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#### **ARTICLE**

# Developing Listening Comprehension Using Podcasts in Second Language Education: A Systematic Overview of Recent Pedagogical Innovations (2019–2025)

Nozima Musayeva <sup>1\* (1)</sup>, Gulnoza Sabirova <sup>1 (1)</sup>, Gulbaxor Xadjikurbanova <sup>2</sup>, Saodat Yuldasheva <sup>2 (1)</sup>, Azamjon Akhmadaliyev <sup>1 (1)</sup>, Jamila Djumabaeva <sup>3 (1)</sup>

#### **ABSTRACT**

This study illustrates a bibliometric analysis of scholarly literature on podcasting in second language (L2) listening skill development from 2019 to 2025, using the Scopus database. The research aims to identify publication trends, top authors, notable journals, frequently used keywords, and patterns of scholarly collaboration related to podcast-assisted listening instruction. A total of 1033 documents were retrieved from Scopus, of which 74 were reanalysed in depth related to Linguistics. The data was analysed using Excel for initial categorisation and VOSviewer software for visualising keyword co-occurrence and co-authorship networks. Keyword analysis revealed a strong connection between podcasting, metacognitive strategies, digital learning environments, and authentic input in Second Language (L2) contexts. Co-authorship maps revealed growing international collaboration among researchers and institutions worldwide. The analysis offers a macro-

#### \*CORRESPONDING AUTHOR:

Nozima Musayeva, Interfaculty Department of Russian Language, Samarkand State University named after Sharof Rashidov, Samarkand 141500, Uzbekistan; Email: n\_musayeva@tiiame.uz

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<sup>&</sup>lt;sup>1</sup> Teaching Theory and Methodology Department, Tashkent Institute of Irrigation and Agricultural Mechanization Engineers National Research University, Tashkent 100000, Uzbekistan

<sup>&</sup>lt;sup>2</sup> Interfaculty Department of Russian Language, Samarkand State University named after Sharof Rashidov, Samarkand 141500, Uzbekistan

<sup>&</sup>lt;sup>3</sup> English Linguistic Department, National University of Uzbekistan named after Mirzo Ulugbek, Tashkent 1000000, Uzbekistan

level overview of how podcasts are integrated into L2 listening instruction, identifying gaps for future research. The study also recommends future exploration of AI-enhanced podcast platforms, personalized listening instruction, and inclusive designs that accommodate learners with diverse needs. These findings contribute to a better understanding of current practices in digital listening pedagogy and offer direction for future innovations in language education.

Keywords: Podcasting; Second Language Acquisition (SLA); Listening Skills; Bibliometric Analysis; EFL Learners

## 1. Introduction

In recent decades, second language acquisition (SLA) has undergone significant changes toward learner-centred, technology-enhanced instruction, with a growing emphasis on listening comprehension considered a fundamental language skill. Listening can be defined as a complex process of receiving, interpreting, recalling, evaluating, and responding to both verbal and nonverbal messages. Listening is a developmental skill that decodes the meanings of spoken words [1]. Decades ago, listening was not adequately valued in language education, often being perceived as a passive ability that develops independently without direct instruction<sup>[2]</sup>. It is highly believed that listening is the most essential skill for language learning because it is used more frequently in everyday life and tends to develop more rapidly than other language skills. As it has often been underestimated, paying less attention compared to other skills, it has been called the "Cinderella skill," followed by its elder sister, "speaking" [3]. However, this has gradually changed due to the rise of digital tools, particularly podcasts, which have redefined how listening can be taught, practised, and assessed in formal and informal learning environments. Podcasts are audiobased digital resources distributed online, offering authentic, engaging, and diverse content that mirrors natural speech. Their flexibility, portability and cultural richness effectively enhance listening comprehension<sup>[4]</sup>. Podcasting is a mobile learning technique in which audio or video broadcasts are automatically downloaded to a device, enabling synchronisation with a portable device. The term "podcast" is derived from the widely used "iPod" and "broadcast" [1]. They are accessible on portable devices or computers, making them an optimal educational resource for learners who lack access to portable devices. Notably, language learners can access podcasts at any time, control playback as needed, and simultaneously engage with content that aligns with their interests and proficiency levels. This creates a self-paced

and autonomous learning environment, where listening becomes interactive and meaningful<sup>[5]</sup>. Podcast is an enjoyable method of enhancing English language acquisition, alongside viewing films or listening to music, to improve proficiency in English as a foreign language [6]. Moreover, podcasts have demonstrated significant potential in enhancing vocabulary acquisition, pronunciation, and listening fluency, especially when integrated into structured language curricula<sup>[7]</sup>. The pedagogical implications of iTunes U and podcast lectures as a form of mobile learning (m-learning) are explored. Platforms like iTunes U offer flexibility, accessibility, and increased student motivation due to their user familiarity; however, the educational effectiveness of replacing in-class lectures with podcasts remains unclear [8]. The flexibility of podcasts—allowing for replay and pausing—raises questions about whether students will take notes more effectively or treat podcasts casually, much like listening to music. Previous studies have shown that students favour using podcasts to revise existing notes [9], while other research suggests a continued preference for traditional lectures over podcast-only formats [10]. Notably, teacher enthusiasm significantly enhances learners' perception of educational podcasts, making the content more engaging, enjoyable, and motivating [11].

