

Overview Study on Language Development for Preschool Children on Scopus Database



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ABSTRACT: This study aims to conduct an overview study of language development for preschool children based on the Scopus database. We apply the PRISMA model to select academic journals. The authors analyzed information such as the number of research papers, countries, authors, citations, keywords, and issues of interest to researchers regarding language development for preschool children. The findings revealed a significant increase in the number of articles on language development for preschool children in the Scopus database between 2021 and 2022, with a substantial proportion originating from American research papers. Researchers have been interested in many issues in the field of language development for preschool children, including updated issues such as the problem of delayed language development and the impact of information and communication technology on children.... With the findings from this article, researchers, preschool teachers, parents and people interested in education can grasp important information about language development for preschool children, thereby orienting research or implementing educational goals for language development for preschool children in the future.

KEYWORDS: overview study, PRISMA, language development, preschoolers, Scopus

1. INTRODUCTION

Language development plays an important role in preschool education. Language development educational activities for preschool children contribute to creating a solid foundation for children to learn throughout life, interact with society and prepare children for the next ages (Dickinson & Porche, 2011). Recognizing the importance of language development in preschool education, the Ministry of Education and Training of Vietnam identifies language development as one of the important goals of preschool education (MOET, 2021). Research on language development for preschool children has received attention from many domestic and foreign researchers. To give readers an overview, the authors provide an overview of language development for preschool children on the Scopus database. This is a premise for future research to have an overview, thereby seeing research trends in the world and having appropriate directions in the future.

2. RESEARCH METHODS

The article uses the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) methodology. The research team used Scopus as the primary search source for data collection. Scopus offers the ability to search for globally recognized quality research papers. In this way, the research is accurate and reliable in evaluating and synthesizing information from search sources on Scopus.

Criteria for selecting articles for review and analysis are: 1) Search term: language development for preschool children; 2) Search scope: article title. To be included in the final list, articles need to meet the following requirements: 1) Language: English; 2) Accessibility: full-text accessible article; 3) Classification: The article must be a research paper published in scientific journals; Articles with one of the following elements will be excluded from the list: 1) The article is not written in English; 2) The full text of the article is not accessible; 3) Review articles, book chapters, and conference papers...

Figure 1 depicts the flow of information through the different stages for system assessment and the use of the PRISMA method. With a total of 21,886 search results within the scope of abstract, title, and key articles found; the authors automatically remove and only select articles with titles related to language development for preschool children. As a result, there were 144 articles with suitable titles. Of these 144 articles, 11 articles were excluded because they were not written in English; 15 articles were excluded because they were not journal articles; 87 articles were not open access. Finally, 31 articles were included in this study for analysis and evaluation.

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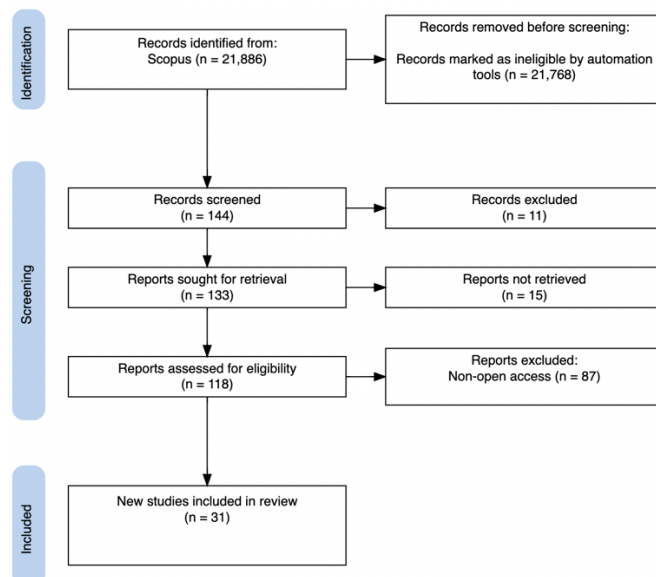


Figure 1: Diagram illustrating the movement of information through the different stages of a systematic review

3. RESULTS AND DISCUSSION

3.1 Change in the number of research articles on language development for preschool children

Diagram on figure 2 shows an overview of the distribution of documents on language development for preschool children. With a total of 31 analyzed articles, the number of articles was unevenly distributed over time. 2022 and 2023 are the two years with the largest number of articles on language development for preschool children (total of 12 articles/31 articles). The diagram also shows that, after 2019, the number of articles on language development for preschool children increased much higher than in the previous period. The distribution of the specific number of years considered within the scope of the analyzed documents is as follows:

