

**Recent Global Trends in English Language Teacher Professional Development: Bibliometric Analysis of Scopus-Indexed Journal Articles from 2020 to 2025**

**Taufik Akbar Azwar**

[taufik.azwar777@gmail.com](mailto:taufik.azwar777@gmail.com)

**Kasmaini**

[kasmaini@unib.ac.id](mailto:kasmaini@unib.ac.id)

Postgraduate Program of English Education, Universitas Bengkulu, Indonesia

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**Article History:**

Received: 10 December 2025

Accepted: 29 May 2026

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**Corresponding Author:**

[taufik.azwar777@gmail.com](mailto:taufik.azwar777@gmail.com)

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**Keywords:**

Bibliometric Analysis,  
English Language Teaching,  
English teachers, Teacher  
Professional Development,  
Scopus Database

Despite research growth on English language teacher professional development (ELTPD), systematic mapping of recent ELTPD publications remains scarce. This study seeks to map the contemporary research landscape, collaboration, and leading contributors in the ELTPD field. A bibliometric analysis was employed to scrutinize 715 Scopus-indexed articles from 2020 to 2025. Findings revealed that the field has been growing and expanding. Yet, research collaboration remains low and limited to small groups of research communities. The Islamic Azad University became the most productive institution, while Ha Xuan Van's cluster was one of the most influential research groups. L. X. Gao and Zhang's (2020) study received the most global citations. The keyword analyses suggest that foundational elements of teacher professional development, including assessment, reflective teaching, action research, and lesson study, remain central. Emerging trends were identified, such as Gen-AI, translanguaging, intercultural communication,

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and teachers' psychological dimensions. Thus, ELTPD programs should not only strengthen core teachers' competencies but also integrate those emerging topics into their curricula to equip English teachers with current innovative teaching knowledge and skills.

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## INTRODUCTION

Teacher professional development occupies a primary position in enhancing teachers' teaching quality, learners' learning outcomes, and schools' success (Postholm, 2018). In the context of English language teaching (ELT), teacher professional development is instrumental in improving learners' English proficiency and supporting teachers' professional growth (Taşdemir & Karaman, 2022). Moreover, ELT is considered a rapidly changing field, prompted by the growth in online journals and technology integration in the field (Gozali et al., 2023; Seraj et al., 2024). As a result, research topics in the field are rapidly expanding (Ngoc & Barrot, 2023). One of the prominent research areas in the ELT field is English Language Teacher Professional Development (ELTPD) (see, for example, Crandall & Christison, 2016; Seraj et al., 2024). According to Li (2022), research on ELTPD programs has been extensively done and various educational systems across the world have invested significant time and budget on ELTPD. This aims to allow English teachers to catch up with the rapid changes in instructional demands.

As a result, scholarly work on ELTPD has broadened substantially, particularly over the last decade. This growing interest on ELTPD research is likely to be motivated by advancement in digital technology, global pandemic, online learning, and artificial intelligence. For example, after the rise of generative artificial intelligence (Gen-AI) in 2022, extensive research has been conducted to provide English teachers with guidance on the integration of this newly emerged technology (see, for example, Azwar & Sujarwati, 2025; Chan & Tang, 2024; Kohnke & Zou, 2025; Safitri & Sobah, 2025). Another instance is during the global pandemic, researchers and scholars published numerous research to address challenges faced by English teachers to conduct distant learning (see, for example, Abdalgane, 2023;

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J. Lee et al., 2023; MacIntyre et al., 2020; Muttaqin et al., 2022). This, at the same time, proves that ELTPD is a highly sensitive and responsive research area, meaning that the focus of the research can quickly change in response to the current state of learning demands and needs.