With increasing demand for flexible and inclusive education, podcasting has emerged as a viable solution for language instruction in low-resource and remote settings, such as rural schools, refugee settings, or underfunded institutions, where access to high-speed internet, modern devices, trained teachers, or updated textbooks may be severely limited. Unlike streaming video or interactive platforms that require robust infrastructure, podcasts can be downloaded once and accessed offline, making them highly suitable for learners with limited digital connectivity. They are cost-effective, requiring only basic mobile devices or MP3 players, and they support asynchronous learning, allowing students to listen at their own pace and on their schedule. In a case study involving English as a Foreign Language (EFL) learners, the integration of pod-

casts significantly improved speaking fluency and motivation, even in digitally constrained environments [12]. Additionally, it is highlighted that podcasts reduce learner anxiety and cognitive overload, supporting a more inclusive and learner-centred pedagogical model<sup>[13]</sup>. During the pandemic, podcasts have proven to be a highly effective tool for improving listening proficiency. Podcasts can be produced using simple, free tools and uploaded to platforms accessible to students, providing asynchronous, reusable content that can be used across multiple courses [14]. From a research perspective, the surge of interest in podcasting is reflected in a growing body of academic literature across various disciplines, including applied linguistics, educational technology, and instructional design. While qualitative research has highlighted the beneficial impacts of podcasts in educational settings, there has been insufficient systematic bibliometric analysis mapping research trends and academic networks in linguistics. Bibliometric analysis employs statistical methods to collect publications related to a specific research topic by using selected keywords. It is crucial to note, however, that bibliometric analysis has its limitations, as the quantity of publications does not necessarily indicate the importance of a research area [15]. Still, bibliometrics is useful for analyzing research trends, whereas narrative literature reviews provide a more comprehensive gathering of scientific knowledge and help identify research gaps in a specific domain. Various aspects of environmental science have been investigated using bibliometric data. To clarify, research on water resources [16], groundwater management [15] and the fields of language and linguistics [17] or education [18] have been examined, respectively.

The analysis aims to investigate prominent themes and critical domains of "listening" and "podcast" within English language issues, and to offer novel insights into the trends and priorities of the English language with the help of historical bibliometric data. This evaluation examines all articles containing the keywords "listening" and "podcast" inside the Scopus database. This research defined contemporary trends to assess the prevalence of listening and podcasting across various countries over five years, from 2019 to 2025.

#### 2. Materials and Methods

This bibliometric overview involved searching for publications on world knowledge through research conducted

using the widely used online bibliographic database Scopus. The search spanned the period from 2019 to 2025, focusing on podcasts that enhance listening skills across various countries in language education. The analysis was conducted in March 2025. Seventy-four publications were selected for further examination regarding the development of listening skills with podcasts. The analysis used CSV files, Microsoft Excel 2021, RIS, VOS viewer, and a Map chart for data processing and visualization. During the search process, relevant data were organised into a spreadsheet, incorporating keywords such as "listening" and "podcast," as well as all articles published in English. The search criteria included articles addressing "listening" categorized as document type "article". The temporal parameters focus on areas including Linguistics, Language Linguistics, Education, Educational Research, and Scientific Discipline. Figure 1 illustrates the methodological framework used in this research.

# 2.1. Article Review and Study Eligibility Criteria

Initially, a systematic method for data retrieval was carried out using the Scopus database. The objective was to collect peer-reviewed literature regarding the enhancement of listening skills in language education. To ensure the search's relevance and precision, specific keywords were used, focusing on "listening" and "podcast." All gathered documents were filtered by language, limiting the selection to articles published exclusively in English to ensure consistency in the analysis. Subsequently, the inclusion criteria were narrowed to concentrate on scholarly works classified as document types, including articles, conference proceedings, and reviews, thus excluding book chapters and other non-peer-reviewed formats. The search spanned from 2019 to 2025, enabling the inclusion of both foundational and contemporary studies that represent evolving trends and the integration of technology in teaching listening skills through podcasts. The disciplinary focus was aimed at subject areas such as Linguistics, Language and Linguistics, and Education, ensuring that the chosen studies are pertinent to language education and related teaching methods. The results were carefully compiled into a structured spreadsheet for further analysis. This database contained essential metadata, such as article titles, author(s), publication year, highly cited

articles, affiliations, and key findings. **Figure 1** depicts the methodological framework used during the research process,

outlining the sequential stages of keyword identification, filtering, and categorization.