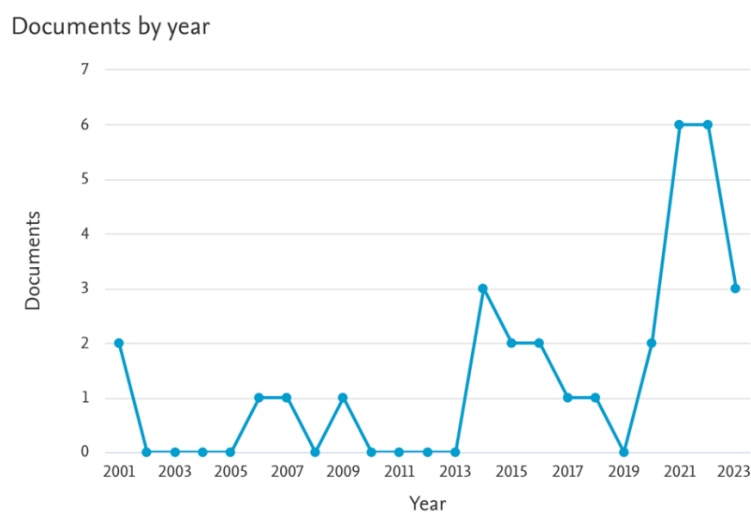


Figure 2: Number of articles published by year from 2001 to 2023

3.2. Famous journals, authors, and articles in language development for preschool children

Table 1. Data table of articles on language development for preschool children

Name of journal	Number of articles
Children	3
Codas	2
Journal Of Applied Developmental Psychology	2
BMC Psychiatry	1
BMJ	1
British Medical Journal	1
Child Care Health And Development	1

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Child Development	1
Cleft Palate Craniofacial Journal	1
Clinical Archives Of Communication Disorders	1
Cognitive Development	1
Early Child Development And Care	1
Early Childhood Research Quarterly	1
European Journal Of Educational Research	1
Frontiers In Psychology	1
International Journal Of Bilingualism	1
Jmir Research Protocols	1
Journal Of Deaf Studies And Deaf Education	1
Journal Of Early Childhood Literacy	1
Journal Of Speech Language And Hearing Research	1
Journal Of Universal Computer Science	1
Korean Journal Of Pediatrics	1
Mediterranean Journal Of Social Sciences	1
Paideia	1
Plos One	1
Revista De Ciencias Sociales	1
Scandinavian Journal Of Educational Research	1

According to Table 1, it is evident that *Children* has the highest number of contributions to the field of language development for preschool children, with a total of three articles. For *Codas* and *Journal Of Applied Developmental Psychology*, each journal contributed 2 articles. For the remaining journals, each journal contributed 1 article. This also shows that there are many journals interested in language development for preschool children, especially journals related to children. However, there is no specialized journal with strong research on language development for preschool children.

Research shows that the two groups of authors with the highest number of posts are Grøver Vibeke et al. and Rydland Veslemøy et al. (each group of authors has two articles). For other authors, each author/author group posts 1 article.

From table 2, we can see that the research paper *Effects of iron supplementation and anthelmintic treatment on motor and language development of preschool children in Zanzibar: Double blind, placebo controlled study* by the author group Rebecca J Stoltzfus et al. was the most cited by scientists. This was followed by the study *Dual language and literacy development of Spanish-speaking preschool children* by Páez M. Mariela et al. Most of the highly cited research articles are articles published before 2015. Among the studies published in 2023, there is the study *Associations Between Social-Emotional and Language Development in Preschool Children - Results from a Study Testing the Rationale for an Intervention* by Kalland Mirjam and Linnavalli Tanja received the most citations (3 times). In addition, seven articles received no citations, indicating that the topics addressed in these 7 studies received limited attention.

Table 2. Top articles with the highest number of citations on the database related to language development for preschool children

Name of the research article	Number of citations
Effects of iron supplementation and anthelmintic treatment on motor and language development of preschool children in Zanzibar: Double blind, placebo controlled study	214
Dual language and literacy development of Spanish-speaking preschool children	153
Spoken language development in oral preschool children with permanent childhood deafness	80
Sleep Disturbance and Expressive Language Development in Preschool-Age Children With Down Syndrome	50
Preschool language development among children of adolescent mothers	44

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3.3. Keywords used in the Scopus database when discussing language development for preschool children

Figure 3 shows a map visualizing research trends using Vosviewer software on language development for preschool children. Mapping results show 2 key clusters for research topics: The first cluster (red with 12 elements) is article, child, controlled study, female, human, human experiment, language, language development, major clinical study, male, preschool, preschool child and the second cluster (blue with 3 elements): child development, child, preschool and humans.

