

Beyond Words: Mapping the Landscape of Multimodality in English Language Writing (2020-2024)

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Abstract

In recent years, the field of English language writing has undergone a significant transformation with the integration of multimodal and digitally driven pedagogies. Traditional, text-centric writing instruction is increasingly being supplemented or replaced by approaches that leverage diverse semiotic resources to meet evolving educational and technological demands. This shift aligns with global educational priorities such as Sustainable Development Goal 4 (Quality Education), which emphasises inclusive and equitable learning opportunities. This study presents a bibliometric analysis of research on multimodality in English language writing published between 2020 and 2024. Using the Dimensions AI database, 244 open-access journal articles were identified and analysed through performance analysis, bibliographic coupling, and keyword co-occurrence mapping using VOSviewer. The analysis maps publication trends, influential authors, sources, institutions, and countries, as well as the intellectual and thematic structure of the field. Results indicate that research output is concentrated in regions such as Indonesia, China, and the United Kingdom, with notable variation between publication volume and citation impact. Bibliographic coupling reveals four dominant research clusters: technology-enhanced writing pedagogy, translanguaging and inclusive practices, informal digital learning environments, and English-medium instruction. Keyword co-occurrence analysis reveals three recurring thematic orientations: pedagogical foundations, learning outcomes, and empirical research methods. Rather than evaluating instructional effectiveness, this study offers a structured overview of how multimodality in English language writing has been conceptualised and investigated in recent scholarship. The findings provide a reference point for future research design, theoretical positioning, and evidence-informed discussion of multimodal writing within English language education.

Keywords: multimodality, English language writing, translanguaging, digital literacy in ESL, multimodal pedagogy

1. Introduction

Recent technological developments, methodological innovations, and globalisation have all had a substantial impact on the language teaching scene. One of the most important paradigms for comprehending and improving English language learning in these technologies is multimodality (Lim & Kessler, 2023). Meaning can be created and interpreted through a variety of communication channels, including text, images, sounds, gestures, and digital media. "Multimodality" is that term. Instead of being limited to spoken or written language alone, this method acknowledges that communication is enhanced by the dynamic interaction of several semiotic resources (Cohn & Schilperoord, 2024). Multimodality in language acquisition shifts the emphasis from conventional text-based approaches to more comprehensive strategies that leverage a variety of communication channels.

It is impossible to overestimate the significance of multimodal techniques in language instruction today. Students are increasingly exposed to a wide range of communication channels as digital technologies become more widely used. The best examples of the multimodal aspect of modern communication are social media platforms, video-sharing websites, and online forums where people express meaning using text, images, emojis, and videos (Arslan, 2020). Therefore, English language teachers need to prepare their students to interact and manage this intricate communication environment (Yu et al., 2024). Teachers can better adapt classroom procedures to the demands of the real world and help students improve their capacity to recognise and produce meaning in a variety of contexts and forms by implementing multimodal techniques (Rahmanu & Molnár, 2024).

Despite its potential, language acquisition is nonetheless hampered by several issues. One of these frequent problems is the over-reliance on conventional approaches that emphasise vocabulary, grammar, and rote memorisation rather than the more comprehensive

conversational skills needed in the modern world. Students frequently find it difficult to stay motivated and involved in class, especially when the subject matter is unrelated to their interests and past experiences (Sánchez, 2023). Furthermore, some students find it difficult to access and utilise multimodal materials due to the digital divide created by rapid technological development (Yihu & Wang, 2023). Linguistic and cultural diversity in the classroom presents additional obstacles for teachers, as they must address students' differing skill levels and viewpoints regarding multimodal texts (Ramos & Musanti, 2021).

In parallel with its growing pedagogical relevance, research on multimodality in English language writing has expanded rapidly across diverse disciplinary domains, including applied linguistics, digital literacy, education, and communication studies. However, this expansion has resulted in a fragmented body of literature, characterised by dispersed publication outlets, varying methodological approaches, and limited synthesis of intellectual contributions. While individual studies have explored specific aspects such as multimodal composition, translanguaging, and digital writing practices, there remains a lack of systematic understanding of how this field has evolved in terms of scholarly productivity, collaboration patterns, and thematic development. Without such mapping, it is difficult to identify influential contributors, dominant research directions, and emerging gaps that can inform future research.

In this context, bibliometric analysis provides a robust and data-driven approach to examining the structure and evolution of a research field. Unlike traditional narrative or systematic reviews, bibliometric techniques enable the quantitative mapping of publication trends, citation impact, collaboration networks, and thematic clusters within a large corpus of literature (Wider et al., 2024; Sun & Lan, 2023). In applied linguistics and writing research, bibliometric studies have been increasingly used to uncover intellectual structures, trace research trajectories, and identify influential works that shape scholarly discourse. Therefore, applying bibliometric analysis to multimodality in English language writing is both timely and necessary to provide a comprehensive overview of the field's development.

Despite the rapid growth of research on multimodality, the field remains fragmented across pedagogical contexts, disciplinary traditions, and methodological orientations. There is limited consolidated understanding of how knowledge in this domain is structured, who the key contributors are, and what thematic patterns define current scholarship. Addressing this gap requires moving beyond individual pedagogical studies toward a systematic mapping of the research landscape. Thus, the following questions are the focus of this study:

1. Which authors, sources, institutions, and countries have been most influential in research on multimodality in English language writing between 2020 and 2024?
2. How is the intellectual structure of multimodality in English language writing organised based on bibliographic coupling analysis?
3. What thematic trends and research emphases emerge from keyword co-occurrence analysis in this field?

2. Method

Bibliometric analysis was selected as the methodological approach for this study because it enables a systematic examination of large-scale publication patterns, thematic structures, and scholarly influence within a research domain (Wider et al., 2024). Given the rapid expansion and interdisciplinary nature of multimodality research in English language writing, bibliometric techniques are particularly suitable for identifying intellectual clusters, dominant research trajectories, and emerging areas of inquiry. Rather than synthesising pedagogical outcomes, this approach focuses on mapping how knowledge in the field has been produced, connected, and disseminated over time.

Bibliometric analysis offers a systematic and quantitative approach to charting the intellectual landscape of a subject. Thematic progression, author networks, notable publications, and developmental trends in the emerging field of multimodality in English language writing are all particularly well-suited to bibliometric analysis. Recent studies have revealed growing trends in digital and multimodal methods of writing instruction, tracing the development of research on multimodal literacy and education using VOSviewer (Li, 2024). Multimodal writing techniques are becoming increasingly popular across education, technology, and language, calling for a data-driven understanding of their scholarly evolution (Christian et al., 2024). Research gaps, significant journals, significant contributors, and shifts in topic concentration over time can all be identified using this type of analysis.