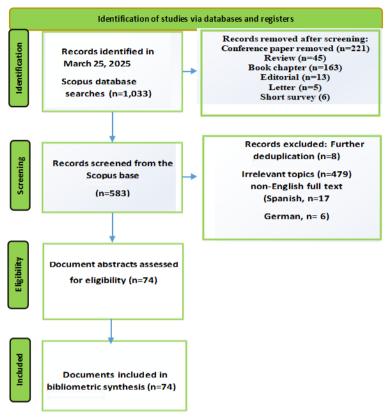


Figure 1. Methodology Flowchart for the Research.

#### 2.2. Bibliometric Review

CSV-formatted data was loaded into Excel for bibliometric analysis, following a thorough process of error checking. A review was conducted to identify the most significant articles and their respective authors. The analysis encompassed several aspects of the search results, including yearly publication counts, document types, leading papers and journals, primary funding sources, distribution of subject areas and journals, as well as country and institutional affiliations. The concluding stage involved analyzing co-authors and the co-occurrence of keywords to explore the components and structure of knowledge within the research by identifying groups of frequently used keywords in the papers.

#### 3. Results

This research analysed the publications based on several criteria. Firstly, the analysis starts with the annual publi-

#### cations:

The given data (**Figure 2**) show a gradual increase from 136 articles in 2019 to a peak of 210 in 2023, indicating growing scholarly interest in them. A decline follows in 2024, with 184 articles, and drops sharply in 2025, with 12 articles, likely due to incomplete indexing for the current year. Overall, the trend highlights a significant rise in research activity up to 2023, reflecting the increasing integration of podcasting in second language education.

The given chart (**Figure 3**) presents data on the distribution of academic articles concerning listening skills across different publishers, highlighting the most prominent publishers in the field of second language education. It is evident that SAGE Publications Ltd. holds the first place, with 16 publications, making it the most dominant source of research output in this field. The next place belongs to Routledge, followed by 12 publications, while Elsevier Ltd. holds third place with 10 articles written about listening skills devel-

opment. The contribution from Springer is comparatively minor, with four articles, and both Cambridge University Press and Blackwell Publishing Ltd have published two articles relatively. The chart illustrates that the majority of the research is published in the top three publishers, highlighting that these venues are vital for scholarly work on L2 language education. The visual representation also asserts the relatively lower engagement of other reputable academic publishers in this specific domain.

The chart (**Figure 4**) illustrates the top institutional affiliations contributing to research on podcasting and secondlanguage listening. Obviously, the National Institute of Education leads with 13 articles, Nanyang Technological

University with 12, and the University of Oxford with 11 publications. Institutions, namely Qassim University and the University of Haifa, each contributed 10 articles to the development of listening skills. Several other institutions, including Stockholm University, Macquarie University, Guangdong University of Foreign Studies, the University of California, Irvine, and the Chinese University of Hong Kong, each published eight significant articles. This distribution suggests a diverse international research landscape, with strong representation from universities in Asia, Europe, the Middle East, and North America, indicating a broad global interest in podcast-enhanced second language education.

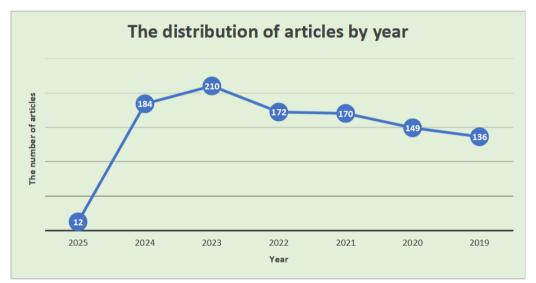


Figure 2. The Number of Papers on Listening Skills Development by the Year of Publication.

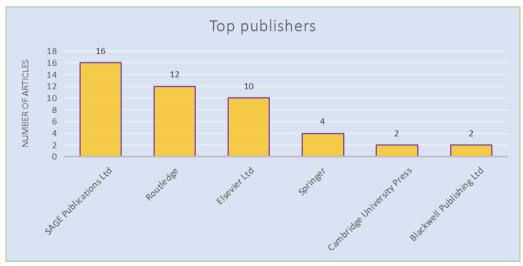


Figure 3. Top Publishers with Their Articles Related To Listening Skills.

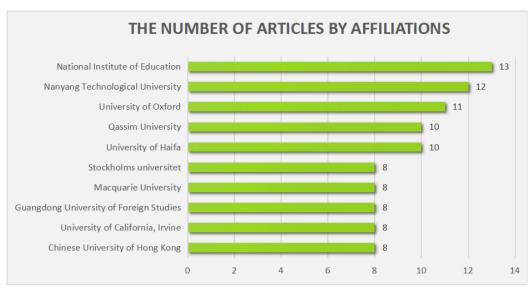


Figure 4. Top Universities with Their Papers.

