts for supporting vocabulary, narrative coherence, verbal participation, and reciprocal communication. Their educational effectiveness,

however, should be established through empirical intervention research rather than inferred solely from their limited representation in the literature.

The findings also have implications for inclusive preschool education. The disciplinary and thematic distributions demonstrate that dialogic speech development is increasingly examined across educational, psychological, family, and communicative contexts rather than exclusively within medical frameworks. This development corresponds with a broader movement towards understanding communication as a condition of children's participation and inclusion. From this perspective, supporting dialogic speech involves not only correcting isolated linguistic difficulties but also creating meaningful environments in which children can initiate interaction, respond to others, negotiate meanings, and participate in shared narratives.

Future research should empirically evaluate culturally grounded storytelling through controlled, longitudinal, and classroom-based intervention studies conducted in diverse linguistic and educational settings. These studies should report participant characteristics, sample sizes, participating institutions, intervention duration, implementation procedures, theoretical foundations, and measurable linguistic and interactional outcomes. In particular, research is needed to determine whether Kazakh folk tales can effectively support vocabulary development, turn-taking, narrative coherence, question answering, and collaborative meaning-making among preschool children with speech and language underdevelopment.

The connection between research, educational practice, and policy also requires further development. Future studies should examine how evidence-based narrative and dialogic interventions can be incorporated into preschool curricula, teacher preparation, inclusive education programs, and national speech-language support frameworks. Greater participation by researchers from currently underrepresented regions would also strengthen the field's geographical, linguistic, and cultural representativeness.

Overall, the findings demonstrate a gradual transition from a predominantly clinical and diagnostic research orientation towards a broader agenda encompassing narrative competence, storytelling, literacy, multilingualism, family participation, and classroom-based intervention. Nevertheless, the field continues to be shaped primarily by clinical and psycholinguistic paradigms, while culturally grounded storytelling, institutional reporting, policy engagement, and research from underrepresented regions remain limited. Dialogic speech development should therefore be

understood not only as the acquisition of linguistic competence but also as a socially, educationally, and culturally situated form of communicative participation.

Conclusion

The conducted bibliometric analysis, based on a PRISMA-guided selection procedure and covering the 2005–2025 period, revealed the progressive development of an interdisciplinary research field concerned with dialogic speech, oral language, narrative competence, and communication among preschool children with speech and language underdevelopment. The final corpus of 190 Scopus-indexed publications integrated perspectives from speech-language pathology, developmental psychology, education, linguistics, literacy, and communication studies. The analysis provided evidence of sustained scholarly attention while simultaneously revealing fluctuations in publication activity and important thematic, geographical, methodological, and cultural gaps.

The comparison of four consecutive periods identified a gradual transformation in the field. During 2005–2009, research was predominantly focused on speech production, phonological development, language impairment, intelligibility, diagnosis, and clinical intervention. During 2010–2014, narrative ability, parent–child interaction, shared reading, bilingual development, and dynamic assessment became more visible. The 2015–2019 period was characterized by further diversification through increased attention to multilingualism, narrative assessment, family participation, and classroom-based language support. Finally, during 2020–2025, storytelling, literacy, culturally responsive practices, game-based approaches, parent- and teacher-mediated intervention, and curriculum-related language support gained greater prominence. Thus, the field gradually expanded from a predominantly clinical and deficit-oriented research domain towards a broader understanding of communication as a narrative, interactional, educational, and socially situated process.

Nevertheless, clinical and psycholinguistic paradigms continued to shape the intellectual structure of the field. The source co-citation analysis confirmed the central role of journals associated with speech-language pathology, communication disorders, developmental psychology, clinical linguistics, and literacy. Furthermore, the geographical and collaboration analyses revealed the predominance of the United States and the United Kingdom. In contrast, Central Asia, Latin America, Africa, and other non-Western regions remained comparatively underrepresented. This

concentration may limit the cultural, linguistic, and educational diversity represented within the international evidence base.

The analysis also identified methodological and reporting gaps that restrict the interpretation of the available bibliographic evidence. Information concerning theoretical foundations, participant numbers, participating schools or preschools, intervention procedures, and institutional settings was not consistently reported in titles, abstracts, and keywords. Consequently, it was not possible to calculate reliably the cumulative number of institutions and participants represented across all 190 publications. Similarly, policy-related indicators remained limited, and direct engagement with national policy, educational governance, implementation frameworks, and speech-language support systems was uncommon.