Despite the significant growth of research in ELTPD, existing reviews tend to be qualitative and thematic in nature (Crandall & Christison, 2016; Taşdemir & Karaman, 2022). Other studies explored teacher professional development in general contexts (e.g., Postholm, 2012, 2018). Very few studies have synthesized this dynamic research area through quantitative scientometrics or bibliometrics. A review of the existing literature revealed a study by Q. Liu et al. (2025) that has examined the research landscape on ELTPD using bibliometrics. However, Q. Liu et al.'s (2025) study tended to focus more on the evolution of ELTPD research, covering a wide range of time frames, from 1946 to 2022. Consequently, the most recent development of the ELTPD research publications, covering the last five years (2020 to 2025), may not be fully scrutinized. Particularly, with the release of OpenAI in 2022 (Zheng et al., 2024) and after the global pandemic, the recent research landscape on ELT over the past two to three years has undergone significant shifts as a result of the emergence of GenAI (Hidayat et al., 2025; Kartal & Yeşilyurt, 2024) and the post pandemic influence (Cespedes, 2025; Truc, 2024). These identified methodological and knowledge gaps underscore the need for an extensive bibliometric analysis that maps the most recent research landscape of ELTPD publications.

To close this gap, we conducted a bibliometric analysis of scholarly publications on ELTPD, indexed in the Scopus database from 2020 to 2025. Employing tools such as VOSviewer and Biblioshiny, we explored patterns in research production, collaboration networks among authors, institutions, and countries, highly influential publications, and the conceptual structure revealed through keyword co-occurrence, overlay visualization, and trend topics. Through mapping these elements, this present study intends to provide an overview of the field's contemporary status evolution, identify influential contributors and

publications, and highlight emerging research topics. By addressing this gap, this study's findings advance our understanding on the current research landscape, contemporary instructional demands, and teaching innovations in ELTPD. The findings, thus, have implications for ELTPD researchers, school supervisors, educators, and policymakers.

We formulated three research questions to help guide us in conducting this present research: How has the research collaboration in teacher professional development in ELT evolved over the past five years, based on collaboration among corresponding authors' countries, institutions, and authors?; Which publications are the most influential in teacher professional development in ELT from 2020 to 2025?; What are the dominant research themes and recent trends in teacher professional development in ELT from 2020 to 2025, based on network visualization, overlay visualization, and topic trend analysis?

## **LITERATURE REVIEW**

### **English Teacher Professional Development**

It is essential to recognize that teacher professional development is not a one-time event. It is a continuous process in which teachers are constantly involved in activities aimed at improving knowledge, skills, and attitudes (Sadeghi & Richards, 2021; Taşdemir & Karaman, 2022). A professional teacher is a teacher who is willing to develop their professional competencies to provide students with innovative instructional material and strategies (Husna et al., 2022). Diaz-Maggioli (2003) defined teacher professional development "as an ongoing learning process in which teachers engage voluntarily to adjust their teaching to the learning needs of their students" (p. 1). Postholm (2018) explained that teacher professional development can occur in both formal (e.g., professional development programs) and informal (such as peer teaching and mentoring) settings. She added that school leaders may need to assist teachers in their professional development journeys by identifying teachers' developmental needs, collecting and providing resources, and fostering their new teaching implementation. It is evident that teacher professional

development not only requires teachers' willingness to learn but also requires strong collaboration and support from institutions and colleagues.

Within the context of ELT, teacher professional development is an important element, requiring meaningful and sustained professional development experiences. Sadeghi and Richards (2021) pointed out three objectives of teacher professional development in ELT contexts. First, it helps English teachers enhance their instructional practices, which subsequently leads to the improvement of their learners' learning outcomes. Second, it becomes a venue in which English teachers constantly tailor their knowledge and skills to the current technologies, resources, and demands, as ELT is a dynamic field. Third, it may enhance English teachers' psychological dimensions as it may result in improved motivation and empowerment among them.

Taşdemir and Karaman (2022) argued that professional development among English language teachers poses unique challenges compared to other teachers. Unlike other teachers in different fields, English language teachers are required to possess not only knowledge about the language itself but also be capable of utilizing it effectively as their instructional language in classrooms. It is therefore necessary for them to continuously maintain and enhance their English language skills and knowledge; otherwise, their English proficiency may deteriorate.

### **Existing Bibliometric Studies on Teacher Professional Development**

A review of the existing literature suggested a paucity of bibliometric analyses on teacher professional development. This might be attributable to the fact that the bibliometric method, a research design used to identify research trends, collaborations, and influential contributors, is still considered underutilized (Ngoc & Barrot, 2023; Passas, 2024). Numerous scholars have not fully embraced this research design to explore various research issues, including in ELT. It is therefore reasonable that research on ELTPD has not been fully approached through the lens of the bibliometric method.