Additionally, because multimodality is multidisciplinary, bibliometric tools enable a more systematic exploration of how these diverse disciplines, such as applied linguistics, education, communication studies, and digital literacy, converge in the context of writing pedagogy (Sun & Lan, 2023). To provide future research objectives, curricular enhancements, and theoretical developments in the field of multimodal writing instruction with an evidence-based foundation, this work employs bibliometric approaches (Nurohmah & Sundasewu, 2024).

2.1 Bibliographic Coupling Analysis

Bibliographic coupling is a powerful method for identifying conceptual relationships between publications through shared references. When two documents reference the same set of sources, it is known as bibliographic coupling and shows that the two documents share conceptual or methodological commonalities. Bibliographic coupling was done in this study using VOSviewer to show clusters of academic work thematically related to the topic of multimodality in English language writing. The usefulness of this approach for visualising intellectual structures and monitoring the development of a research domain has been confirmed by recent studies (Ma et al., 2022).

This approach facilitates the identification of significant research directions, underlying theoretical frameworks, and cohesive topic groups (Chaturbhuj & Batcha, 2022). Compared to citation or co-citation analysis, which usually highlights the impact of the past, bibliographic coupling is more forward-looking and better suited to capturing the current structure and evolving character of a study subject (Song et al., 2023). By mapping bibliographic linkages among papers in the Dimensions AI database, this study aims to provide a comprehensive view of the field's current structure, with an emphasis on noteworthy recent publications and emerging areas of scholarly exploration (Wenjuan & Abdullah, 2024).

2.2 Co-occurrence Keywords Analysis

Keyword co-occurrence analysis is a crucial method for determining the conceptual focal regions and theme organisation of a body of literature. It assumes that terms that appear frequently across multiple publications are likely representative of linked topics or patterns (Wider et al., 2024). Co-occurrence analysis was performed in this study, utilising author keywords extracted from the Dimensions AI dataset and visualised using VOSviewer. Particularly in linguistics and digital learning contexts, recent studies have highlighted how this approach can reveal prevailing thematic trends (Helingo & Nurpahmi, 2024).

This method enabled the identification of recurring and significant phrases that characterise the discourse on multimodality in English language writing. Using categories such as "multimodal composition," "digital literacy," "writing pedagogy," "visual rhetoric," and "academic writing," the resulting groupings reveal how academics perceive the field (Chen et al., 2023). The study analyses the emergence of multidisciplinary intersections, new subfields, and important topics by analysing the quantity and strength of these keyword links (Rajamanickam et al., 2024). By highlighting unexplored or emerging domains, this insight not only charts the current state of knowledge but also guides future research (Sun & Lin, 2025).

2.3 Search Strategy

A thorough search of the Dimensions AI database yielded 2,885 entries at the outset of the bibliometric analysis of multimodality in English-language writing. To ensure relevance and focus, this sizable dataset was refined using a systematic filtering procedure that applied several inclusion criteria. First, 1,489 entries that did not fall within the desired publishing period of 2020-2024 were eliminated. This exclusion process ensured the analysis reflected current trends in multimodal language writing and aligned the dataset with recent scholarly advancements.

Table 1. Inclusion Criteria

Dimensions AI Database	Criteria
Time period	2020 to 2024
Search keywords	"multimodal" and "writing"
Document Types	Language Studies
Languages	Article
Open Access	All OA

Following a screening by document type, 842 entries that were not research articles, such as reviews, editorials, or commentaries, were eliminated. 304 records were disqualified from further eligibility checks because they did not meet two essential criteria: they were (1) irrelevant to Language Studies, and (2) not open access. These exclusions ensured that only readily available, high-importance scholarly books remained.

A total of 244 articles were included for analysis after all filters were applied. These satisfied the following requirements for inclusion: they were open access, published in peer-reviewed journals, happened between 2020 and 2024, and were related to language studies. A PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) flowchart provides a comprehensive visualisation of the whole screening and selection process, explicitly tracking each step from initial identification to final inclusion, improving scientific rigour and reproducibility.

According to reports, the average number of citations per paper was 4.66, indicating a moderate level of scholarly prominence in the topic. Even though this number might seem low compared to more established fields, it is a very new and developing field of study that has recently gained popularity, particularly after the pandemic, when digital and multimodal pedagogy became more common in classrooms.

Multimodal writing appears to have gained more attention in tandem with broader educational developments toward digital, inclusive, and student-centred pedagogies, as indicated by the quantitative surge in publications. This trend aligns with international efforts to improve the quality of education (SDG 4) and to equip students with multimodal and digital literacy skills. The steady rise in publications over the past five years indicates a growing scholarly consensus on the importance of multimodality in changing English language teaching methods.