The bar chart presents data on the leading academic journals that publish research on podcasting in educational contexts (see Figure 5). It can be seen that the journal System is the most prolific, with 23 publications, significantly ahead of the others. In the second place, SAGE Open follows with 13 articles, while the International Journal of Language Testing, Language Testing, and Frontiers in Education each published 12 articles. Journals such as Language Teaching Research, RELC Journal, and Theory and Practice in Language Studies contributed 10 articles each. Meanwhile, the Asian EFL Journal and CALL-EJ published nine articles respectively. This distribution highlights that most podcasting-related research in education appears in journals focused on language learning, assessment, and technologyenhanced instruction, reflecting the interdisciplinary nature of this emerging sphere.

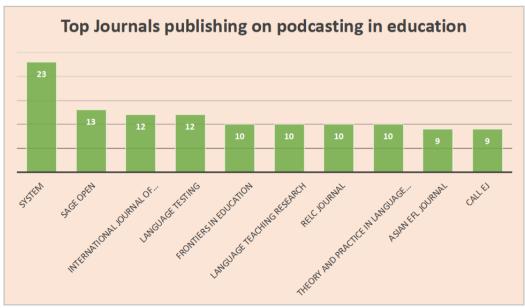


Figure 5. Top Journals with Their Publications on Listening Skills Development.

From the data in **Figure 6**, it can be observed that the language listening research are identified by their publicamost prolific authors in the field of podcasting and second tion counts. The highest number of publications belongs to

Aryadoust, V., with eight, followed by Hamada, Y. and Kim, Y.S.G., each contributing six articles. The next place belongs to Itzchakov, G., followed by five publications, while Beausoleil, E., Bozorgian, H., and Buchholz, J.M. each authored four articles. This distribution shows the key contributors

driving academic discourse in the area, with a small group of influential scholars producing a concentration of work. Their research is likely to play a crucial role in shaping current perspectives on integrating podcasts into second-language education.



Figure 6. The List of Top Authors.

The given map illustrates the geographical distribution of publications on podcasting in language education, based on Scopus-indexed data (see Figure 7). The United States leads significantly, with 241 publications, followed by the United Kingdom with 95, and China with 69. Other notable contributors include Australia (61), Iran (52), Japan (51), and Canada (39). Additional countries with substantial output include Indonesia and Turkey (38 each), and Spain (35) publications, respectively. The map highlights research activity in Anglophone and East Asian countries, reflecting both technological infrastructure and institutional focus on digital learning innovation. The presence of countries from the Middle East, Southeast Asia, and Europe also points to the growing global interest in podcast-based approaches to language education. This distribution suggests that the integration of podcasts into L2 instruction is a widespread, cross-cultural pedagogical trend.

The pie chart illustrates the distribution of document types among Scopus-indexed publications on podcasting in second-language education (see **Figure 8**). Most contributions are journal articles (n = 953), accounting for the dominant share of the literature. This is followed by conference papers (n = 56), showing a modest level of dissemination through academic conferences. Only 24 review papers were identified, suggesting that while empirical studies are prevalent, there is a relative scarcity of synthesised literature in the form of systematic or narrative reviews. It can be concluded that the large proportion of articles reflects a strong emphasis on original research. In contrast, the low number of reviews highlights an opportunity for future meta-analyses and comprehensive literature syntheses in this domain.

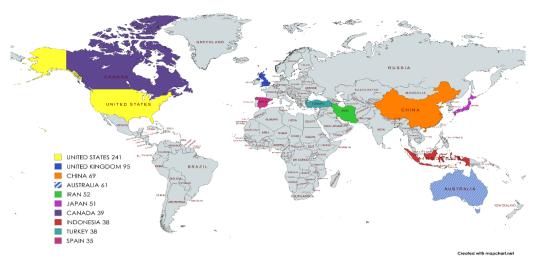


Figure 7. The top Ten Countries, Listed by the Number of Their Publications.

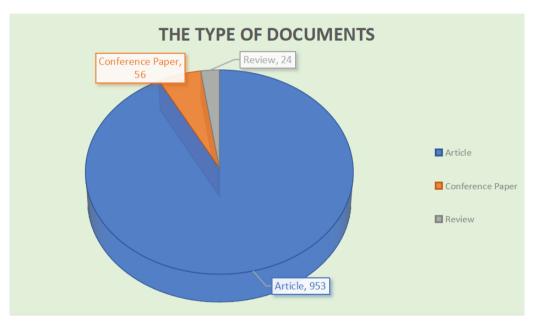


Figure 8. The Types of Documents.