Despite that, the existing literature has shown two bibliometric studies on teacher professional development (i.e., Y. Gao et al., 2022; Syzdykbayeva et al., 2025). These earlier studies have focused on exploring research evolution on teacher professional development in general Education contexts. Y. Gao et al. (2022) have examined 248 publications on online teacher professional development in higher education contexts. They reported that the COVID-19 pandemic significantly affected publication trends in online teacher professional development. They argued that the increased number of publications might be because researchers needed to support teachers in conducting online teaching during the sudden shift from traditional offline learning modes to mandatory online learning settings. They identified several research themes that researchers often explored, including pedagogy training, online community building, and supporting online teachers. Another study by Syzdykbayeva et al. (2025) investigated teacher professional development publications from 1975 to 2025 in general education settings. They revealed that the research themes revolved around educational policy, modern educational technologies, professional standards, assessment and learning practice, and socio-educational communities.

A further review of the existing literature revealed three bibliometric studies on topics related to language teacher professional development (see Q. Liu et al., 2025; Mardian & Anani Sarab, 2025; Wang et al., 2024). More specifically, Mardian and Anani Sarab (2025) probed into scholarly publications on language teacher reflection. They argued that teacher reflection is a core skill for teachers' continuous professional development. They found that research on language teacher reflection has increasingly expanded, focusing on topics pertaining to the integration of digital literacy and multimodal reflection. In another recent study, Wang et al. (2024) uncovered the research landscape on language teacher self-efficacy from the last two decades. The findings suggested that teacher self-efficacy is often investigated along with other variables such as professional development, teacher beliefs, and job satisfaction and burnout. They argued that teacher self-efficacy is teachers' personal experience, which may affect teacher professional growth and practices.

Finally, a study by Q. Liu et al. (2025) investigated publications on ELTPD from 1946 to 2022. They proposed four different phases of research on ELTPD. They revealed that teacher belief, pre-service teachers, and reflective teaching emerged in different periods. They reported that sociocultural theory, teacher agency, online teaching, and higher education are emerging topics in ELTPD. While Q. Liu et al.'s (2025) study offer important contributions in mapping research on ELTPD, they do not cover and map the most recent scholarly publications on ELTPD. Particularly, research on ELTPD after the emergence of Gen-AI and post-pandemic influences has not been fully reviewed. Given the methodological gap as well as the knowledge gap in the existing English teacher education literature in comprehensively synthesizing recent publications on ELTPD, this present research thus aims to map the current research situation and emerging themes on ELTPD.

## **METHOD**

### **Research Design**

This research applied a bibliometric research design to map the intellectual structure, collaboration patterns, and recent thematic trajectory of publications on ELTPD. Bibliometric analysis is a research design that allows researchers to synthesize large bodies of scientific publications and identify influential publications, emerging themes, and research trends in a field of study (Ellegaard & Wallin, 2015; Passas, 2024). Additionally, Zupic and Čater (2015) explained that bibliometric research aims to illustrate the development of a particular scientific field. In this study, we aimed to synthesize and map a large number of recent publications on ELTPD to illustrate its current research development.

### **Data Collection: Database and Selection Strategy**

All publication data were retrieved from the Scopus database on 30 November 2025. The Scopus database was chosen due to its comprehensiveness and reputation in indexing high-quality research articles (D. Lee, 2023; Maral, 2024). To retrieve relevant publications from the database, we created several inclusion criteria (see Table 1). This was also intended to ensure that the collected studies are in line with our research objectives. Based on the inclusion criteria, the search

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formula or query syntax was then developed through a combination of Boolean logic operators (AND, OR) and keywords (Aiju et al., 2025). Below is the table of inclusion criteria.