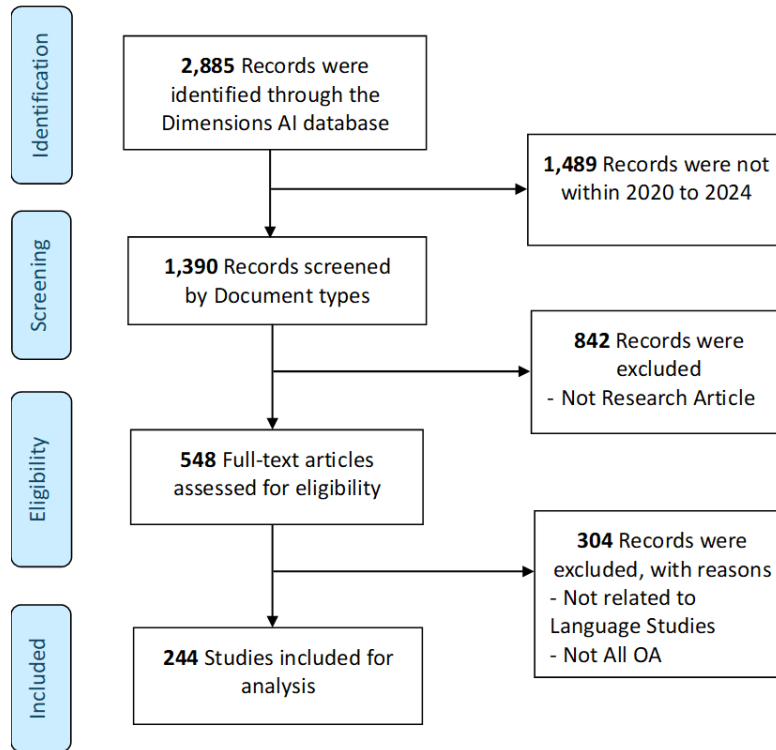


Figure 1. PRISMA Flowchart

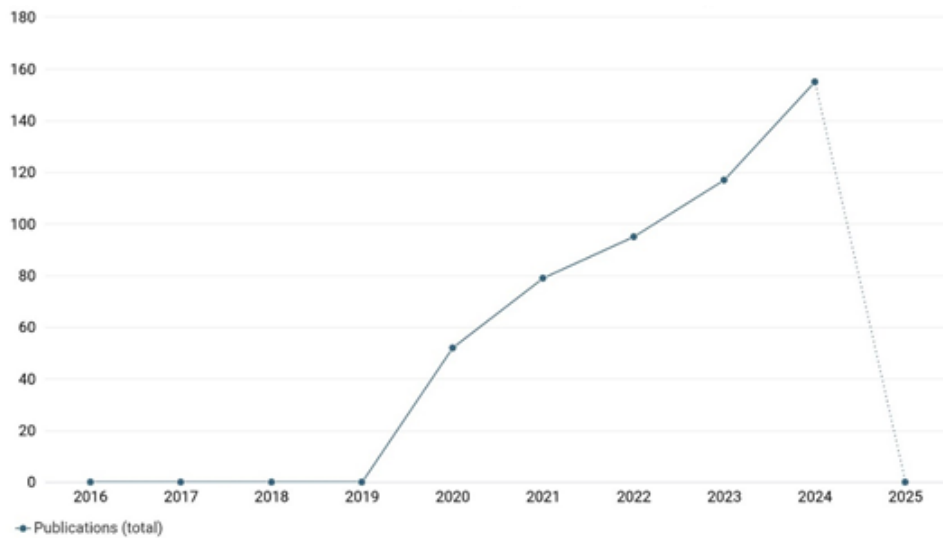


Figure 2. Quantity of publications and citations between 2020 and 2024

It should be noted that this study is limited to open-access publications indexed in the Dimensions AI database. As a result, relevant studies published in subscription-based or non-indexed journals may not be represented, potentially influencing the visibility of certain research communities or high-impact venues.

3. Results

3.1 Performance Analysis

3.1.1 Performance by Documents

The top 10 most-cited papers in the field of multimodality in English language writing were identified at the document level by the bibliometric analysis, and each one made a substantial contribution to the academic discourse. Shadiev and Yang (2020) are at the top of the list. Their review of technology-enhanced English language learning and teaching has received 222 citations, demonstrating its

fundamental importance at the nexus of digital multimodality and language education. Aizawa et al. (2020), which examines the difficulties Japanese students in English-medium instruction (EMI) programs face in their English language proficiency, comes in second with 141 citations. Then, with 92 citations, come Tai and Wei (2020), who investigate translanguaging methods in Hong Kong. The EMI settings, digital affordances, and inclusive pedagogies are heavily emphasised in these highly referenced papers. A post-humanist viewpoint is evident in recent entries like Ou et al. (2024), which address AI-powered writing tools in academia and indicate a move toward more technologically mediated study issues in the discipline.

3.1.2 Performance by Sources

Additionally, the volume and impact of the publications most active in sharing work on multimodality in English-language writing differ. The journal *System* stands out as a significant source, with 18 papers that advance the subject and 340 citations overall, backed by a Total Link Strength (TLS) of 6. This is reflected in its significant position within the research network and its influence on the conversation surrounding educational technology and applied linguistics. It is interesting to note that *Sustainability*, a journal usually associated with environmental and developmental issues, led in citations (361) and TLS (7) but ranked third in volume (12 articles), demonstrating the growing interdisciplinary convergence between digital language pedagogies and sustainable education practices. Additional noteworthy journals that show a strong interest in the pedagogical and practical aspects of multimodal writing include *Linguistics and Education* (65 citations from 7 papers) and *Studies in English Language and Education* (81 citations from 7 documents).

3.1.3 Performance by Authors

With 235 citations from 3 articles, Rose, H. tops the field in authorial citations, demonstrating a substantial impact. Following with 100 citations, Tai, K. W. H. highlights their role in multimodal engagement and translanguaging. With 44 citations and a comparatively high TLS of 3, McKinley, J., is another well-known figure with strong collaborative relationships within the academic network. Even though certain writers, like Abdullah, F., and Emilia, E., have many documents (4 and 3, respectively), their citation impact remains low, suggesting they are new to the conversation or that their influence is developing. With authors from both the Global North and the Global South participating, the diversity of origins further demonstrates a worldwide dispersion of research interests.

3.1.4 Performance by Organisations

Despite having very low citation counts (28 and 51), Indonesia University of Education and Universitas Pendidikan Ganesha lead the field in institutional output with 10 and 7 publications, respectively. Yet, with 182 and 238 citations, respectively, University College London and the University of Oxford exert greater scholarly influence despite having fewer publications (5 and 4 papers). This suggests a higher average citation rate and potentially improved global awareness. Both the University of Hong Kong and the University of Jyväskylä exhibit a high level of participation in multimodal literacy and language pedagogy research, as seen by their numerous publications and moderate citation counts. Despite the enormous number of Southeast Asian institutions, our results indicate that leading Western institutions continue to have higher citation visibility, most likely due to larger distribution networks and greater indexing reach.

3.1.5 Performance by Countries

Indonesia has the most documents (112) at the national level, indicating substantial research activity in multimodal English language writing. But when it comes to citation impact, China (536 citations) and the UK (571 citations) outperform Indonesia (260 citations), demonstrating their greater research uptake and scholarly influence. Despite having only 14 publications, the US has a high effect per article, as evidenced by its 111 citations. Turkey (47 citations), Malaysia (53 citations), and Spain (173 citations) are other noteworthy contributors. Strong collaboration and citation networks are also evident in the comparatively high Total Link Strength (TLS) of China (20) and the United Kingdom (26), suggesting that these nations are crucial in shaping the global research conversation on multimodal language writing. The field's global relevance and cross-system applicability are further highlighted by its geographic diversity, which includes Europe, Asia, Africa, and South America. The discrepancy between publication volume and citation impact, particularly in Indonesia, may reflect broader structural factors in global academic publishing. These include differences in journal visibility, indexing coverage, language of publication, and access to international citation networks. In contrast, institutions in the United Kingdom and China may benefit from stronger integration into established scholarly communication systems, contributing to higher citation uptake despite lower publication counts.

3.2 Bibliographic Coupling Analysis

The field of multimodality in language writing is examined through technological, sociolinguistic, affective, and policy lenses, as shown by the bibliographic coupling analysis. Technology-enhanced pedagogy, translanguaging and artificial intelligence, digital informal learning, and EMI and policy research are the four clusters that divide the subject into distinct theme zones, whereas the top 10 articles reflect a balance of empirical and theoretical contributions. When combined, these revelations offer a methodical understanding of the field's current directions and open avenues for further investigation.

