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Bibliometric Analysis Using VOSviewers with Publish or Perish of "Academic Reading"

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ABSTRACT

The purpose of this study is to present an overview of the development of research on academic reading. Data were obtained from POP with Google Scholar database from 2014-2024. A total of 776 articles were examined. We evaluated this database using Vosviewer analysis and categorized the articles. The results show that the development of research related to academic reading has fluctuated over the last 10 years. From hundreds to tens and in 2023 and 2024 the number of articles is only in the single digits. The most cited article was in 2014 with 330 citations. Four clusters were found. Ten items make up cluster 1 (academic article, academic reading, academic reading comprehension, academic reading skill, development, metacognitive reading strategy, metacognitive strategy, paper, and reading strategy). Cluster 2 with 8 items (academic achievement, academic performance, academic success, habit, impact, performance, reading habit, relationship). Cluster 3 with 5 items (comprehension, effectiveness, narrative text, reading comprehension, and recount text), and five items make up cluster 4 (academic purpose, academic text, article, practice, and university). We believe that this way will be more effective in summarizing various research results related to academic reading and will be useful in presenting comprehensive facts as an initial basis for conducting similar research.

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1. INTRODUCTION

Each academic discipline encountered in college has its subject matter, approaches, and methodologies. Consequently, completing reading assignments in each discipline requires a unique set of reading skills and strategies. many students have adequate general reading skills but have not learned to adapt to the demands of different academic disciplines. Because they read all assignments in the same way, they do not read as effectively as they could. Academic reading is a unique text that focuses attention on these important discipline-specific reading skills, helping students get more out of what they read. The skill of reading academic texts is called academic reading. Academic reading becomes a foundational skill for students and academics, enabling critical engagement with disciplinary knowledge and facilitating intellectual growth. Research on reading academic texts has been conducted with various research topics. These studies include things that influence students in reading academic texts (Anwar & Sailuddin, 2022; Fitriana, 2018; Inayah & Rahayu, 2015; Martiarini, 2018; Yulia *et al*., 2020), ability to read academic texts (Handayani *et al*., 2018; Susilowati, 2021). Research related to efforts to improve academic text-reading skills (Tauhidah *et al*., 2018).

This research focuses on the development of academic reading research which is a critical component in the development of successful reading in higher education. Many articles have extensively covered the topic of academic reading. We are interested in researching a bibliometric analysis of the term "academic reading" because so far there has been no bibliometric study on academic reading.

2. METHOD

Bibliometrics is the statistical analysis of books, articles, or other publications. The study is mainly based on metadata elements such as author, title, subject, citation, etc., and is associated with scientific publications within a discipline. Mapping science uses bibliometric methods to examine how disciplines, fields, specializations, and individual papers are related.

The bibliometric analysis process in this study involved the following series of steps. 1) Determine the topic or research subject to be analyzed in scientific works or literature. 2) Determining keywords or special terms can be used to filter search results, namely Academic Reading. 3) Searching for literature sources: Conducting a search for relevant literature using the Google Scholar scientific database with the help of Publish or Perish 8. 4) Selecting a sample of publications that match the research topic in POP based on the publication year of the last ten years (2014-2024), document type, namely journals. 5) Extracting data by retrieving relevant bibliometric data from the selected publications, namely title, year of publication, number of citations, and author index. 6) Performing data analysis: first, trend analysis, by analyzing the development of the research topic over time to identify trends and changes in the scientific literature. Secondly, identifying the frequency of citation of a work by other publications, reflects the impact and relevance of the work. 7) Next, with the help of VOSviewer perform Data Visualization: Using graphs or charts to visualize the findings, aids in understanding patterns and trends in bibliometric data. 7) Interpret the results by concluding the findings.

3. RESULTS AND DISCUSSION

3.1. Development of Academic Reading Publication 2014—2024

Table 1 shows the development of "academic reading" research that has been published based on Google Scholar data. The research is in the form of journal articles. Based on the data, it is known that the total documents found during the last 10 years are 776 documents.

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The details of the number of research documents on "academic reading" are in 2014 as many as 42 documents, in 2015 as many as 46 documents, in 2016 as many as 59 documents, in 2017 as many as 77 documents, in 2018 as many as 52 documents, in 2019 as many as 101 documents, in 2020 as many as 104 documents, in 2021 as many as 79 documents, in 2022 as many as 97 documents, and in 2023 as many as 90 documents. Finally, in 2024 there were 29 documents. **Figure 1** shows the development from year to year. The number of articles continued to increase from 2014 to 2017 with 42, 46, 59, and 77 articles respectively. However, in 2018 the publication of journal articles on academic reading decreased from the previous year. 2017 amounted to 77 then in 2018 to 52 articles. Furthermore, the number of articles increased significantly again, from 52 articles in 2018 to 101 articles in 2019, and again experienced an increase in 2020 of 104 articles. In 2021, the number of articles published has decreased from the previous year. However, in 2002 there was an increase, from 79 articles in 2021 to 97 articles in 2022. Unfortunately, in 2023 and 2024 the number of journal articles published related to Academic Reading continued to decline. In 2023 there were 90 articles and in 2024 there were 29 articles.

