## Social, Humanities, and Educational Studies

SHEs: Conference Series 8 (4) (2025) 224-235

Trends and Research Development of Differentiated Learning in Reading Improvement: a Biblometric Analysis

## Lina Adi Perwitasari, Retno Winarni, Septi Yulisetiani

Universitas Sebelas Maret adilina399@student.uns.ac.id

**Article History** 

accepted 1/8/2025

approved 1/9/2025

published 1/10/2025

### **Abstract**

The problem of differentiated learning in improving reading ability is increasingly complex along with the diversity of student needs and the development of educational technology. Although there has been a lot of research in this field, there has been no biliometric study that systematically maps the development of the research. This study aims to analyze the trends and developments of differentiated learning research in the context of improving reading ability through a bibliometric approach. The research method used bibliometric analysis of 1,459 documents from the Scopus database for the 2014-2024 period, including analysis of publication trends, collaboration patterns, and mapping research topics using VOSviewer. The results of the study revealed three main findings: (1) there was a significant increase in the number of publications, especially after 2019, reaching more than 250 publications in 2024; (2) the collaboration pattern shows the dominance of institutions from the United States (400 publications), followed by China and Germany (125 publications each); (3) Keyword co-occurrence analysis reveals the evolution of research focus from conventional approaches to technology integration and learning innovation, with "differentiated instruction" as the central node that is connected to various aspects of reading learning. The implications of this research lie in understanding research trends and patterns that can help educators develop more effective differentiated learning approaches.

Keywords: Differentiated Learning, Reading, Bibliometrics

#### **Abstrak**

Problematika pembelajaran berdiferensiasi dalam peningkatan kemampuan membaca semakin kompleks seiring dengan keberagaman kebutuhan peserta didik dan perkembangan teknologi pendidikan. Meski telah banyak penelitian dalam bidang ini, belum ada kajian biliometrik yang memetakan perkembangan penelitiannya secara sistematis. Penelitian ini bertujuan untuk menganalisis tren dan perkembangan riset pembelajaran berdiferensiasi dalam konteks peningkatan kemampuan membaca melalui pendekatan bibliometrik. Metode penelitian menggunakan analisis bibliometrik terhadap 1,459 dokumen dari database Scopus periode 2014-2024, mencakup analisis tren publikasi, pola kolaborasi, dan pemetaan topik penelitian menggunakan VOSviewer. Hasil penelitian mengungkapkan tiga temuan utama: (1) terdapat peningkatan signifikan dalam jumlah publikasi, terutama pasca 2019, mencapai lebih dari 250 publikasi pada 2024; (2) pola kolaborasi menunjukkan dominasi institusi dari Amerika Serikat (400 publikasi), diikuti China dan Jerman (masing-masing 125 publikasi); (3) analisis co-occurrence kata kunci mengungkap evolusi fokus penelitian dari pendekatan konvensional menuju integrasi teknologi dan inovasi pembelajaran, dengan "differentiated instruction" sebagai node sentral yang terhubung dengan berbagai aspek pembelajaran membaca. Implikasi penelitian ini terletak pada pemahaman tentang tren dan pola penelitian dapat membantu pendidik mengembangkan pendekatan pembelajaran berdiferensiasi yang lebih efektif.

Kata kunci: Pembelajaran Berdiferensiasi, Membaca, Bibliometrik

Social, Humanities, and Education Studies (SHEs): Conference Series https://jurnal.uns.ac.id/shes

p-ISSN 2620-9284 e-ISSN 2620-9292



### INTRODUCTION

Reading ability is a fundamental skill that forms the basis of learners' academic success and social life. Ideally, every learner should have an adequate level of reading ability according to their level of education. But in reality, the gap in reading ability is still a global challenge in education. PISA 2018 data shows that the average reading score of learners in various countries is still below the OECD standard, with 79% of learners only reaching the minimum reading level (Schleicher, 2019). This indicates a significant gap in the mastery of reading skills among learners.