Table 2. Bibliographic Coupling (Top 10 Articles)

Rank	Authors	Title	Citations	Total Link Strength
1	Shadiev & Yang (2020)	Review of Studies on Technology-Enhanced Language Learning and Teaching	222	9
2	Aizawa et al. (2020)	Beyond the threshold: Exploring English language proficiency, linguistic challenges, and academic language skills of Japanese students in an English medium instruction programme	141	31
3	Tai & Wei (2020)	Bringing the outside in: Connecting students' out-of-school knowledge and experience through translanguaging in Hong Kong English Medium Instruction mathematics classes	92	36
4	Teng (2022)	Incidental L2 vocabulary learning from viewing captioned videos: Effects of learner-related factors	64	9
5	Sahan et al. (2021)	Models of EMI pedagogies: At the interface of language use and interaction	54	26
6	Slaughter & Cross (2020)	Challenging the monolingual mindset: Understanding plurilingual pedagogies in English as an Additional Language (EAL) classrooms	54	11
7	Yulian (2021)	The flipped classroom: Improving critical thinking for critical reading of EFL learners in higher education	50	0
8	Gorter et al. (2021)	The linguistic landscape as a resource for language learning and raising language awareness	48	7
9	Ou et al. (2024)	Academic communication with AI-powered language tools in higher education: From a post-humanist perspective	44	6
10	Zhou & Mann (2021)	Translanguaging in a Chinese university CLIL classroom: Teacher strategies and student attitudes	41	37

Multimodal English language writing has a rich, multidisciplinary core, as evidenced by the top 10 most bibliographically coupled texts. With the most citations (222), Shadiev and Yang (2020) provide a groundbreaking assessment of technology-enhanced language learning that emphasises digital modes in instructional design. Following this, Aizawa et al. (2020) investigate academic literacy issues in English Medium Instruction (EMI), demonstrating a high Total Link Strength (TLS 31) and great pedagogical relevance. Translanguaging in EMI math classes is examined in Tai and Wei (2020), the most connected study (TLS 36), which connects learner identification and multilingual behaviours.

Yulian (2021) and Teng (2022) demonstrate how flipped classrooms and captioned movies encourage vocabulary retention and critical reading through multimodal input. To challenge monolingual norms, Sahan et al. (2021) and Slaughter and Cross (2020) explore EMI models and plurilingual pedagogies. Gorter et al. (2021) highlight the use of linguistic landscapes as instruments for multimodal awareness. Ou et al. (2024) present a fresh post-humanist perspective on writing assisted by AI. Zhou and Mann (2021) show how translanguaging techniques function in CLIL contexts. When taken as a whole, these works show that writing education is increasingly moving toward inclusive, tech-driven, and multilingual frameworks, which have consequences for both language policy and classroom innovation.

3.2.1 Bibliographic Coupling Analysis by Clusters

The foundation of Cluster 1 (12 documents) is provided by publications like Teng (2022) and Shadiev and Yang (2020). Data-driven learning (DDL), virtual reality, game-enhanced environments, and captioned films are some of its subthemes, which centre on technology-enhanced language learning. For example, Li et al. (2022) investigated VR for vocabulary learning, and Lee (2023) examined L2 acquisition through digital gaming. The collective findings of this research demonstrate how digital multimodal inputs promote learner autonomy, emotional engagement, and vocabulary acquisition. The existence of journal publications on sustainability highlights a pedagogical issue regarding inclusivity and engagement in online learning, particularly in the wake of COVID. Multimodality is highlighted in this cluster as a result of and a tool of digital pedagogy.

Cluster 2, comprising 9 studies, focuses on equitable multilingual learning environments, AI technologies, and translanguaging. Notable studies that discuss how students' extracurricular activities and digital tools alter classroom discourse include Tai and Wei (2020) and Ou et al. (2024). The effectiveness of translanguaging, especially in multilingual and performance-based contexts like music education, is demonstrated by Kelly and Hou (2022) and Ou and Gu (2022) when combined with machine translation and spatial repertoires. This cluster advances a fluid, hybrid, learner-driven vision of multimodal literacy, fueled by computational support and sociocultural context.

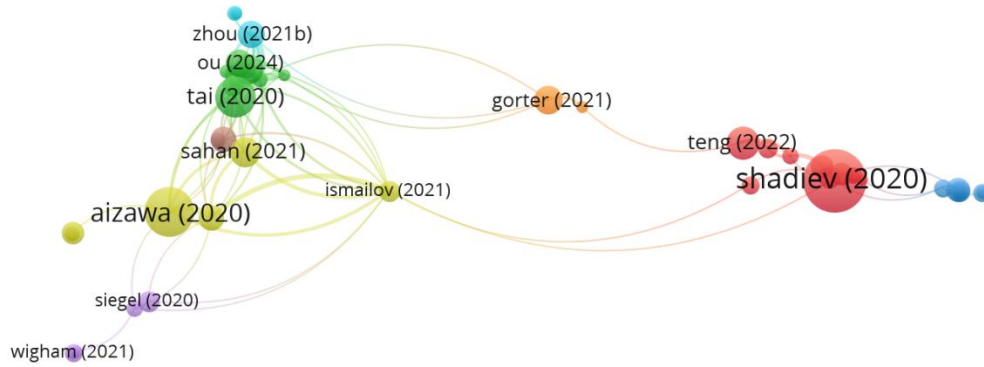


Figure 3. Bibliographic Coupling Analysis (VOSviewer Visualisation)

The topics of Cluster 3, comprising 7 articles, are student agency, YouTube, social media, and cross-cultural telecollaboration. Kim and Kim (2021), who investigate how Korean learners use YouTube, and Ariantini et al. (2021), who integrate social media in language learning, are important examples. As demonstrated by Porto et al. (2021), who employ the arts to manage discomfort during COVID-19, emotional dimensions are crucial in this context. This cluster emphasises how students build knowledge and identity through affective and experiential interaction, placing multimodality in unconventional learning environments. It discusses media consumption, digital literacy, and the transformative power of informal learning environments.

High-impact studies such as Aizawa et al. (2020) and Sahan et al. (2021) are included in Cluster 4 (6 articles), which represents research at the nexus of academic literacy, EMI, and language policy. By examining teaching approaches, student adaptability, and structural obstacles, these works address the challenges of linguistic transition for non-native English speakers in EMI settings. Ismailov et al. (2021) concentrate on learner-centred EMI implementation, whereas McKinley and Rose (2022) explore the intersection of English language teaching techniques with EMI realities. This cluster highlights the institutional aspects of multimodality, where learner identity, academic rigour, and classroom regulation are constantly negotiated.