Table 1. Annual report of publication.

Year	Total of Publication
2014	42
2015	46
2016	59
2017	77
2018	52
2019	101
2020	104
2021	79
2022	97
2023	90
2024	29
Total	776

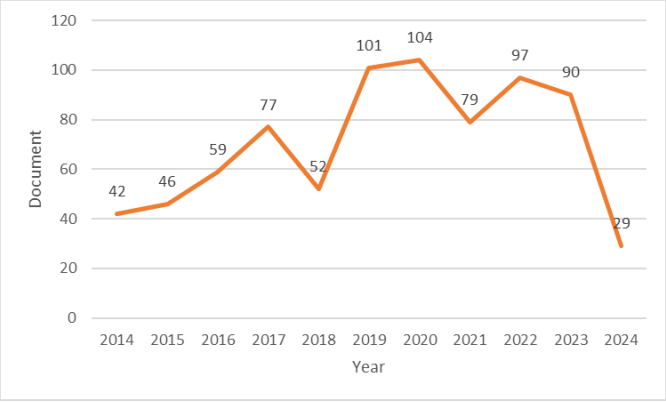

Figure 1. Research developments regarding "Academic Reading".

3.2. Trend of Academic Reading Research Citation 2014—2024

Table 2 shows the difference academic reading articles with the most citations. From the 776 articles, 20 articles were selected that had the most citations. The most cited article is the article Dumont et al. published in 2014. There were 330 citations for the article and the citations per year were 33. This article discusses how parental involvement affects students' reading ability.

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Table 2. Difference academic reading articles with the most citations.

No.	Cites	Title	Year	Cites Per Year	Cites Per Author	Ref
1	330	Quality of parental homework involvement: Predictors and reciprocal relations with academic functioning in the reading domain.	2014	33.00	83	Dumont *et al*. (2014)
2	254	Undergraduates' academic reading format preferences and behaviors	2015	28.22	254	Mizrachi (2015)
3	195	The impact of pleasure reading on academic success	2019	39.00	65	Whitten *et al*. (2019)
4	174	Contributions of academic language, perspective taking, and complex reasoning to deep reading comprehension	2016	21.75	35	LaRusso *et al*. (2016)
5	140	The role of metacognitive reading strategies, metacognitive study and learning strategies, and behavioral study and learning strategies in predicting academic …	2017	20.00	35	Chevalier *et al*. (2017)
6	134	Relationships between motor proficiency and academic performance in mathematics and reading in school-aged children and adolescents: A systematic …	2018	22.33	34	Macdonald *et al*. (2018)
7	124	The structural relationship of reading attitude, reading comprehension and academic achievement	2014	12.40	124	Bastug (2014)
8	123	Metacognitive reading and study strategies and academic achievement of university students with and without a history of reading difficulties	2017	17.57	41	Bergey *et al*. (2017)
9	111	Academic growth trajectories of ELLs in NAEP data: The case of fourth-and eighth-grade ELLs and non-ELLs on mathematics and reading tests	2016	13.88	37	Polat *et al*. (2016)
10	110	Reciprocal effects between intrinsic reading motivation and reading competence? A cross-lagged panel model for academic track and nonacademic track students	2016	13.75	37	Schaffner *et al*. (2016)
11	110	Perceptions of teachers about the role of parents in developing reading habits of children to improve their academic performance in schools.	2018	18.33	37	Bano *et al*. (2018)
12	99	Exploring the effects of gamification pedagogy on children's reading: A mixed-method study on academic performance, reading-related mentality and behaviors, and	2021	33.00	50	Li & Chu (2021)
13	97	Assessment of reading difficulty levels in Russian academic texts: Approaches and metrics	2018	16.17	32	Solovyev *et al*. (2016)
14	96	American Sign Language and academic English: Factors influencing the reading of bilingual secondary school deaf and hard of hearing students	2016	12.00	48	Scott & Hoffmeister (2016)

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Table 2 (Continue). Difference academic reading articles with the most citations.

No.	Cites	Title	Year	Cites Per Year	Cites Per Author	Ref
15	84	School academic language demands for understanding functional relationships: A design research project on the role of language in reading and learning	2017	12.00	42	Prediger & Zindel (2017)
16	82	Reading demands in secondary school: Does the linguistic complexity of textbooks increase with grade level and the academic orientation of the school track?	2018	13.67	21	Berendes *et al.* (2018)
17	79	Home scholarly culture, book selection reason, and academic performance: Pathways to book reading interest among secondary school students	2021	26.33	26	Vuong *et al.* (2021)
18	77	Experimental effects of Word Generation on vocabulary, academic language, perspective taking, and reading comprehension in high-poverty schools	2019	15.40	15	Jones *et al.* (2019)
19	70	'I read, I don't understand': refugees coping with academic reading	2015	7.78	70	Hirano (2015)
20	66	The relationship between English reading proficiency and academic achievement of first-year science and mathematics students in a multilingual context	2019	13.20	33	Stoffelsma & Spooren (2019)