Regarding Research Question 5, the findings revealed a substantial gap between the growing visibility of general narrative research and the limited representation of culturally grounded storytelling traditions. Narrative-related indicators were identified in 51 publications (26.8%), while storytelling-related indicators appeared in 37 publications (19.5%). However, only 10 publications (5.3%) included broader cultural indicators, and only 2 (1.1%) explicitly connected storytelling to a particular cultural or linguistic heritage. No publication explicitly identified folk tales, folktales, folklore, or traditional tales as its research focus. Moreover, the two publications concerning Kazakhstan or Kazakh-speaking preschool children examined game technology, speech games, and word-formation development rather than Kazakh folk narratives.

Despite these limitations, the identified growth of narrative, storytelling, multilingual, family-mediated, and classroom-based approaches indicates that the field is becoming increasingly receptive to broader educational and sociocultural perspectives. Culturally grounded storytelling may represent a potentially valuable context for supporting vocabulary development, turn-taking, question answering, narrative coherence, verbal participation, and collaborative meaning-making. However, its educational effectiveness cannot be established through bibliometric evidence alone and requires systematic empirical investigation.

Future research should therefore be directed towards addressing the identified conceptual, methodological, geographical, and cultural gaps. Priorities should include conducting controlled, longitudinal, and classroom-based studies with clearly reported sample sizes and institutional settings; developing transparent intervention protocols specifying content, duration, intensity, and implementation procedures; applying validated measures of linguistic, narrative, and dialogic

outcomes; evaluating the maintenance and transfer of acquired communication skills to natural preschool environments; and investigating the influence of linguistic, cultural, family, and educational factors on intervention outcomes. Particular attention should be devoted to examining whether Kazakh folk tales and other culturally grounded narrative traditions can serve as effective resources for supporting dialogic speech development among preschool children with speech and language underdevelopment.

Overall, the present study maps the temporal, conceptual, intellectual, social, and geographical development of the field and identifies directions requiring further investigation. Its findings support an understanding of dialogic speech development not solely as the correction of individual linguistic difficulties but as a socially mediated, educationally supported, and culturally situated form of communicative participation. Strengthening the connection among empirical research, culturally responsive practice, inclusive preschool education, and policy represents an important priority for the future development of this field.

Research Limitations

Several limitations of the present study should be considered when interpreting the findings. First, the analysis was conducted exclusively using the Scopus database. Although Scopus provides broad coverage of high-quality peer-reviewed publications, relevant studies indexed in other international or regional databases may not have been captured.

Second, the bibliometric analysis included only English-language publications and restricted the dataset to peer-reviewed journal articles published between 2005 and 2025. Consequently, books, conference proceedings, dissertations, and other forms of grey literature were excluded from the analysis, potentially limiting the representation of emerging or locally oriented research directions. Third, bibliometric mapping primarily relies on quantitative indicators such as publication frequency, citation relationships, and keyword co-occurrence. Although this approach provides valuable insights into the structure and evolution of a research field, it does not permit direct evaluation of the methodological quality, the effectiveness of interventions, or the educational outcomes reported in individual studies.

The selected threshold values used in the keyword co-occurrence analysis, while necessary to produce interpretable bibliometric maps, may have reduced the visibility of less frequently occurring concepts, including culturally specific and folklore-based educational approaches. As a

result, certain emerging thematic directions may remain insufficiently represented within the bibliometric networks.

The analysis of culturally grounded storytelling was based on titles, abstracts, author keywords, and index keywords rather than the full texts of all 190 publications. Therefore, some studies may have employed folk tales or culturally specific narrative materials without explicitly mentioning them in their searchable bibliographic metadata. The finding of no folk-tale or folklore studies should consequently be interpreted as an absence of explicitly identifiable evidence in the analyzed metadata rather than definitive proof that such materials were never used in any included publication.

Despite these limitations, the present study provides a comprehensive and systematic overview of the scientific landscape related to dialogic speech development in preschool children, identifies major conceptual trends and research gaps, and offers a foundation for future bibliometric and empirical investigations.

Conflict of Interest

The authors declare no conflict of interest regarding the publication of this study.

References

- Brodin, J., & Renblad, K. (2020). Improvement of preschool children's speech and language skills. *Early Child Development and Care*, 190(14), 2205–2213. <https://doi.org/10.1080/03004430.2018.1564917>
- Dadon Jorno, A., Fichman, S., Walters, J., & Altman, C. (2025). Bilingual narrative intervention among Russian–Hebrew bilingual preschool children with developmental language disorder. *Applied Psycholinguistics*, 46, Article e8, 1–31. <https://doi.org/10.1017/S0142716425000062>
- Emelyanova, I. A., Borisova, E. A., Shapovalova, O. E., Karynbaeva, O. V., & Vorotilkina, I. M. (2018). Particularities of speech readiness for schooling in pre-school children having general speech underdevelopment: A social and pedagogical aspect. *Journal of Social Studies Education Research*, 9(1), 89–105. <https://jsser.org/index.php/jsser/article/view/237>
- Flynn, E. E. (2021). “Rapunzel, Rapunzel, lanza tu pelo”: Storytelling in a transcultural, translanguaging dialogic exchange. *Reading Research Quarterly*, 56(4), 643–658. <https://doi.org/10.1002/rrq.367>
- Hustad, K. C., Mahr, T. J., Natzke, P., & Rathouz, P. J. (2021). Speech development between 30 and 119 months in typical children I: Intelligibility growth curves for single-word and