Table 3. Bibliographic Coupling Clusters

Cluster No and Colour	Cluster Labels	No. of Articles	Representative Publications
Cluster 1 (Red)	Technology-Enhanced and Immersive Learning Approaches	12	Shadiev & Yang (2020); Teng (2022); Li et al. (2022); Mihai et al. (2022); Muñoz & Cadierno (2021); Lee (2023); Lusta et al. (2023)
Cluster 2 (Green)	Translanguaging, AI, and Inclusive Language Practices	9	Tai & Wei (2020); Slaughter & Cross (2020); Ou et al. (2024); Kelly & Hou (2022); Ou & Gu (2022)
Cluster 3 (Blue)	Informal Digital Platforms and Affective Engagement	7	Ariantini et al. (2021); Kim & Kim (2021); Porto et al. (2021); Rinekso et al. (2021)
Cluster 4 (Yellow)	English Medium Instruction (EMI) and Language Policy	6	Aizawa et al. (2020); Sahan et al. (2021); McKinley & Rose (2022); Ismailov et al. (2021)

3.3 Co-Occurrence Analysis

The extensive pedagogical and methodological scope of the topic is reflected in the top fifteen most commonly occurring terms in language writing studies related to multimodality. With 402 instances, the keyword "study" ranks top, demonstrating the large number of empirical investigations in the field. "Student" (377) and "language" (238) come in close succession, emphasising the learner-centric and language-specific focus of these multimodal investigations. The terms "teacher" (226) and "education" (231) highlight the instructional and institutional contexts in which these methods are used. Words like "learner" (204) and "foreign language" (96) indicate inclusion across native and non-native contexts, while the predominance of "English" (219) underscores English language acquisition as the primary subject.

Table 4. The 15 Most Frequent Keywords in the Co-Occurrence Analysis

Rank	Keyword	Occurrences	Relevance
1	Study	402	2.53
2	Student	377	2.04
3	Language	238	1.04
4	Education	231	0.93
5	Teacher	226	1.08
6	English	219	0.92
7	Learner	204	0.78
8	Data	188	0.81
9	Skill	187	0.74
10	Practice	133	0.69

11	Interview	128	0.86
12	Participant	114	0.43
13	Foreign language	96	1.98
14	Paper	91	1.26
15	Language learning	90	0.71

Methodological phrases like "data" (188), "interview" (128), "participant" (114), and "questionnaire" (which appear in clusters but are not in the top 15) imply a preference for mixed-method or qualitative techniques. "Skill" (187) and "practice" (133), on the other hand, emphasise improving student competencies and teaching methods. It is confirmed that multimodality is frequently used in acquisition-focused pedagogies by the existence of "language learning" (90). All things considered, the keyword landscape is a rich field for practice and research because it demonstrates a balanced concern with pedagogy, learner outcomes, research design, and disciplinary precision. The prominence of methodological keywords such as "interview," "participant," and "data" suggests a strong reliance on qualitative and mixed-method approaches in multimodal research, indicating that large-scale quantitative investigations into multimodal writing remain comparatively underrepresented in the field.

3.3.1 Co-Occurrence Analysis by Clusters

Education, English, language, learner, teacher, foreign language, language learning, and practice are all included in Cluster 1, which provides the pedagogical underpinning for the study of multimodal language writing. This cluster focuses on the pedagogical and structural aspects of incorporating multimodality into language learning. Curriculum creation, pedagogical practices, and teacher training are frequently discussed, reflecting an emphasis on the roles of both teachers and students, particularly in formal learning situations.

The inclusion of the terms "foreign language" and "language learning" indicates that this cluster covers both native and non-native situations, such as classes teaching English as a second or foreign language (ESL/EFL). The word "practice" is significant because it suggests a focus on practical application, with multimodality actively incorporated into teaching strategies rather than merely theoretical. To scaffold language learning and boost learner engagement, scholars in this cluster frequently examine how teachers use multimodal resources (such as digital platforms, visual aids, and body language). Investigative focus then shifts to how students react to and adjust to these techniques. The foundation of multimodal studies in education, this cluster emphasises the didactic link between teaching and learning in multimodal environments.

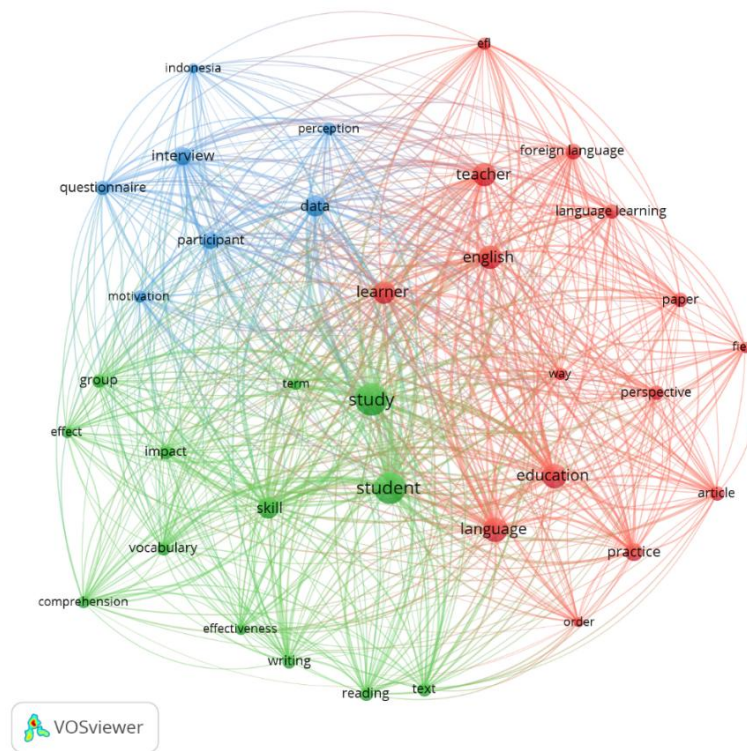


Figure 4. Co-Occurrence Analysis (VOSviewer Visualisation)

With a strong emphasis on how multimodal interventions affect students' learning outcomes and academic performance, Cluster 2 revolves around keywords such as study, student, skill, writing, impact, group, and text. This cluster reflects research that, especially in the domains of writing and collaborative learning, moves the focus from the delivery of instruction to learner achievement and reaction. The fact that "writing" and "skill" frequently co-occur indicates that researchers in this cluster are especially interested in how multimodal

methods improve literacy development, particularly in higher-order thinking tasks such as academic or argumentative writing. The terms "impact" and "study" refer to an expanding corpus of empirical research that assesses the efficacy of multimodal pedagogies either quantitatively or qualitatively.