The heterogeneity of students' reading ability in one class is a challenge for educators. Based on Valiandes' (2015) research, differences in the level of readiness, learning style, interest, prior knowledge, experience, socioeconomic status, and social skills of learners contribute to variations in reading ability. Conventional teaching approaches that are "one-size-fits-all" have proven ineffective in accommodating the diverse learning needs of learners (Haager & Klingner, 2005). This condition demands a transformation of learning approaches that are more adaptive.

Differentiated instruction has emerged as a potential solution to the reading gap. This approach emphasizes on adjusting learning procedures based on learners' different modalities, interests, pace, skills, knowledge and attitudes (Koutselini, 2008). Various studies have shown the effectiveness of differentiated learning in improving reading skills, such as research from Jones et al. (2012) and Chamberlin & Powers (2010). However, the implementation of differentiated learning still faces challenges related to preparation time, complexity of implementation, and teachers' professional development needs (Corley, 2005; Nunley, 2006).

Differentiated learning has shown significant effectiveness in various educational contexts. Recent research by Tajik et al. (2024) showed that the implementation of differentiated learning at the college level can increase students' participation and motivation in foreign language learning. Research from by Nguyen & Walker (2023) revealed that differentiated approaches help to overcome resource limitations through varied content strategies. Moallemi (2023) found a positive relationship between differentiated learning and the level of learner engagement at university. Meanwhile, Yuen et al. (2023) identified opportunities for differentiated learning implementation during the pandemic that promotes learning independence and motivation. Longitudinal research by Alnahdi et al. (2021) through a systematic review and meta-analysis validated the effectiveness of differentiated learning in improving learning outcomes, especially in inclusive classrooms. These findings strengthen the argument that differentiated learning is an effective approach to accommodate learners' diversity and optimize learning outcomes.

Although there has been a lot of research on differentiated learning, there is no comprehensive study that maps the development of research in this field, especially related to improving reading skills. Bibliometric analysis can provide a holistic picture of research trends, collaboration between researchers, and the evolution of topics in this field. Previous studies such as Subban (2006) and Tomlinson et al. (2003) have limitations in terms of temporal and geographical coverage, and have not used a systematic bibliometric approach.

The present study aims at bibliometric analysis of publications on differentiated learning in the context of reading improvement. This research has novelty in terms of: (1) broader temporal coverage (2010-2024), (2) use of network analysis to identify collaboration patterns, and (3) mapping of topic trends using keyword co-occurrence analysis. The results are expected to provide an empirical foundation for the development of more effective differentiated learning as well as a reference for future research directions. The findings of this research are expected to contribute to the development of the body of knowledge of differentiated learning and provide practical

implications for educational practitioners.

# **METHODS**

This study uses bibliometric methods to examine the global development of differentiated learning research in reading improvement from 2014-2024. This 10-year time span was chosen to get an up-to-date picture of research developments in this field. Research data were retrieved from the Scopus database, which was chosen for its comprehensive coverage and rigorous indexing standards with a Q1-Q4 journal quality range.

The search strategy used the following keyword combinations: TITLE-ABS- KEY ("differentiated instruction" AND "reading" OR "literacy") AND (LIMIT-TO (PUBYEAR, 2014-2024)) AND (LIMIT-TO (DOCTYPE, "ar")) AND (LIMIT-TO (LANGUAGE, "English")) AND (LIMIT-TO (SUBJAREA, "SOCI")). From the search results obtained 1,459 documents which are then filtered based on several criteria, namely: 2014-2024 publication period, research articles (not reviews), English, Social Sciences, and Scopus indexed (Q1-Q4).

The data collection and processing process was carried out in several stages. First, the data was exported from Scopus in RIS (Research Information System) format. Second, the data were imported into Mendeley reference management software for data cleaning and duplication removal. Third, the cleaned data was analyzed using VOSviewer software for comprehensive bibliometric network visualization and analysis. Data analysis in this study covered three main dimensions according to the research questions. The first dimension focused on analyzing publication trends and identifying the most prolific authors in the field of differentiated learning for reading. The second dimension examines patterns of collaboration between authors, institutions and countries. The third dimension maps the evolution of research topics through keyword co-occurrence analysis to identify the main themes that evolved over the period.