- multiword productions. *Journal of Speech, Language, and Hearing Research*, 64(10), 3707–3719. https://doi.org/10.1044/2021_JSLHR-21-00142
- Kılıç, S., & Büyüktaşkapu Soydan, S. (2022). The Effect of the Therapy Program with Stories on the Emotional Management Skills of Children with Speech and Language Disorders: Therapy Program with Stories. *Theory and Practice in Child Development*, 2(2), 1–24. <https://doi.org/10.46303/tpicd.2022.14>
- Lever, R., & Sénéchal, M. (2011). Discussing stories: On how a dialogic reading intervention improves kindergartners' oral narrative construction. *Journal of Experimental Child Psychology*, 108(1), 1–24. <https://doi.org/10.1016/j.jecp.2010.07.002>
- Melzi, G., Schick, A. R., & Kennedy, J. L. (2011). Narrative elaboration and participation: Two dimensions of maternal elicitation style. *Child Development*, 82(4), 1282–1296. <https://doi.org/10.1111/j.1467-8624.2011.01600.x>
- Melzi, G., Schick, A. R., & Wuest, C. (2023). Stories beyond books: Teacher storytelling supports children's literacy skills. *Early Education and Development*, 34(2), 485–505. <https://doi.org/10.1080/10409289.2021.2024749>
- Noel, M., Peterson, C., & Jesso, B. (2008). The relationship of parenting stress and child temperament to language development among economically disadvantaged preschoolers. *Journal of Child Language*, 35(4), 823–843. <https://doi.org/10.1017/S0305000908008805>
- Odularu, O., Sone, E., & Puzi, M. (2024). Globalisation Perspective of Libraries as Curators of Oral Tradition and Storytelling Activities. *Journal of Culture and Values in Education*, 7(2), 136-156. <https://doi.org/10.46303/jcve.2024.16>
- Olalowo, I., & Babalola, A. (2024). A Tale of Two Childhoods: Exploring Holistic Development of Preschoolers in a Rural and Urban Community. *Theory and Practice in Child Development*, 4(1), 57–75. <https://doi.org/10.46303/tpicd.2024.4>
- Özcan, M., Dereobalı, N., & Başokçu, T. O. (2022). Turkish adaptation of the narrative assessment scale for preschool children. *Collegium Antropologicum*, 46(2), 149–158. <https://doi.org/10.5671/ca.46.2.10>
- 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, Article n71. <https://doi.org/10.1136/bmj.n71>
- Peña, E. D., Gillam, R. B., & Bedore, L. M. (2014). Dynamic assessment of narrative ability in English accurately identifies language impairment in English language learners. *Journal of Speech, Language, and Hearing Research*, 57(6), 2208–2220. https://doi.org/10.1044/2014_JSLHR-L-13-0151

- Ryskulbek, D., Moldagali, B., Shoibekova, G., Aulbekova, Z., & Ibraymova, L. (2025). The role of TV programmes in developing children's language skills. *Journal of Culture and Values in Education*, 8(2), 124–138. <https://doi.org/10.46303/jcve.2025.22>
- Shehu, B. P. (2019). Peer acceptance in early childhood: Links to socio-economic status and social competence. *Journal of Social Studies Education Research*, 10(4), 176–200. <https://jsser.org/index.php/jsser/article/view/1566>
- van Eck, N. J., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics*, 84(2), 523–538. <https://doi.org/10.1007/s11192-009-0146-3>
- Vandewalle, E., Boets, B., Boons, T., Ghesquière, P., & Zink, I. (2012). Oral language and narrative skills in children with specific language impairment with and without literacy delay: A three-year longitudinal study. *Research in Developmental Disabilities*, 33(6), 1857–1870. <https://doi.org/10.1016/j.ridd.2012.05.004>
- Wray, C., Saunders, N., McGuire, R., Cousins, G., & Norbury, C. F. (2017). Gesture production in language impairment: It's quality, not quantity, that matters. *Journal of Speech, Language, and Hearing Research*, 60(4), 969–982. https://doi.org/10.1044/2016_JSLHR-L-16-0141
- Xhani, D., Kulluri, E. & Malësija, M. (2024). Technology Use and Its Effects on the Development of Communication Skills among Children in Albania, *Journal of Social Studies Education Research*, 15(5), 148-168. <https://jsser.org/index.php/jsser/article/view/4994/712>