The analysis (**Table 1**) of citation data highlights the most influential articles in L2 listening and language learning supported by podcasts. The most cited article is by Zhou & Thompson (Language Teaching Research), titled "The relationship between vocabulary knowledge and L2 reading/listening comprehension: A meta-analysis." It has 111 citations and emphasises the foundational link between vocabulary acquisition and comprehension in second language contexts. Following this, Zhou and Rose's study, "Evaluating Intelligent Personal Assistants for L2 Listening and Speaking Development" (Language Learning and Technology), has been cited 89 times, reflecting the growing

interest in AI-enhanced listening tools. Similarly, Zhang & Zhang's work on flipped learning for improving L2 listening and speaking (Innovation in Language Learning and Teaching) received 83 citations, underlining the effectiveness of blended pedagogies. Notably, Zhang and Graham appear twice, with studies on podcast consumption behaviour (New Media and Society, 76 citations) and the impact of video captioning on vocabulary and listening (Computer Assisted Language Learning, 69 citations), demonstrating a sustained scholarly focus on technology-mediated listening practices. Other significant works include those by Zhang L.J. & Shen Y. on podcast journalism and emotion (Journalism Practice,

47 citations) and Yang et al. on self-regulated listening in EMI contexts (System, 35 citations). Collectively, these publications show that highly cited research focuses on technology integration, learner autonomy, and intermodal com-

prehension. The data indicate the interdisciplinary appeal of podcasting in education, with top-cited research emerging from applied linguistics, educational technology, and media studies.

Table 1. The Analysis of Top-cited Articles.

Authors	thors Title of the Article		Source Title	Citation
Zhang S.; Zhang X.	The relationship between vocabulary knowledge and L2 reading/listening comprehension: A meta-analysis	2022	Language Teaching Research	111
Dizon G.	Evaluating intelligent personal assistants for L2 listening and speaking development	2020	Language Learning and Technology	89
Amiryousefi M.	The incorporation of flipped learning into conventional classes to enhance EFL learners' L2 speaking, L2 listening, and engagement	2019	Innovation in Language Learning and Teaching	83
Chan-Olmsted S.; Wang R.	Understanding podeast users: Consumption motives and behaviors	2022	New Media and Society	76
Hsieh Y.	Effects of video captioning on EFL vocabulary learning and listening comprehension	2020	Computer-Assisted Language Learning	69
Lindgren M.	Intimacy and Emotions in Podcast Journalism: A Study of Award-Winning Australian and British Podcasts	2023	Journalism Practice	47
Wolf M.C.; Muijselaar M.M.L.; Boonstra A.M.; de Bree E.H.	The relationship between reading and listening comprehension: shared and modality-specific components	2019	Reading and Writing	36
Zhou S.; Rose H.	Self-regulated listening of students at transition from high school to an English-medium instruction (EMI) transnational university in China	2021	System	35
Yabukoshi T.	Self-regulation and self-efficacy for the improvement of listening proficiency outside the classroom	Journal		34
Fathi J.; Derakhshan A.; Torabi S.	rabi S. Language Listening Anxiety and Self-Efficacy of Iranian 2  EFL Learners		SAGE Open	33
Masrai A.	Exploring the impact of individual differences in aural vocabulary knowledge, written vocabulary knowledge and working memory capacity on explaining L2 learners' listening comprehension	2020	Applied Linguistics Review	32
Emerick M.R.	Explicit teaching and authenticity in L2 listening instruction: University language teachers' beliefs	2019	System	31
Babayiğit S.; Shapiro L.	Component skills that underpin listening comprehension and reading comprehension in learners with English as first and additional language	2020	Journal of Research in Reading	30
Fouz-González J.	Podcast-based pronunciation training: Enhancing FL learners' perception and production of fossilised segmental features	2019	ReCALL	30
Hsu HL.; Chen H.HJ.; Todd A.G.	Investigating the impact of the Amazon Alexa on the development of L2 listening and speaking skills	2023	Interactive Learning Environments	29

The keyword analysis yielded a total of 256 keywords (see **Figure 9**). After excluding general keywords with low relevance scores and those with low occurrence, 46 items were finally identified. Each resulting keyword is represented as a node based on the total link strength, creating a network map of all keywords. The side of each node reflects the keyword's degree of importance. The network is centred on the term "listening comprehension," which stands out as the most dominant and tightly linked node, indicating its importance in contemporary academic discussions

from 2020 to 2022. It is noted that listening comprehension remains a key aspect of interest in language learning, particularly in relation to digital and blended educational technologies. Closely linked to this central node are clusters of terms thematically associated with it. For example, "listening strategies," "L2 listening," and "second language listening" are prominently linked, indicating a consistent interest in instructional methodologies and learner approaches that support listening skills and language skills. The presence of terms such as "listening anxiety," "listening self-efficacy,"