# RESULTS AND DISCUSSION Publication trends and identifying the most prolific authors in the field of differentiated learning

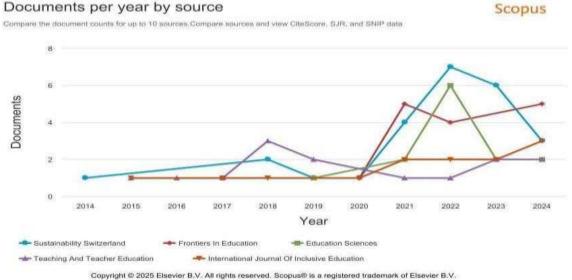


Figure 1. Publication Distribution per Year by Journal (2014-2024)

Analysis of the distribution of publications in key journals in the field of differentiated learning for the period 2014-2024 shows interesting dynamics in research development. Sustainability Switzerland as the leading journal shows a very dynamic trend, with a

relatively stable initial phase in 2014-2017 (1-2 publications/year), followed by a moderate increase in 2018-2019, and a significant spike from 2020. The journal's peak productivity was reached in 2022 with 7 publications, although it then experienced a gradual decline in 2023- 2024. This publication pattern reflects the increasing attention to sustainability aspects in the implementation of differentiated learning.

Frontiers in Education journal displays a more consistent and progressive development, especially since 2020. The journal maintains a steady publication momentum with an average of 4-5 articles per year during 2020-2024, indicating an ongoing commitment to accommodating differentiated learning research. This gradual increase indicates the maturity of methodological and theoretical studies in this field, as well as the growing interest of researchers to publish their findings in highly reputable journals. Education Sciences shows a more fluctuating pattern but with a positive trend, reaching a peak in 2022 with 6 publications, reflecting the dynamics of research that is responsive to the needs of learning adaptation in the contemporary era.

Teaching and Teacher Education and International Journal of Inclusive Education, despite having a lower publication frequency (on average 1-2 articles/year), make important contributions in the development of differentiated learning discourse from the perspective of teacher education and inclusive education. Both journals show consistency in facilitating publications with a specific focus on pedagogical aspects and practical implementation of differentiated learning. The stability of publications in these two journals indicates that the topic of differentiated learning has become an integral part of the discourse of inclusive education and teacher professional development.

An interesting phenomenon is seen in the interaction between the publication patterns of these five journals, where significant increases began to occur simultaneously after 2019. This can be attributed to several factors: first, the increasing global awareness of the importance of personalized learning; second, the development of educational technology that supports the implementation of differentiated learning; and third, the increasingly strong demand to accommodate the diversity of learners in the education system.

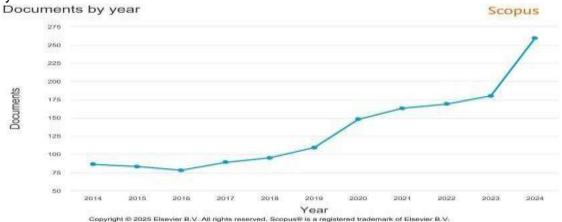


Figure 2: Trends in Total Annual Publications (2014-2024)

Analysis of the overall publication trends in Figure 2 shows very significant growth in differentiated learning research. The period 2014-2016 shows a stable phase with around 80 publications per year, reflecting the early stages of development and consolidation of the concept of differentiated learning in the academic literature. This phase is characterized by a focus on the development of theoretical frameworks and

early exploration of implementation in various educational contexts. The stability of the number of publications in this period also indicates that the research community is still at the stage of building a foundation of understanding on the effectiveness and applicability of differentiated learning.

The upward momentum began to be seen in the 2017-2019 period with gradual growth reaching 110 publications per year. This accelerated phase marks the growing awareness of the importance of more adaptive and personalized learning approaches. This increase also correlates with the increasingly diverse aspects studied, ranging from implementation methodology, assessment instrument development, to evaluation of impact on learning outcomes. Researchers are beginning to explore the various dimensions of differentiated learning in greater depth, including technology integration and adaptation in various cultural contexts.