3.3. Visualization of Research Data Mapping

The data was further analyzed using VOSviewer (see **Figures 2 – 4**). Four clusters were found. Ten items formed cluster 1, namely academic article, academic reading, academic reading comprehension, academic reading skill, development, metacognitive reading strategy, metacognitive strategy, paper, and reading strategy. Cluster 2 with 8 items includes academic achievement, academic performance, academic success, habit, impact, performance, reading habit, and relationship. Cluster 3 with 5 items, namely comprehension, effectiveness, narrative text, reading comprehension, and story text. The five items that make up cluster 4 include academic purpose, academic text, article, practice, and university.

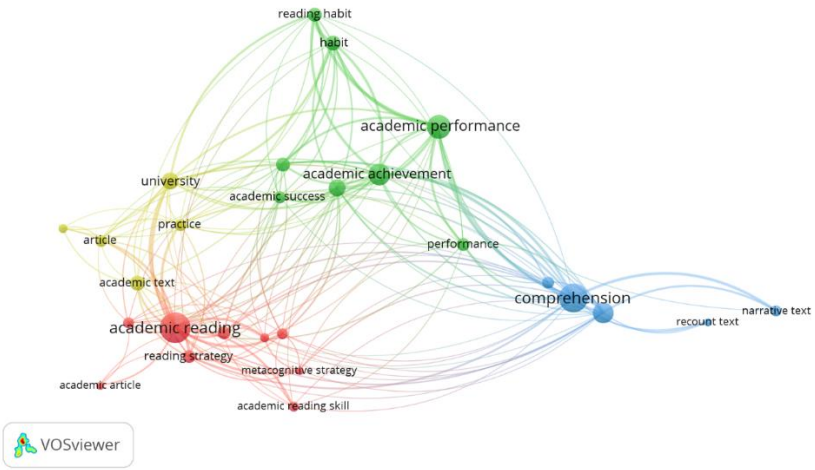

Figure 2. Network visualization based on co-occurrence of terms.

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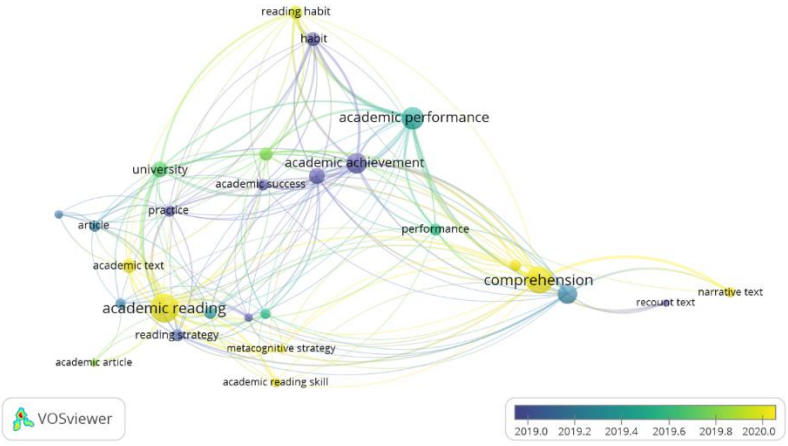

Figure 3. Overlay visualization based on co-occurrence of terms.

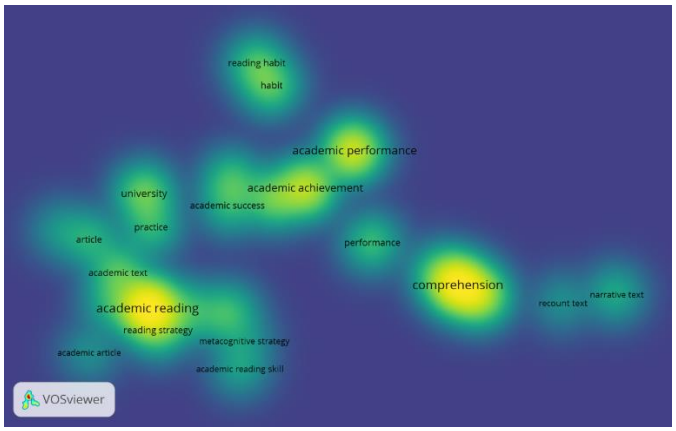

Figure 4. Density visualization based on co-occurrence of terms.

4. CONCLUSION

This study reviewed 776 articles with themes related to "academic reading". These 776 articles were extracted from a larger original set of 787 articles obtained from preliminary results. The publication rate of articles on academic reading fluctuated. The publication of articles experienced the highest increase in 2020 with a total of 104 articles and in 2024 had a small number, namely 29 articles. The most cited article about academic reading is the article written by Dumont *et al*. (2014) entitled "Quality of Parental Homework Involvement: Predictors and Reciprocal Relations with academic functioning in the Reading Domain".

5. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. The authors confirmed that the paper was free of plagiarism.

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