and "strategy instruction" illustrates the increasing incorporation of psychological and metacognitive dimensions in the understanding of listening processes. Notably, the keywords "podcasts" and "podcasting" exhibit significant connectivity to "listening comprehension," indicating their growing role as tools for second language (L2) instruction. Their co-occurrence with "blended learning," "EFL," and "grammar" suggests that podcasts are being explored not only for passive listening but also within broader pedagogical contexts, including grammar acquisition and multimodal instruction. The colour gradient of the nodes, ranging from blue (earlier publications) to yellow (more recent), reveals a temporal progression. The other terms, namely "metacognitive aware-

ness" and "China", appear in lighter shades, signifying a recent increase in regional and theoretical focus. The map also illustrates how auxiliary cognitive constructs, such as "working memory," "empathy," and "perception," are being investigated in relation to the development of listening skills. This reflects an interdisciplinary shift in which language acquisition is understood not merely as a linguistic process, but as a cognitive and affective experience.

Overall, the total link strength is 142, with 121 links. This map highlights the interdisciplinary and interconnected nature of the current research. Cognitive, affective, pedagogical, and technological variables converge in the study of podcast-supported listening instruction.

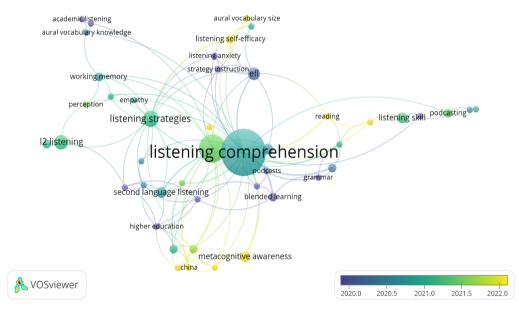


Figure 9. Network Map of Top Keywords Based on the Total Link Strength.

The picture shows the network map of the coauthorship among the top 68 authors. It consists of a total of 117 links and 23 clusters, containing 68 items. **Figure 10** above presents a co-authorship network visualization generated using VOSviewer. It maps the collaborative relationships among scholars who have made significant contributions to research on podcast-supported second language (L2) learning. Each node represents an individual author, with the size indicating their research prominence (e.g., number of publications or citations). The coloured clusters represent collaborative groupings, while proximity between nodes indicates the frequency and strength of co-authorship ties. At the centre of the network is Chen, Howard Hao-Jan, shown in green, who appears as the most prolific and central author in this dataset. His position and node size indicate a leading role in shaping the field, possibly through multiple high-impact publications or collaborations with other researchers across institutions. In the red cluster, authors Compton, Donald L. and Cho, Eunsoo, are closely linked, suggesting frequent co-authorship or participation in joint research projects. The presence of other authors, such as Shin, Sun-Young, Du, Guohui, and Abu Afifa, Haya M.J., in distinct clusters suggests the existence of multiple, relatively independent research hubs within the broader podcasting

and language learning literature. Authors such as Cheung, Mike W.-L., Cheung, Anisa, and Rose, Heath are situated in isolated or less connected parts of the network, indicating limited co-authorship with others in this specific topic area. This could reflect a degree of research fragmentation, where scholars investigate podcast-based learning in parallel but without extensive collaboration or shared frameworks. More-

over, the diversity in node colour implies varied institutional and geographic origins, reflecting the international interest in podcast-mediated learning. However, the relatively sparse connections between many clusters also suggest limited cross-institutional collaboration, which could hinder the development of a cohesive research agenda in this emerging field



Figure 10. Network Map of Co-Authors Based on the Total Link Strength.

#### 4. Discussion

The analysis indicates that interest in podcasting for developing second language (L2) listening comprehension has increased over a 6-year period, reaching a peak in terms of publications in 2023. This trend correlates with the sharp rise of digital and blended learning, as we live in a technology-driven era. Key themes include listening comprehension, listening strategies, and metacognitive awareness, with a focus on integrating technology and exploring the psychological aspects of second language (L2) listening. Learner-centred approaches are emphasised through concepts like listening anxiety and self-efficacy. The research is collaborative and international, with significant contributions from authors such as Aryadoust, Hamada, Kim, and Chen, as well as leading countries like the U.S., U.K., China, and Australia. Prominent journals for this research include System,

Language Teaching Research, and Language Learning and Technology, indicating the intersection of podcasting with educational technology and applied linguistics.

The analysis and summary of relevant literature are shown in **Table 2**.