After 2019, where the number of publications increased sharply from 110 to 150 in 2020, and continued to grow until reaching more than 250 publications in 2024. This acceleration can be attributed to several catalytic factors: first, the Covid-19 pandemic that forced the transformation of the education system and increased the urgency of more flexible and adaptive learning; second, the maturation of educational technology that supports the implementation of differentiated learning more effectively; and third, the increasing global awareness of the importance of inclusive education that accommodates the diversity of learners.

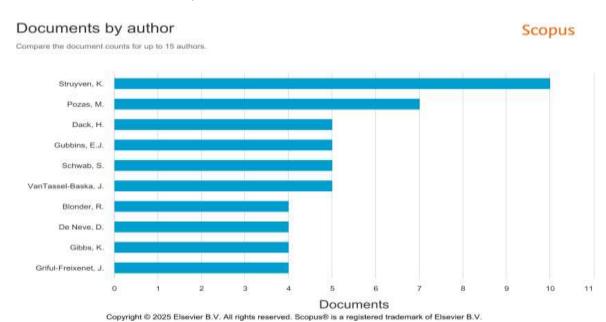


Figure 3: Most prolific authors in Differentiated Learning

Researcher productivity illustrated in Figure 3 shows an interesting polarization in the academic contributions of the field of differentiated learning. Struyven K. stands out as the most productive researcher with 11 publications, demonstrating exceptional dedication and consistency in the development of knowledge in this area. Struyven K.'s contributions are not only quantitatively significant, but also cover various aspects of differentiated learning, ranging from the development of theoretical frameworks, implementation methodologies, to evaluation of effectiveness in various educational contexts. This dominance indicates his role as a thought leader who influences the

direction of research development in this field.

Pozas M. comes second with 7 publications, showing a consistent focus on the practical aspects of implementing differentiated learning. His publications provide valuable insights into the adaptation and development of differentiated learning strategies in diverse contexts. The next group of researchers - Dack H., Gubbins E.J., Schwab S., and VanTassel-Baska J. - each with 5 publications, show specialization in specific aspects of differentiated learning. Their contributions enrich the understanding of the implementation of differentiated learning in various educational settings, from primary to higher education.

The research group consisting of Blonder R., De Neve D., Gibbs K., and Griful-Freixenet J., despite having a lower number of publications (4 publications), makes an important contribution in diversifying differentiated learning research. Their research often focuses on innovative and applicable aspects, such as technology integration in differentiated learning, adaptive assessment development, and implementation in inclusive education contexts. This diversity of research focus enriches the literature and broadens the understanding of the potential and challenges of differentiated learning.

The geographical distribution of these prolific researchers also demonstrates the internationalization of differentiated learning research. The researchers come from various institutions and countries, providing perspectives across cultures that are valuable in the development and adaptation of differentiated learning. This diversity of backgrounds enriches the understanding of how differentiated learning can be adapted and implemented in different socio-cultural contexts and educational systems.

Patterns of collaboration between authors, institutions and countries

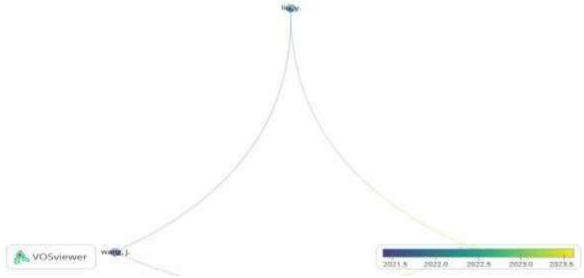


Figure 4: Visualization of Researcher Collaboration Network

The network visualization using VOSviewer provides a comprehensive picture of the collaboration patterns among researchers in the field of differentiated learning. The color gradation from blue to yellow displayed in the visualization shows the temporal evolution of collaborations from 2021 to 2023, enabling a better understanding of how research networks evolve over time. This color pattern also indicates the intensity and frequency of collaborations, with lighter areas indicating more recent or more intense collaboration activity, which is consistent with the data from Figure 3.