**Table 1.** The Inclusion Criteria

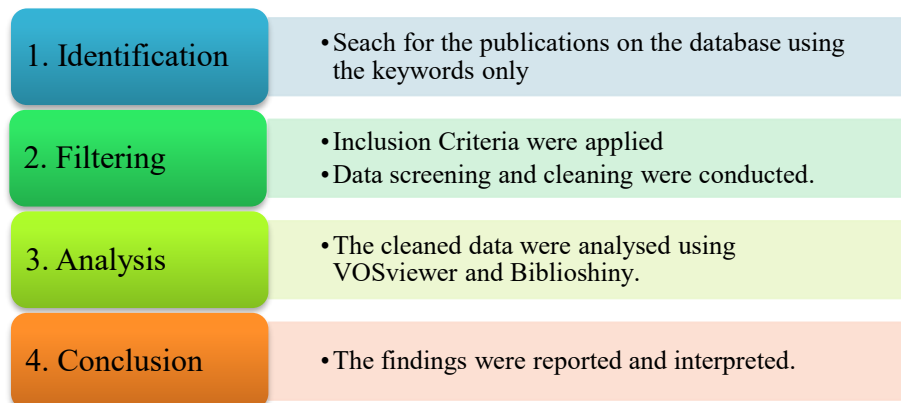
<b>Criteria</b>	<b>Inclusion</b>
Research Content	The included studies must be related to ELTPD.
Language	The included studies were written in English.
Time Frame	The included studies were published between 2020 and 2025.
Database	The included studies were collected from the Scopus database.
Document Type	The included studies must be journal articles.
Keyword and Search Formula	TITLE-ABS-KEY ( ( "teacher professional development" OR "teacher training" OR "teacher learning" OR "in-service teacher training" OR "pre-service teacher training" ) AND ( "English language teaching" OR "EFL teachers" OR "ESL teachers" OR "English language teachers" ) ) AND PUBYEAR > 2019 AND PUBYEAR < 2026 AND ( LIMIT-TO ( SRCTYPE , "j" ) ) AND ( LIMIT-TO ( DOCTYPE , "ar" ) ) AND ( LIMIT-TO ( LANGUAGE , "English" ) )

To map the most recent research development and identify emerging research themes in the field of ELTPD, the search was limited to publications from 2020 to 2025 (with 2025 records considered partial due to in-progress indexing). Only publications written in English and classified as journal articles were collected.

### Data Analysis

This research adhered to a systematic bibliometric research procedure proposed by Samala et al. (2023). The procedure consisted of four stages, including identification, filtering, analysis, and conclusion (see Figure 1). As presented in Figure 1, this research began from the identification stage. We identified 1,385 publications using keywords only in the stage of identification. Then, in the filtering stage, we applied the inclusion criteria, namely the document type, language, and time frame. After applying the criteria, 715 records were found. The bibliographic metadata of the 715 records were then downloaded and extracted into a CSV file for further analysis. Manual checking on the collected metadata was also undertaken to ensure that all the included studies were relevant to ELTPD and increase the validity

of the dataset. Several studies included in the metadata were manually screened and cross-checked. The 715 records in the dataset are considered adequate to represent the field of ELTPD within the last five years. The representativeness of the dataset was also ensured by the use of transparent search formula and systematic screening procedure following the inclusion criteria.



**Figure 1.** Research Procedure

Thereafter, the data cleaning process was meticulously done by creating a thesaurus file and a deletion term file to standardize keywords and remove irrelevant keywords and duplicate keywords. Similar terms like “teacher education”, “professional development”, and “teacher training” were standardized to “teacher professional development”. Less relevant terms like “articles”, “human”, “adults”, and “female” were deleted because they were largely generic indexing terms. Contextual terms such as “Vietnam”, “China”, and “Iran” were also removed because they do not represent substantive conceptual research themes, but rather geographical references of research settings. This keyword refinement procedure was conducted to improve the readability and interpretability of the co-occurrence keyword map. A cleaning procedure prior to data analysis is conducted to ensure accuracy and consistency of the findings (Azwar et al., 2026; Kartal & Yeşilyurt, 2024). In addition to the refinement procedure, we set the minimum number of occurrences of a keyword to be presented in the co-occurrence keywords map to six.

In the third stage, the metadata retrieved and cleaned were analyzed. The analysis consisted of three components aligned with the research questions. Two computer programs were used to assist in analyzing data, including VOSviewer and Biblioshiny in RStudio. To answer research question one, collaboration mapping analysis was administered using Biblioshiny in R Studio. Two types of collaboration networks were generated, including the author collaboration network and the institutional collaboration network. A chart of the corresponding authors' countries was also generated to find out the leading countries and their collaborations.