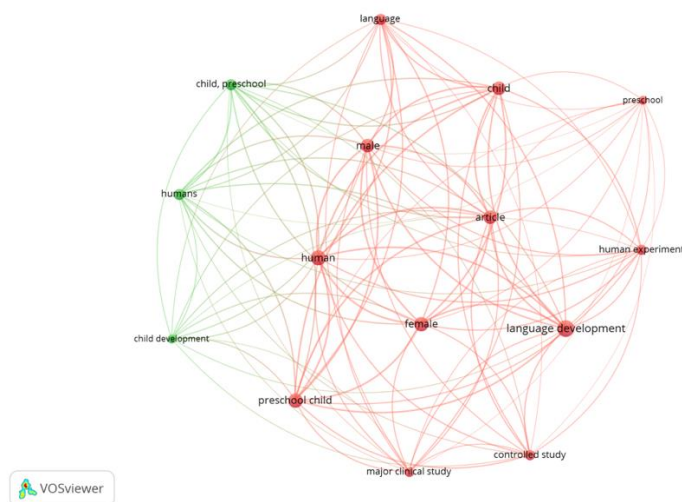


Figure 3: Map visualizing co-occurring keywords in studies

3.4. Countries researching language development for preschool children

Figure 4 shows that the United States is the country with the most research on language development for preschool children (9 articles). Next are Brazil and Norway (each country has 3 articles). The next countries are Finland, Germany, South Africa, England (each country has 2 articles). Other countries each contributed 1 article. The total number of countries with research articles on language development for preschool children on the Scopus database is 25 countries. Vietnam has contributed an article in this field.

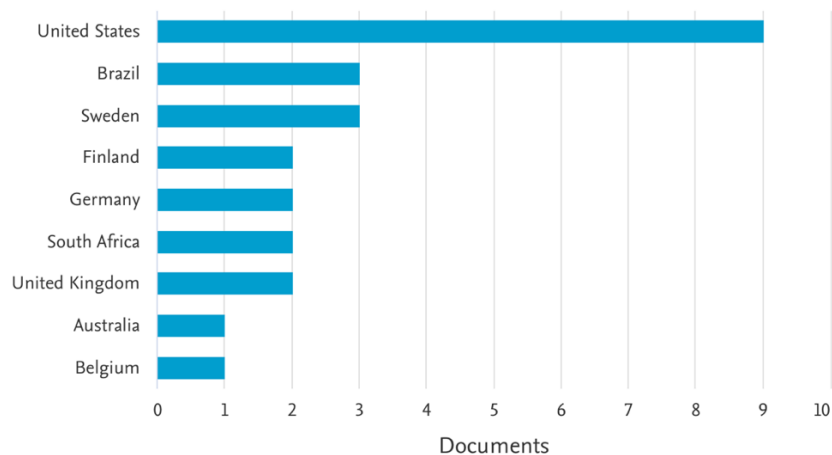


Figure 4: Chart comparing the number of research articles on language development for preschool children across countries

3.5. Researchers' concerns about language development for preschool children

Through research, it can be seen that the main issues in language development for preschool children that the authors are interested in are: The relationship between language development and physiological/psychological issues/other skills of children; language delay in preschool children; language development for multilingual preschool children; the impact of technology on language development for preschool children; assessment and intervention to support language development for preschool children; methods to optimize language development for preschool children.

Research shows that there are 12 studies interested in the relationship between language development and children's physiological, psychological, and other skills. Among the 31 studies analyzed and evaluated, this is the most discussed issue. Among them, some studies are interested in innate factors affecting children's language development such as: Cognitive, motor and language

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development of preschool children with craniofacial microsomia (Collett et al., 2021); Longitudinal development of executive functioning and spoken language skills in preschool-aged children with cochlear implants (Kronenberger et al., 2020); Sleep disturbance and expressive language development in preschool-age children with Down syndrome (Edgin et al., 2015); Spoken language development in oral preschool children with permanent childhood deafness (Sarant et al., 2009); Preschool language development of children born to women with an opioid use disorder (Kim et al., 2021); Preschool language development among children of adolescent mothers (Oxford & Spieker, 2006). Additionally, researchers have examined the relationship between language and psychological issues, as well as the skills of preschool children. Peyre, Hugo et al. (2016) have studied the relationship between early language skills and the development of inattention/hyperactivity symptoms during the preschool period. (Peyre et al., 2016); Eylül Turan và Bert De Smedt (2023) have analyzed the association between mathematical language and mathematical abilities of preschool children and confirmed that preschool children's general language skills are strongly correlated with their success in the field of mathematics (Turan & De Smedt, 2023); Kalland Mirjam và Linnavalli Tanja (2023) have been interested in the associations between social-emotional and language development in 3 to 5-year-old children in early childhood education and care (Kalland & Linnavalli, 2023); Pazeto, Talita de Cassia Batista et al. (2014) have been interested in studying the interrelationships between executive functions, oral language and writing in preschool children (Pazeto et al., 2014); Mulé Daniela et al. (2022) have been interested in the issue of correlation between language development and motor skills, physical activity, and leisure time behaviour in preschool-aged children. Sedentary behavior has a negative impact on children's physical and mental health. A sedentary lifestyle is negatively correlated with selected tests of language development in preschool age (Mulé et al., 2022); Moretti, Thaís Cristina da Freiria et al. (2017) have studied the relationship between preschool children's vocabulary and socio-educational variables (Moretti et al., 2017).