Wang, J. emerges as the central node in the collaboration network, characterized by its strategic position and multiple connections to various other researchers. His central role in the network is evident from the number of connection lines linking him to other

researchers, indicating his position as a key player in the development of differentiated learning research. This high intensity of collaboration reflects his significant contribution in building and expanding the research network in this field.

The network structure shows a complex and multidimensional collaboration pattern. There are several interconnected collaboration clusters, representing groups of researchers with similar research interests or focuses. These clusters do not stand alone but are connected to each other through key researchers such as Wang, J., who act as bridges or connectors between research groups. This pattern indicates active knowledge sharing and cross- pollination of ideas within the differentiated learning research community.

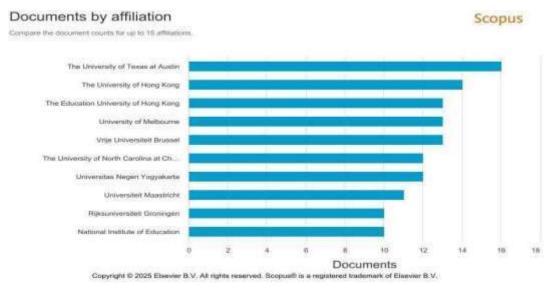


Figure 5. Cross-University collaboration pattern

An in-depth analysis of the interactions between the researcher, institution and country dimensions of differentiated learning research reveals complex and interrelated patterns. A strong relationship is seen between institutional productivity and international collaboration, with leading institutions such as The University of Texas at Austin and The University of Hong Kong showing more extensive and diverse collaboration networks. This phenomenon indicates that institutional reputation and resources play an important role in facilitating and expanding research collaboration networks across national borders.

The United States plays a dominant role not only in the quantity of publications but also in building and maintaining international collaboration networks. This dominance is evident in the number of research connections involving US institutions with institutions in other countries, creating a global research hub in the field of differentiated learning. This pattern reflects the capacity of the US higher education system to catalyze and support international research collaborations, supported by an established research infrastructure and adequate resources.

Interestingly, the analysis also revealed the emergence of regional research centers that act as secondary nodes in global collaboration networks. Institutions in Hong Kong, for example, have played a significant role in facilitating collaborations between Asian and Western researchers, while European institutions such as Vrije Universiteit Brussel have been instrumental in coordinating research in the European region. This pattern suggests the development of a more decentralized research ecosystem, where multiple hubs play a role in advancing differentiated learning research.

The temporal dimension of collaboration also shows interesting patterns, with a significant increase in the intensity and complexity of collaboration networks over time. The period 2021-2023 in particular marks an accelerated phase in the formation of new collaborations, characterized by the emergence of more diverse and interdisciplinary research connections. This trend indicates the maturing of the field of differentiated learning research, as well as its potential to continue to grow through more inclusive and diverse collaborations. The cross-dimensional pattern analysis also revealed gaps in access to international collaboration networks. Institutions from developing countries, while showing good productivity individually, tend to have limitations in establishing extensive international collaborations. This phenomenon suggests the importance of initiatives to bridge the gap, for example through more inclusive and equitable research collaboration programs.

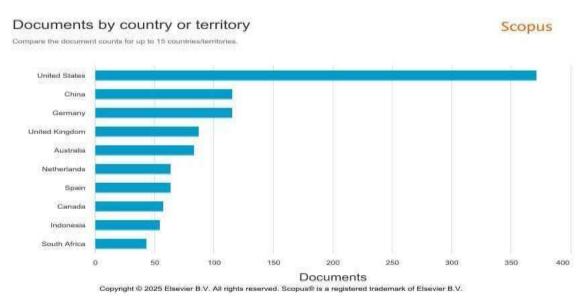


Figure 6: Distribution of Publications Across Countries

The geographical mapping of publications in the field of differentiated learning for the period 2014-2024 in Figure 6 reveals significant gaps in research contributions between countries. The United States shows remarkable dominance with nearly 400 publications, a number that substantially surpasses other countries. This dominance is not only reflected in the quantity of publications, but also in the diversity of topics and research methodologies developed. This strong research capacity is supported by an established higher education system, substantial research funding, and comprehensive academic infrastructure.