Next, to unveil the most globally cited publications in ELTPD, citation analysis was undertaken using Biblioshiny. The ten most influential scholarly articles in the field were collected and arranged in a table. Finally, thematic and trend mapping were performed to analyze dominant research themes and emerging topics. A co-occurrence keyword network and overlay visualization map were generated using VOSviewer, while annual trend topic analysis was generated using Biblioshiny. Keywords in clusters of co-occurrence keyword network were grouped in a table and interpreted qualitatively. In the last stage of the research procedure, the findings were presented and interpreted in the results and discussion section.

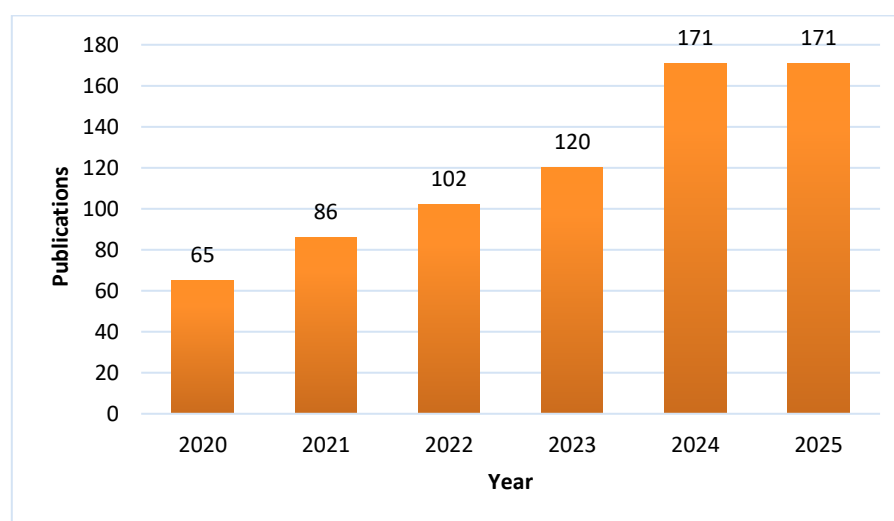
### **Validity and Reliability of the Bibliometric Analysis**

Regarding the validity and reliability of this bibliometric analysis, we implemented several measures to ensure the validity and reliability of the findings. First, we used the Scopus database to improve the reliability and completeness of our retrieved bibliographic metadata. Second, exact search formula using Boolean logic operators employed in the database and clearly defined inclusion criteria were transparently reported in this methodology section. This ensures the replicability of the data collection process. Next, the retrieval date of the bibliographic dataset was explicitly specified to ensure the reliability and reproducibility of the dataset. Finally, standardized analytical procedures using VOSviewer and Biblioshiny were explicitly specified and implemented to ensure the validity and reliability of the findings.

## FINDINGS AND DISCUSSION

### FINDINGS

In the first part of this section, we provide a general result of the annual scientific production in the scope of ELTPD. The primary objective of the annual publication is to disseminate an overview of research growth and development in this field. Figure 2 below depicts the cumulative publications from 2020 to 2025.