In the meantime, collaborative learning settings, where peer interaction and group-based knowledge production are supported by multimodal resources, are reflected in the appearance of "group." In this context, "text" is probably understood to encompass more than just written words; it can also refer to interactive, digital, and visual forms. This cluster, which documents the effects of exposure to various styles of information presentation on student motivation, comprehension, and skill acquisition, thereby emphasises the learner-centred aspect of multimodal education. It provides solid proof of the quantifiable advantages of multimodality in language learning by bridging the gap between pedagogy and assessment.

Cluster 3, which forms the methodological foundation of research in multimodal language writing, comprises the keywords data, participant, interview, and questionnaire. This cluster focuses on the methods researchers use to collect and evaluate data to understand the impacts, attitudes, and challenges of multimodal education. A strong preference for qualitative and mixed-method techniques is indicated by the frequency of the terms "participant" and "interview," with many studies depending on learner and instructor perspectives to contextualise findings. Because it documents the research methods that support assertions about efficacy, engagement, and pedagogical value, this cluster is especially important in establishing the legitimacy and credibility of the field.

The word "questionnaire" implies the use of organised instruments to collect feedback on multimodal practices, while "data" serves as an umbrella term encompassing both qualitative narratives and quantitative results. Understanding student experiences, instructional effectiveness, and institutional preparedness for multimodal integration are frequently the goals of these studies. This cluster is unique in that it emphasises methodology over content, highlighting the importance of sound, morally decent research practices for the development and expansion of multimodal strategies in education. It supports the other groupings by providing empirical evidence for pedagogical and outcome-based insights.

Table 5. Co-Occurrence Analysis of Keywords

Cluster No and Colour	Cluster Label	Number of Keywords	Representative Keywords
Cluster 1 (Red)	Pedagogical Foundations and Language Teaching	15	"education", "English", "language", "learner", "teacher", "foreign language", "language learning", "practice"
Cluster 2 (Green)	Learning Outcomes and Academic Performance	13	"study", "student", "skill", "impact", "group", "writing", "text"
Cluster 3 (Blue)	Empirical Methods and Participant-Centred Inquiry	7	"data", "participant", "interview", "questionnaire"

4. Discussion

Diverse educational aims, theoretical stances, and methodological approaches have impacted the constantly changing research landscape at the nexus of multimodality and English language writing, according to the bibliometric data. Key thematic anchors are reflected in the performance analysis, which highlights significant contributions such as those of Tai and Wei (2020) on translanguaging techniques and of Shadiev and Yang (2020) on technology-enhanced learning. Coherent clusters centred on vocabulary development, digital engagement, and EMI pedagogies are evident in bibliographic coupling (Teng, 2022; Aizawa et al., 2020; Sahan et al., 2021). Three study strands are further supported by keyword co-occurrence analysis: (1) academic outcomes (Yulian, 2021), (2) educational practices (Slaughter & Cross, 2020), and (3) methodological innovation (Ou et al., 2024; Zhou & Mann, 2021).

According to Kelly and Hou (2022) and Kim and Kim (2021), these findings point to a theoretical shift toward multimodal, inclusive, and learner-centred pedagogies that include casual digital learning, translanguaging, and AI-supported communication. Future studies should examine AI technologies, culturally responsive pedagogy, and cross-linguistic abilities as multimodal literacy becomes increasingly essential to language instruction. This will help to ensure that multimodality is both pedagogically sound and accessible.

4.1 Theoretical Implications

The study's findings, illuminating the developing conceptual frameworks and intellectual underpinnings that support ESP, have important theoretical implications for writing in multimodal language training. Academics such as Cope and Kalantzis (2000) and Kress and van Leeuwen (2006) argue that writing is now a multimodal social practice immersed in real-world, technologically mediated environments rather than a linear, text-only practice. Works like Shadiev and Yang (2020) and Teng (2022), which emphasise the influence of media-rich environments and technology-enhanced input on learner engagement and vocabulary retention, provide strong support for this viewpoint.

According to emerging theoretical frameworks such as social semiotics, posthumanist literacy views (Ou et al., 2024), and translanguaging theory (Tai & Wei, 2020), learners increasingly create meaning across verbal, visual, aural, and spatial modes. These results support a paradigm change that views students as multimodal creators rather than passive consumers. Plurilingual and culturally situated reading practices are further highlighted by research by Zhou and Mann (2021) and Slaughter and Cross (2020), highlighting the necessity for theory to take linguistic hybridity and global-local intersections into account.

Furthermore, the popularity of qualitative designs (such as participant-focused studies and interviews) supports student voice and agency and is consistent with Vygotskian sociocultural theory. As essential components of writing development, digital literacies, affective involvement, and intercultural communication must be incorporated into the field's theoretical framework.

4.2 Practical Implications

For educators and institutions looking to implement multimodal techniques in writing instruction, this study offers practical guidance. Words like student, teacher, and language learning are frequently found in keyword analyses, consistent with research by Yulian (2021) and Ariantini et al. (2021), which show that multimodal strategies, such as flipped classrooms and social media integration, improve learner motivation and comprehension.

The findings of Teng (2022) and Lee (2023), which showed that vocabulary and critical thinking were enhanced by game-enhanced tools and captioned movies, should be incorporated into classroom methods. To promote student agency and digital fluency, educators are urged to use AI-assisted writing platforms (Ou et al., 2024) and translanguaging techniques (Tai & Wei, 2020). These approaches align with Kelly and Hou (2022), who stress the use of digital technologies and machine translation to empower EAL learners.

Curriculum designers should encourage tech-enabled, open-access learning settings, and assessment frameworks need to change to incorporate interactive, visual, and audio outputs (Gorter et al., 2021). Moreover, teacher-led classroom research is required to document multimodal efficacy, using empirical methods such as qualitative interviews and questionnaires (Zhou & Mann, 2021). All things considered, the study supports multimodality as a realistic requirement for fair, future-ready English language instruction.

5. Conclusion

By thoroughly assessing the academic landscape of multimodality in language writing from 2020 to 2024, this bibliometric analysis reveals a dynamic, multidisciplinary topic undergoing substantial change. While bibliographic coupling revealed four main research clusters ranging from technology-enhanced learning to translanguaging and EMI pedagogies, performance analysis identified the key contributors, sources, institutions, and nations driving this scholarly conversation. Multimodal techniques are firmly ingrained in both theoretical development and classroom practice, as evidenced by the co-occurrence analysis, which also identified three conceptual groupings: pedagogical foundations, learning outcomes, and research procedures.