From this analysis of literature, it can be highlighted that the growing role of innovative approaches, especially technology-enhanced learning, metacognitive strategy instruction, and positive psychology, plays a significant role in improving EFL learners' listening comprehension. Explicit strategy training enhanced students' metacognitive awareness<sup>[19]</sup>, and language learners with higher linguistic knowledge employed a wider range of strategies<sup>[24]</sup>. It is noted that some low-proficiency learners also employed effective strategies, emphasising the role of learner autonomy. The research indicates that podcasts enhance listening and pronunciation skills by providing authentic and engag-

ing content. Collaboration using podcasts has been proven to be more effective for vocabulary enhancement than for listening skills, highlighting the need for structured support [23]. Extensive Listening is a learner-centred approach that builds fluency without constant teacher input, which is applicable and suitable for autonomous or low-resource environments [22]. Combining TBLT with digital tools significantly enhanced listening and speaking, particularly in role-plays, underscoring the importance of task relevance [27]. It has been identified that, from a psychosocial perspective, incorporating positive psychology elements, such as hope

and gratitude, can increase engagement and reduce anxiety [28]. A new listening strategy questionnaire has been developed, identifying self-regulation as a key factor in success [26]. Obviously, meta-analysis presented a strong link between vocabulary knowledge and listening skills, with form recall tasks being the most predictive [25]. Despite these insights, some gaps remain. The majority of research is from high-income countries, and there is a lack of large-scale or long-term data. Obviously, the potential of AI-driven, adaptive podcast tools and their role in inclusive or multilingual contexts remains underexplored.

Table 2. Literature Review.

No	Types of Research	Participants	Key Findings	Source
1	Mixed-method exploratory case study	A group of 29 Thai freshman students are currently enrolled in an English as a Foreign Language (EFL) program.	The research revealed that direct teaching of metacognitive strategies led to a notable development in listening comprehension. It demonstrated metacognitive awareness across all five MALQ dimensions, including planning and evaluation, problem-solving, directed attention, mental translation, and personal knowledge. Additionally, three of these dimensions demonstrated a significant correlation with listening performance. Qualitative feedback indicated that students felt more conscious of their listening processes and had greater control over their strategies.	Robillos, R.J. <sup>[19]</sup>
2	A quasi-experimental design using quantitative methods	The research included 66 students learning English as a Foreign Language (EFL) at a university in Iran.	The instruction, which utilised podcasts, notably improved students' listening comprehension. The use of real audio content, such as podcasts, resulted in significantly greater engagement and improved outcomes in listening comprehension.	Andolina, M.W. <sup>[20]</sup>
3	Mixed-methods – The quantitative and qualitative	The research included 47 native Spanish speakers (35 females, 12 males) who were proficient EFL learners. They were divided into two groups, designated as G1 and G2.	A podcast-based approach that incorporates explicit instruction, perception training, production practice, and peer evaluation enhances the pronunciation of specific segmental features.  Significant improvements were observed in imitation and controlled tasks, underscoring the need for extended training to achieve lasting changes in spontaneous speech. Podcasts provided flexible pronunciation practice based on authentic speech, fostering learner autonomy and awareness of articulation.	Fouz- Gonzalez, J. <sup>[21]</sup>
4	Conceptual Theoretical Review	No participants	It is observed that Extensive Listening (EL) as a practical approach to enhance listening fluency among EFL learners by offering enjoyable and understandable input. It highlights a learner-centred, meaning-driven listening process that operates without the need for teacher involvement, based on concepts from Extensive Reading. While EL is still in the early stages of implementation in EFL settings, such as Indonesia, the research emphasises its potential to improve overall language proficiency when practised consistently	Ivone, F.M. <sup>[22]</sup>
5	Quantitative, quasi-experimental research	Forty-eight English learners from Iran are at an intermediate level.	The study found that podcast-based instruction improved vocabulary acquisition and listening comprehension compared to traditional methods. The peer-peer group had greater vocabulary gains, and learners appreciated the engaging collaborative approach. While podcasts enhanced vocabulary and satisfaction, additional training may be needed for better listening comprehension.	Saeedakhtar, A. <sup>[23]</sup>
6	A quantitative research	similar to high-LK neers suggesting that strategy use is not solely		Fung, D. <sup>[24]</sup>

Table 2. Cont.