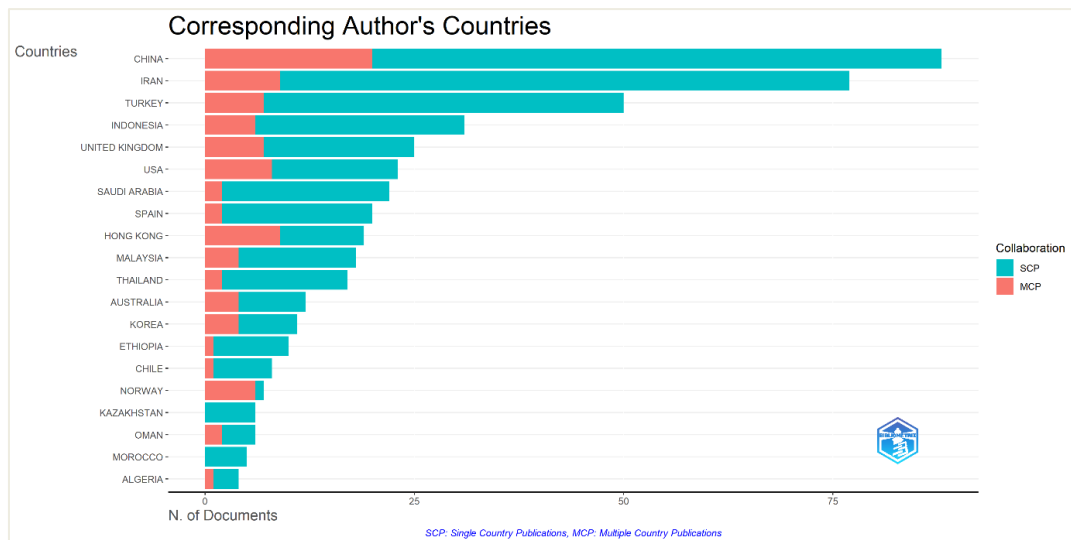


**Figure 2.** The Cumulative Publication from 2020 to 2025

The annual research production of ELTPD demonstrates a consistent upward trajectory. Scientific publications have increased steadily over the years. The highest increase occurred in 2024. The number of scholarly publications in 2025 is highly likely to exceed the number of publications in 2024. This sharp increase suggests the heightened interest among scholars in ELTPD during the post-pandemic period and a growing attention to professional learning practices within ELT.

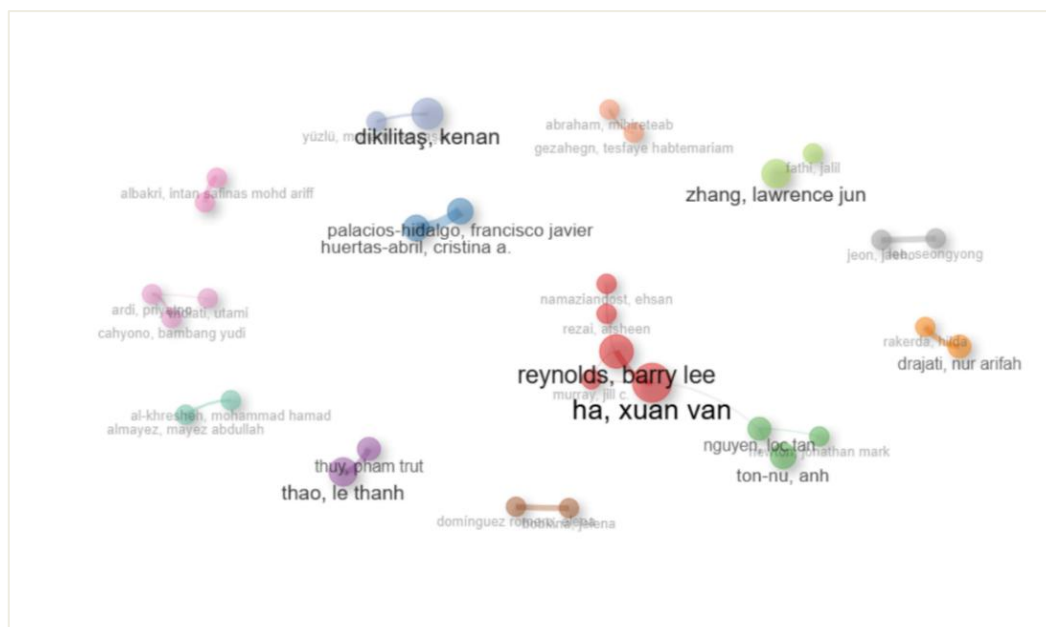
### Research Collaboration

The analysis of research collaboration consisted of three assessments, namely the corresponding author's countries, the author collaboration network, and the institution collaboration network. First, the analysis of the corresponding authors' countries showed the leading countries and their collaboration patterns in this field. Figure 3 illustrates the corresponding authors' countries.