Rather than evaluating instructional effectiveness, this study demonstrates how multimodality in English language writing has been framed, theorised, and investigated in recent scholarship. The findings show a clear shift in research attention from text-centred writing toward digitally mediated, multilingual, and socially situated approaches, as reflected in dominant publication clusters and keyword patterns.

By mapping the intellectual structure of the field, this bibliometric analysis provides a reference framework for future empirical studies, theoretical refinement, and methodological diversification. Future research may build on these findings by conducting targeted empirical investigations, comparative regional analyses, or longitudinal studies that examine how multimodal writing practices are enacted across educational contexts. In this way, the present study contributes to a clearer understanding of research trajectories rather than pedagogical outcomes, supporting more coherent and evidence-informed scholarship in English language writing.

Generative AI Statement

During the preparation of this study, we employed AI tools, including ChatGPT, to improve the article's readability, and Grammarly to ensure grammatical accuracy. Both tools were used solely for language editing and stylistic refinement. All data selection, analytical decisions, interpretation of results, and scholarly arguments were conducted entirely by the authors. The authors take full responsibility for the accuracy, originality, and integrity of the manuscript.

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Authors' contributions

LSP: conception and design of work; RWMM: data analysis; EAR: drafting the article; FSCY: interpretation of data; KFN: critical revision of the article; MZM: supervision; CA: formatting and rewording.

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References

- Aizawa, I., Rose, H., Thompson, G., & Curle, S. (2020). Beyond the threshold: Exploring English language proficiency, linguistic challenges, and academic language skills of Japanese students in an English medium instruction programme. *Language Teaching Research*, 27(4), 837-861. <https://doi.org/10.1177/1362168820965510>
- Ariantini, K. P., Suwastini, N. K. A., Adnyani, N. L. P. S., Dantes, G. R., & Jayantini, I. G. A. S. R. (2021). Integrating social media into English language learning: How and to what benefits according to recent studies. *NOBEL: Journal of Literature and Language Teaching*, 12(1), 91-111. <https://doi.org/10.15642/NOBEL.2021.12.1.91-111>
- Arslan, S. (2020). Multimodal writing to promote global competence for EFL learners. *Sakarya University Journal of Education*, 10(3), 589-608. <https://doi.org/10.19126/suje.777878>
- Chaturbhuj, S. B., & Sadik Batcha, M. (2022). Bibliographic coupling and types of centralities: A review of ASME journals-2000 to 2020. *COLNET Journal of Scientometrics and Information Management*, 16(1), 161-186. <https://doi.org/10.1080/09737766.2022.2063090>
- Chen, R., Gong, Y., Liu, Y., & Cheng, W. (2023). A bibliometric and content analysis of strategy-based instruction in second or foreign language teaching from 2000 to 2021. *SAGE Open*, 13(1), 21582440231159546. <https://doi.org/10.1177/21582440231159546>
- Christian, I. S., Rohmah, Z., & Jalaluddin, I. (2024). Exploring studies on multimodal literacy in English learning: A bibliometric analysis. *JEELS (Journal of English Education and Linguistics Studies)*, 11(2), 821-848. <https://doi.org/10.30762/jeels.v11i2.3681>
- Cohn, N., & Schilperoord, J. (2024). *A multimodal language faculty: A cognitive framework for human communication*. Bloomsbury Academic. <https://doi.org/10.5040/9781350404861>
- Cope, B., & Kalantzis, M. (Eds.). (2000). *Multiliteracies: Literacy learning and the design of social futures*. Psychology Press.
- Gorter, D., Cenoz, J., & der Worp, K. V. (2021). The linguistic landscape as a resource for language learning and raising language awareness. *Journal of Spanish language teaching*, 8(2), 161-181. <https://doi.org/10.1080/23247797.2021.2014029>
- Helingo, A., & Nurpahmi, S. (2024). Mapping the evolution: A bibliometric dive into TPACK research trends (2020-2023). *Journal of English Teaching and Linguistic Issues (JETLI)*, 3(2), 84-95. <https://doi.org/10.58194/jetli.v3i2.1837>
- Ismailov, M., Chiu, T. K., Dearden, J., Yamamoto, Y., & Djalilova, N. (2021). Challenges to internationalisation of university programmes: A systematic thematic synthesis of qualitative research on learner-centred English Medium Instruction (EMI) pedagogy. *Sustainability*, 13(22), 12642. <https://doi.org/10.3390/su132212642>
- Kelly, R., & Hou, H. (2022). Empowering learners of English as an additional language: translanguaging with machine translation. *Language and education*, 36(6), 544-559. <https://doi.org/10.1080/09500782.2021.1958834>
- Kim, S., & Kim, H. C. (2021). The benefits of YouTube in learning English as a second language: a qualitative investigation of Korean freshman students' experiences and perspectives in the US. *Sustainability*, 13(13), 7365. <https://doi.org/10.3390/su13137365>
- Kress, G., & van Leeuwen, T. (2006). *Reading images. The grammar of visual design* (2nd ed.). Routledge. <https://doi.org/10.4324/9780203619728>
- Lee, S. M. (2023). Factors affecting incidental L2 vocabulary acquisition and retention in a game-enhanced learning environment. *ReCALL*, 35(3), 274-289. <https://doi.org/10.1017/S0958344022000209>
- Li, Y. (2024). Advancing language education through multimodality: Insights from a bibliographic analysis. *Forum for Linguistic Studies*,