China and Germany emerged as the second largest contributors with around 125 publications each, demonstrating their important role in the development of differentiated learning research. China's strong position reflects the country's heavy investment in education research and its commitment to developing more adaptive learning approaches. Meanwhile, Germany's contribution demonstrates the strong tradition of education research in Europe, with a particular focus on developing inclusive and differentiated learning methodologies.

The United Kingdom and Australia round out the top five with around 100 publications each, confirming their significant role in the global research landscape. These two countries show particular excellence in the development of theoretical frameworks and practical implementation of differentiated learning. Their contributions

are also characterized by the high quality of their publications and the impact of their research, which is reflected in the citation rates and adoption of their research findings in educational practice.

Indonesia, with around 50 publications, managed to place itself in the top 10 contributing countries, an impressive achievement for a developing country. This position reflects a growing awareness of the importance of differentiated learning in Indonesia's diverse educational context. However, this number also indicates that there is still ample room for development, especially in terms of increasing research capacity, strengthening international collaboration, and diversifying research focus.

This geographical distribution also reveals interesting patterns in regional research focus. Western countries tend to lead in the development of theoretical frameworks and research methodologies, while Asian countries, including Indonesia, show strength in the adaptation and practical implementation of differentiated learning in local contexts. This gap provides an opportunity for more intensive international collaboration, where different strengths and perspectives can be synergized for more comprehensive knowledge development in the field of differentiated learning.

Mapping of research topics based on keyword co-occurrence analysis.

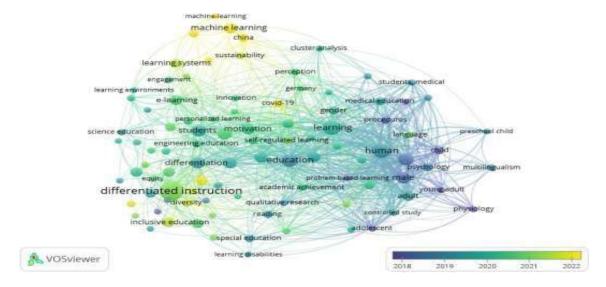


Figure 7. Bibliometric Differentiated Topic Trends

Figure 7 shows that the keyword co-occurrence network visualization using VOSviewer shows a complex and interconnected map of research topics in the field of differentiated learning, especially related to reading skills. The term "differentiated instruction" emerges as the central node with the strongest connections to various topic clusters, indicating its position as a core concept that bridges various aspects of research. The color gradient from blue to yellow shows the temporal evolution of the research topic from 2018 to 2022, providing a dynamic picture of the development of the research focus.

In the context of reading ability, there are clusters linking "reading" with "academic achievement", "learning disabilities" and "special education". This connection indicates a strong research focus on the implementation of differentiated learning to improve reading skills, especially for learners with special needs. This connection is also closely related to the concepts of "inclusive education" and "equity", showing researchers' attention to the aspects of justice and inclusiveness in the development of reading skills.

Interestingly, the visualization shows the evolution of research methodologies with the emergence of technology integration in differentiated learning. This can be seen from

the presence of keywords such as "e-learning", "machine learning", and "personalized learning" that have a more recent timestamp (yellowish color). The connection between technology and differentiated learning for reading skills reflects the trend of adapting learning approaches in the digital era, especially after the period of "covid-19" which also appears as a significant keyword.

The pedagogical aspect of differentiated learning for reading is evident from the clusters that connect "motivation", "self-regulated learning" and "engagement". This connection indicates the importance of psychological factors and active learning approaches in developing reading skills through differentiated learning. This cluster is also connected to "qualitative research", indicating the dominance of qualitative approaches in exploring the effectiveness of differentiated learning for reading skills.