No	Types of Research	Participants	Key Findings	Source
7	Meta-analysis	This meta-analysis included more than 100 individual studies, generating 276 effect sizes from a sample of nearly 21,000 learners.	The study found that publication type and year influenced the strength of correlations between vocabulary knowledge (VK) and L2 comprehension. Peer-reviewed journals reported stronger correlations than unpublished studies, likely due to rigorous standards and publication bias. More recent studies have shown higher correlations, possibly due to the improved measurement tools for VK. The study recommended tailoring vocabulary instruction to specific comprehension modalities, such as meaning recall for reading and form recall for listening. It also suggested aligning VK assessment with comprehension tasks and using vocabulary depth tests.	Zhang, S. <sup>[25]</sup>
8	Qualitative research	A total of 255 students enrolled in English classes are attending a university in Japan.	The research developed and validated a new questionnaire to assess L2 listening strategies, identifying a three-factor model: cognitive, metacognitive, and practice (self-regulation) strategies. The findings underscore the importance of self-regulation in language strategy research and multilingual communication contexts.	Wakamoto, N. <sup>[26]</sup>
9	Quasi-experimental	Ninety-seven ESP learners, who are majoring in nursing, participated in the study.	The study proved that integrating TBLT with digital tools measurably improved learners' listening comprehension while also enhancing their speaking skills in role-play activities. Based on these findings, it can be suggested that while technology-enhanced TBLT provides authentic and engaging input that is beneficial for listening, its impact on speaking may depend on the type of task. Notably, combining role-play with Task-Based Language Teaching is effective in fostering communicative competence in English for Specific Purposes (ESP) learners.	Mulyadi, D. <sup>[27]</sup>
10	Quantitative and Qualitative	45 EFL learners	The qualitative phase of the study found that the positive psychology intervention (PPI) improved learners' emotional well-being, motivation, and engagement in listening tasks. Key components, including hope-enhanced goal-setting, gratitude-promoted enjoyment, emotion regulation, reduced listening anxiety, and empathy, fostered cooperation. Observations showed increased participation, creativity, and peer support, indicating that integrating positive emotions can enhance both academic performance and emotional development in EFL contexts.	Abdolreza- pour, P. <sup>[28]</sup>
11	A quasi-experimental method	A total of 56 high school students aged 14-15	The study found that artificial intelligence-supported speech recognition (AISR) significantly enhances students' pronunciation and word retention compared to traditional phonetic methods. Quantitative results showed greater vocabulary gains in the AISR group, while qualitative feedback revealed increased motivation and enjoyment in the learning process. Students preferred hearing and pronouncing words directly over memorizing phonetic symbols. The research suggests incorporating AISR tools into language curricula to enhance engagement and pronunciation skills, particularly in digital or blended learning environments.	Kazu, I.Y. <sup>[29]</sup>
12	Mixed-methods approach, combining a quasi-experimental design with phenomenological analysis.	A total of 60 students from the 10 <sup>th</sup> grade	The research indicated that Duolingo considerably enhanced students' all four language abilities compared to conventional teaching methods. Learners in the experimental group demonstrated greater fluency and motivation, attributed to Duolingo's gamified features, adaptability, and self-directed learning format. The app also facilitated independent learning and boosted engagement levels. These findings underscore Duolingo's efficacy as a digital language learning tool and its potential for incorporation into school curricula to improve both learning outcomes and the student experience.	Kazu, I.Y. <sup>[30]</sup>

# 5. Limitations

Future studies should investigate the integration of adaptive technologies, such as AI-driven podcast systems, that can respond to the progress and needs of individual learners. Moreover, examining the role of podcasts in multi-

lingual environments and diverse educational frameworks may further elucidate their capacity to enhance listening abilities across linguistic barriers. Investigating enhancements in accessibility for podcast-based learning, particularly for students in low-resource environments, could ensure the equitable availability and effectiveness of these resources across diverse demographics. Moreover, the study focuses on publications retrieved from the Scopus database, excluding all existing research on podcast-based listening globally.

#### 6. Conclusions

Overall, the conducted bibliometric review analysed 74 Scopus-indexed publications from 2019 to 2025 in terms of podcasting to enhance second language (L2) listening comprehension. From the analysis, it is clear that listening comprehension can be improved through metacognitive strategy training, technology-integrated instruction such as podcasts, Task-Based Language Teaching, and positive psychology. The results from the analysis indicate that podcasts and strategic approaches can not only enhance listening comprehension but also boost vocabulary knowledge and student engagement, increasing their motivation. The main key factors affecting outcomes include self-regulation, emotional health, and the authenticity of tasks. It has been proven that podcasts can enhance listening comprehension by providing learners with authentic language materials, a wide range of various accents, and genuine conversations, which are considered crucial for effective communication, particularly in contexts where English is learned as a foreign language (EFL). Additionally, podcasts are well-suited for facilitating self-directed and flexible learning, particularly in environments with limited resources, and can be accessed with the help of mobile devices. Furthermore, attractiveness, simplicity in use, and portability are the significant advantages of podcasts, which can promote inclusivity, cultural understanding, and intercultural competence. The advancements in educational technology suggest that podcasts as an educational tool will increasingly develop innovative language teaching methods. It is highlighted that future studies should explore the integration of podcasts with adaptive learning technologies, such as artificial intelligence (AI) tools. In summary, it can be concluded that podcasting is an effective and practical tool which can serve as an amplifier for boosting motivation in second language (L2) education and is believed to play a significant role in language learning practices.

#### **Author Contribution**

Conceptualisation, writing the original draft, visualisation: N.M.; Methodology, Supervision: G.S.; Formal analy-

sis: G.X.; Data collection: S.Y.; Financial support: A.A., D.J. All authors have read and agreed to the published version of the manuscript.

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# **Data Availability Statement**

The data supporting the findings of this study are available from the corresponding author upon request.

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#### **Conflicts of Interest**

The authors declare that they have no conflict of interest.

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