- 6(3), 447-466. <https://doi.org/10.30564/fls.v6i3.6691>
- Li, Y., Ying, S., Chen, Q., & Guan, J. (2022). An experiential learning-based virtual reality approach to foster students' vocabulary acquisition and learning engagement in English for geography. *Sustainability*, *14*(22), 15359. <https://doi.org/10.3390/su142215359>
- Lim, J., & Kessler, M. (2024). Multimodal composing and second language acquisition. *Language Teaching*, *57*(2), 183-202. <https://doi.org/10.1017/S0261444823000125>
- Lusta, A., Demirel, Ö., & Mohammadzadeh, B. (2023). Language corpus and data driven learning (DDL) in language classrooms: A systematic review. *Heliyon*, *9*(12). <https://doi.org/10.1016/j.heliyon.2023.e22731>
- Ma, T. J., Lee, G. G., Liu, J. S., Lan, R., & Weng, J. H. (2022). Bibliographic coupling: a main path analysis from 1963 to 2020. *Information Research*, *27*(1), 918. <https://doi.org/10.47989/irpaper918>
- McKinley, J., & Rose, H. (2022). English language teaching and English-medium instruction: Putting research into practice. *Journal of English-Medium Instruction*, *1*(1), 85-104. <https://doi.org/10.1075/jemi.21026.mck>
- Mihai, M., Albert, C. N., Mihai, V. C., & Dumitras, D. E. (2022). Emotional and social engagement in the English language classroom for higher education students in the COVID-19 online context. *Sustainability*, *14*(8), 4527. <https://doi.org/10.3390/su14084527>
- Muñoz, C., & Cadierno, T. (2021). How do differences in exposure affect English language learning? A comparison of teenagers in two learning environments. *Studies in Second Language Learning and Teaching*, *11*(2), 185-212. <https://doi.org/10.14746/ssl.2021.11.2.2>
- Nurohmah, H., & Sundasewu, R. U. (2024). Research trends in multimodal critical discourse analysis: A bibliometric analysis. *Tamaddun*, *23*(1), 149-163. <https://doi.org/10.33096/tamaddun.v23i1.700>
- Ou, A. W., Ståhr, C., & Malmström, H. (2024). Academic communication with AI-powered language tools in higher education: From a post-humanist perspective. *System*, *121*, 103225. <https://doi.org/10.1016/j.system.2024.103225>
- Ou, W. A., & Gu, M. M. (2022). Competence beyond language: translanguaging and spatial repertoire in teacher-student interaction in a music classroom in an international Chinese University. *International Journal of Bilingual Education and Bilingualism*, *25*(8), 2741-2758. <https://doi.org/10.1080/13670050.2021.1949261>
- Porto, M., Golubeva, I., & Byram, M. (2021). Channelling discomfort through the arts: A Covid-19 case study through an intercultural telecollaboration project. *Language Teaching Research*, *27*(2), 276-298. <https://doi.org/10.1177/13621688211058245>
- Rahmanu, I. W. E. D., & Molnár, G. (2024). Multimodal immersion in English language learning in higher education: A systematic review. *Heliyon*. <https://doi.org/10.1016/j.heliyon.2024.e38357>
- Rajamanickam, S., Che'rus, R., Raji, M. N. A., Mina, H., & Vebrianto, R. (2024). Global trends in vocational training education: A Bibliometric analysis. *International Journal of Research and Innovation in Social Science*, *8*(12), 4548-4564. <https://doi.org/10.47772/ijriss.2024.8120382>
- Ramos, L. B., & Musanti, S. I. (2021). "I don't like English because it is jard." Exploring multimodal writing and translanguaging practices for biliteracy in a dual language classroom. *NABE Journal of Research and Practice*, *11*(1-2), 32-45. <https://doi.org/10.1080/26390043.2021.1974803>
- Rinekso, A. B., Rodliyah, R. S., & Pertiwi, I. (2021). Digital literacy practices in tertiary education: A case of EFL postgraduate students. *Studies in English Language and Education*, *8*(2), 622-641. <https://doi.org/10.24815/siele.v8i2.18863>
- Sahan, K., Rose, H., & Macaro, E. (2021). Models of EMI pedagogies: At the interface of language use and interaction. *System*, *101*, 102616. <https://doi.org/10.1016/j.system.2021.102616>
- Sánchez, A. (2023). Multimodal writing in the Spanish classroom: A pedagogical tool to empower and heal from the Covid-19 pandemic. *Advances in Social Sciences Research Journal*, *10*(6), 545-553. <https://doi.org/10.14738/assrj.106.14760>
- Shadiev, R., & Yang, M. (2020). Review of studies on technology-enhanced language learning and teaching. *Sustainability*, *12*(2), 524. <https://doi.org/10.3390/su12020524>
- Slaughter, Y., & Cross, R. (2020). Challenging the monolingual mindset: Understanding plurilingual pedagogies in English as an Additional Language (EAL) classrooms. *Language Teaching Research*, *25*(1), 39-60. <https://doi.org/10.1177/1362168820938819>
- Song, Y., Lei, L., Wu, L., & Chen, S. (2023). Studying domain structure: a comparative analysis of bibliographic coupling analysis and co-citation analysis considering all authors. *Online Information Review*, *47*(1), 123-137. <https://doi.org/10.1108/oir-12-2020-0540>
- Sun, Y., & Lan, G. (2023). A bibliometric analysis on L2 writing in the first 20 years of the 21st century: Research impacts and research trends. *Journal of Second Language Writing*, *59*, 100963. <https://doi.org/10.1016/j.jslw.2023.100963>
- Sun, Y., & Lin, M. (2025). A bibliometric analysis of metonymy in SSCI-indexed research (2000–2023): retrospect and prospect. *Frontiers in Psychology*, *16*, 1499563. <https://doi.org/10.3389/fpsyg.2025.1499563>
- Tai, K. W., & Wei, L. (2020). Bringing the outside in: Connecting students' out-of-school knowledge and experience through

- translanguaging in Hong Kong English medium instruction mathematics classes. *System*, 95, 102364. <https://doi.org/10.1016/j.system.2020.102364>
- Teng, M. F. (2022). Incidental L2 vocabulary learning from viewing captioned videos: Effects of learner-related factors. *System*, 105, 102736. <https://doi.org/10.1016/j.system.2022.102736>
- Wenjuan, S., & Abdullah, R. (2024). English as a foreign language (EFL) writing instruction: A review of bibliometric analysis. *English Language Teaching*, 17(10), 1-67. <https://doi.org/10.5539/elt.v17n10p67>
- Wider, W., Jiang, L., Lin, J., Fauzi, M. A., Li, J., & Chan, C. K. (2024). Metaverse chronicles: a bibliometric analysis of its evolving landscape. *International Journal of Human-Computer Interaction*, 40(17), 4873-4886. <https://doi.org/10.1080/10447318.2023.2227825>
- Yihu, F., & Hongyuan, W. (2023). Research on the application of multimodal teaching in senior English writing. *International Journal of Academic Research in Progressive Education and Development*, 12(3), 528-537. <https://doi.org/10.6007/ijarped/v12-i3/18551>
- Yu, S., Di Zhang, E., & Liu, C. (2024). Research into practice: Digital multimodal composition in second language writing. *Language Teaching*, 1-17. <https://doi.org/10.1017/s0261444824000375>
- Yulian, R. (2021). The flipped classroom: Improving critical thinking for critical reading of EFL learners in higher education. *SIELE JOURNAL*, 8(2), 508-522. <https://doi.org/10.24815/siele.v8i2.18366>
- Zhou, X. E., & Mann, S. J. (2021). Translanguaging in a Chinese university CLIL classroom: Teacher strategies and student attitudes. *Studies in Second Language Learning and Teaching*, 11(2), 265-289. <https://doi.org/10.14746/ssl1t.2021.11.2.5>