Recent developments (2021-2022) show an emerging focus on "sustainability" and "innovation" in the implementation of differentiated learning for reading skills. This is reflected in the relatively new position of these keywords in the visualization. This trend indicates a paradigm shift towards the development of more sustainable and innovative differentiated learning models, taking into account long-term aspects and adaptability in improving learners' reading skills.

### **Discussion**

This study aims to conduct a bibliometric analysis of publications on differentiated learning in the context of improving reading skills. The bibliometric analysis revealed some important findings related to the theory and practice of differentiated learning.

First, the publication trend shows a substantial increase, especially after 2019, with a jump from 110 to more than 250 publications by 2024. This increase is in line with the Universal Design for Learning (UDL) theory that emphasizes the importance of flexibility and adaptability in learning (CAST, 2010). This is reinforced by the research of Alnahdi et al. (2021) which identified how differentiated learning supports UDL principles in accommodating learners' diversity. This development also reflects Vygotsky's theory of Zone of Proximal Development (ZPD), where differentiated learning enables more effective scaffolding according to learners' individual needs (Borja et al., 2015).

Secondly, the pattern of research collaboration identified shows the importance of the interconnection between theory and practice. The dominance of the United States with nearly 400 publications, followed by China and Germany, reflects the implementation of Tomlinson's (2014) differentiated learning theory that emphasizes the importance of content, process and product in learning. Yuen et al. (2023) reveal how international collaboration enriches understanding of the adaptation of differentiated learning in various cultural contexts, in line with socio-cultural principles in learning.

Third, keyword co-occurrence analysis reveals an interesting evolution in the integration of technology with differentiated learning. The cluster that connects "reading" with "e-learning" and "personalized learning" reflects the Connectivism theory proposed by Siemens (2005), where technology plays an important role in facilitating personalized learning. Nguyen and Walker (2023) reinforce this with their

findings on the effectiveness of technology integration in differentiated learning for reading skills. Research from Moallemi (2023) adds an important dimension with his findings on the relationship between differentiated learning and learner engagement. This relates to Self-Determination theory (Ryan & Deci, 2000) which emphasizes the importance of autonomy and competence in learning. The keyword cluster linking "motivation", "self-regulated learning" and "engagement" reflects the implementation of this theory in differentiated learning practices.

This study has some methodological limitations that need to be recognized. First, the focus on the Scopus database may exclude relevant publications from other databases. Second, the analysis is limited to English-language publications. Third, the analysis period of 2014-2024 may not have covered the latest developments in this field.

For future research, it is recommended to: (1) expand the scope of the database, (2) conduct cross-language comparative analysis, (3) explore practical implementation in local contexts, and (4) investigate more deeply the integration of technology in differentiated learning. The implications of this study include three aspects. Theoretically, the findings reinforce the importance of integrating various theoretical perspectives in differentiated learning. Methodologically, the results of the bibliometric analysis provide a developmental map that can direct future research. Practically, an understanding of research trends and patterns can help educators develop more effective differentiated learning approaches.

## **CONCLUSIONS**

A bibliometric analysis of the development of differentiated learning research in reading improvement for the period 2014-2024 reveals significant dynamics in the global research landscape. Publication trends show substantial growth, especially after 2019, reflecting the increasing urgency and relevance of differentiated learning approaches in the contemporary educational era. Patterns of research collaboration reveal a gap between developed and developing countries, with institutions from the United States, China and Germany dominating, but also show a positive trend of emerging contributors from developing countries such as Indonesia.

The mapping of research topics indicates an evolution of focus from conventional approaches towards the integration of learning technologies and innovations, which is reflected in the emergence of keyword clusters such as "e- learning", "personalized learning", and "innovation". This finding confirms the importance of adapting differentiated learning to the development of educational technology. It also reveals the crucial role of learning theories such as Universal Design for Learning and Zone of Proximal Development in shaping the conceptual framework of differentiated learning for reading improvement. The implication of this research lies in the understanding of research trends and patterns that can help educators develop more effective differentiated learning approaches especially in improving reading skills.