The issue of delayed language development for preschool children has been mentioned in two studies. In particular, Eun Jeong Ji et al. (2014) have studied the developmental profiles of preschool children with delayed language development (Eun et al., 2014). Larco-Pullas Jenny (2023) identifies language delays in 3-4 year old children in Ecuador and affirms the need to implement educational strategies and programs that promote common language development through communication activities, storytelling, language games and vocabulary acquisition (Larco-Pullas, 2023).

There are four studies concerned with the issue of language development for bilingual children. While Páez M. Mariela et al. concluded that on average, children in the bilingual sample performed below average in both English and Spanish when compared to monolingual norms (Páez et al., 2007), research by Payesteh Bitá and Finestack Lizbeth (2021) demonstrated that Persian-English bilingual children attending a Persian immersion preschool develop English at a level comparable to their monolingual English-speaking peers based on the language produced during the retelling of the story (Payesteh & Finestack, 2021). In addition, Grøver Vibeke et al. (2018) and Farangi Mohamad Reza & Mehrpour Saeed (2022) have proposed solutions to support the bilingual development of Norwegian-Turkish bilingual children and Persian ethnic minority children. Grøver Vibeke et al. (2018) asserted that interdependence between languages can be modulated by the quality of classroom conversation and they suggested enhancing children's experiences of using social skills when explaining the meaning of words (Grøver et al., 2018). Farangi Mohamad Reza & Mehrpour Saeed (2022) have studied the association between television platform and social status with Preschool Minority Children's Persian Vocabulary Development. On that basis, the authors concluded that television platforms can compensate for some of the language gap for minority children in families with low socioeconomic status (Farangi & Mehrpour, 2022).

In the context of information and communication technology, technological elements play an important role in the daily lives of preschool children. Therefore, two recent studies discussed the influence of technology on the language development of preschool children. These two studies confirm the positive effects of mobile devices and information technology on the language development of preschool children when used to design language development activities for preschool children and preschool children (Mavi & Erbay, 2021). These study also suggest that the more time children and mothers spend alone using mobile devices, the weaker the children's vocabulary and general language skills (Mustonen et al., 2022). This shows the duality of technology in the language development of preschool children. At the same time, it also emphasizes the role of families and teachers in applying technology in language development for preschool children.

Some studies have addressed the issues of assessment and intervention to support language development in preschool children (Stoltzfus, Chwaya, et al., 2001), (Stoltzfus, Kvalsvig, et al., 2001), (Monteiro-Luperi & Befi-Lopes, 2014), (Xiao et al., 2016), (Coad et al., 2020), (Nordberg & Jacobsson, 2021), (Grøver et al., 2022), (Zeidler et al., 2022).

In addition, researchers have been interested in the issue of methods to improve the effectiveness of language development for preschool children such as read-aloud method and the issue of training teachers on read-aloud method for preschool children (Alatalo & Westlund, 2021) and the problem of teachers' conversation and communication skills during reading to children (Grøver et al., 2022). In addition, there are two studies interested in assessing the competence of preschool teachers to prepare for the language development education process for children in preschool (Ivanova et al., 2015), (Vu & Dinh, 2022).

Thus, it can be seen that when researching language development for preschool children, researchers have been interested in a broad issue, including many aspects of language development for preschool children. These issues inherit existing research and at the same time update contemporary issues such as the impact of information technology on the language development of preschool

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children. These concerns provide a scientific basis for future research and educators to develop educational strategies and interventions to support preschool children's language development.

4. CONCLUSION

In conclusion, the language development in preschool children is a significant concern in Scopus journals. In this study, using the PRISMA method, the authors analyzed and evaluated 31 related studies and analyzed the system in many aspects such as: number of published articles, author, journal, countries involved in researching language development in preschool children, the keyword system in these research articles and the interests of researchers in the field of language development for preschool children. It can be seen that these studies are the basis for future studies to grasp the main research trends and gaps in language development for preschool children using the Scopus data system.

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