# **LITERATURE**

- Alnahdi, G., Schwab, S., & Lüftenegger, M. (2021a). Differentiated instruction in inclusive classrooms: A systematic review and meta-analysis. *Educational Psychology Review*, 33, 1331–1357. https://doi.org/10.1007/s10648-020-09569-5
- Alnahdi, G., Schwab, S., & Lüftenegger, M. (2021b). Differentiated instruction in inclusive classrooms: A systematic review and meta-analysis. *Educational Psychology Review*, 33, 1331–1357. https://doi.org/10.1007/s10648-020-09569-5
- Borja, L. A., Soto, S. T., & Sanchez, T. X. (2015). Differentiating instruction for EFL learners. *International Journal of Humanities and Social Science*, *5*(8), 30–36.
- Chamberlin, M., & Powers, R. (2010). The promise of differentiated instruction for enhancing the mathematical understandings of college students. *Teaching Mathematics and Its Applications*, 29(3), 113–139. https://doi.org/10.1093/teamat/hrq006
- Corley, M. (2005). Differentiated instruction: Adjusting to the needs of all learners. *Focus on the Basics*, 7(C). https://doi.org/10.1002/ace.311
- Haager, D., & Klingner, J. K. (2005). *Differentiating instruction in inclusive classrooms:*The special educator's guide. Allyn & Bacon. https://doi.org/10.1177/07419325050260050101
- Heacox, D. (2017). Differentiating instruction in the regular classroom: How to reach and teach all learners (Updated anniversary edition). Free Spirit Publishing.
- Jones, R., Yssel, N., & Grant, C. (2012). Reading instruction in tier 1: Bridging the gaps by nesting evidence-based interventions within differentiated instruction. *Psychology in the Schools*, 49(3), 210–218. https://doi.org/10.1002/pits.21591

- Marmoah, S., Gestiardi, R., Sarwanto, S., Chumdari, C., & Maryani, I. (2022). A bibliometric analysis of collaboration skills in education (2019-2021). *Journal of Education and Learning (EduLearn)*, 16(4), 542–551. https://doi.org/10.11591/edulearn.v16i4.20337
- Moallemi, R. (2023). The relationship between differentiated instruction and learner levels of engagement at university. *Journal of Research in Integrated Teaching and Learning*. https://doi.org/10.1108/JRIT-09-2023-0092
- Nguyen, H., & Walker, C. L. (2023). Enhancing language learning through differentiated content strategies: Overcoming resource limitations. *Journal of Language and Education*, 9(1), 112–129. https://doi.org/10.17323/jle.2023.13970
- Nunley, K. F. (2006). *Differentiating in the high school*. Corwin Press. https://doi.org/10.4135/9781483329178
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, *55*(1), 68–78. https://doi.org/10.1037/0003-066X.55.1.68
- Schleicher, A. (2019). *PISA 2018: Insights and interpretations*. https://doi.org/10.1787/b6d3e145-en
- Subban, P. (2006). Differentiated instruction: A research basis. *International Education Journal*, 7(7), 935–947.
- Tajik, O., Noor, S., & Golzar, J. (2024). Investigating differentiated instruction and the contributing factors to cater EFL students' needs at the collegial level. Asian-Pacific Journal of Second and Foreign Language Education, 9(74). https://doi.org/10.1186/s40862-024-00299-5
- Tomlinson, C. A. (2014a). The differentiated classroom: Responding to the needs of all learners (2 ed.). ASCD.
- Tomlinson, C. A. (2014b). The differentiated classroom: Responding to the needs of all learners. ASCD.
- Valiandes, S. (2015). Evaluating the impact of differentiated instruction on literacy and reading in mixed ability classrooms: Quality and equity dimensions of education effectiveness. *Studies in Educational Evaluation*, 45, 17–26. https://doi.org/10.1016/j.stueduc.2015.02.005
- Yuen, S.-Y., Luo, Z., & Wan, S. W.-Y. (2023). Challenges and opportunities of implementing differentiated instruction amid the COVID-19 pandemic: Insights from a qualitative exploration. *Education Sciences*, 13(10), 989. https://doi.org/10.3390/educsci13100989