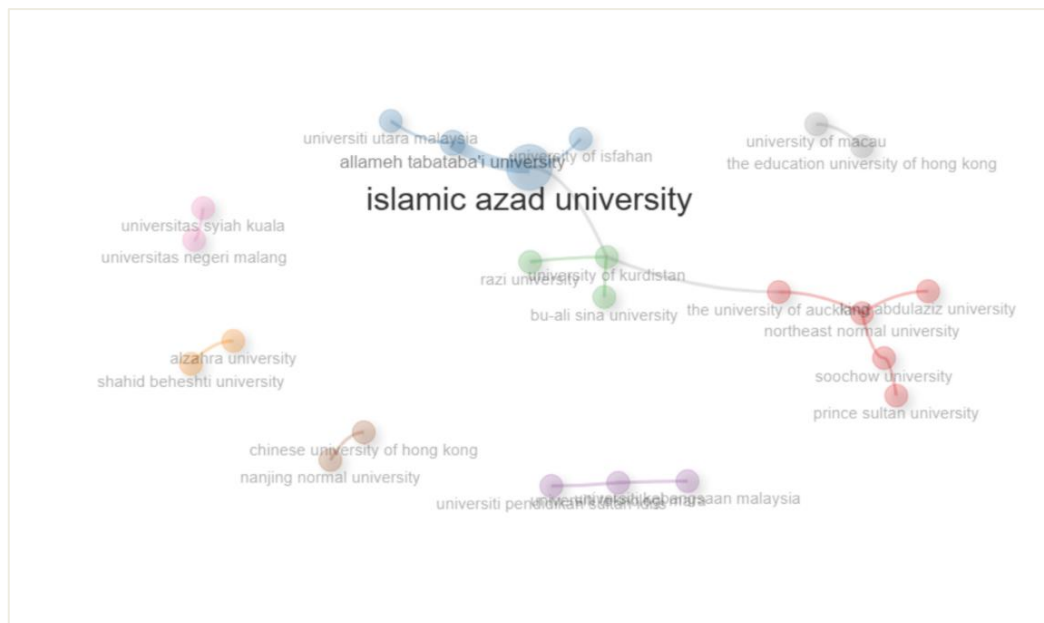
**Figure 3.** The Corresponding Authors' Countries

The highest number of corresponding authors came from China, Iran, and Turkey, indicating that these nations function as primary contributors in the field of ELTPD. Countries like Indonesia, the UK, and the USA also dominated the scientific production in ELTPD. Countries with lower frequencies suggested emerging contributors. In terms of the collaboration pattern, most publications were still driven by Single Country Publication (SCP). Meanwhile, the Multiple Country Publication (MCP) remained limited. Nations like China, Iran, and the USA have higher MCP publications than other nations in the figure. Taken together, these results suggested that international collaboration between countries is still needed to develop this area. Next, to evaluate the collaboration between authors, an author collaboration network analysis was carried out. The following figure is the map.



**Figure 4.** The Author Collaboration Network

The author collaboration network indicated low collaboration. Most authors work only in pairs, forming small and isolated clusters. It suggested that most researchers collaborate in small teams of two, such as the Drajadi cluster, the Dikilitas cluster, the Zhang cluster, and the Albakri cluster. Only one cluster, the Cahyono cluster, displayed a slightly larger group of three interconnected researchers. However, the strongest collaboration group was found within the Ha Xuan Van cluster, connecting eight nodes across two cluster colors. This can be considered a bridging node, linking different research communities. Despite that, collaboration among researchers remains fragmented, with few co-authorship hubs. These findings highlight the need for stronger collaborative engagement among scholars to advance research development on ELT teacher professional education. Finally, we performed an analysis of the institution collaboration network to evaluate the research collaboration in ELTPD. Below is the figure of the institution's collaboration network.



**Figure 5.** The Institution Collaboration Network

As seen in Figure 5, numerous institutional clusters consist of only two nodes, including the Universitas Syiah Kuala and Universitas Negeri Malang cluster, the University of Macau and Education University of Hongkong cluster, and the Alzahra University and Shahid Beheshti University Cluster. This indicated that collaboration typically occurred only between two research institutions. One cluster consisting of three different institutions, namely Universiti Kebangsaan Malaysia, Universiti Teknologi Mara, and Universiti Pendidikan Sultan Idris, was observed, indicating a slightly larger collaboration community. Yet, a notable exception appeared in the largest connected clusters, which consisted of 12 institutions represented in nodes, spanning three different cluster colors. This formation suggests that these institutions collaborate across multiple research communities. The largest node in the formation was from the Islamic Azad University, indicating its highest research productivity. Next, at the center of this formation was the University of Kurdistan, connecting different institution clusters. This shows that the University of Kurdistan acted as a significant consolidator within the biggest collaboration formation. Overall, despite the weak collaboration in the field, as indicated by several isolated clusters, this large integrative cluster suggests that there

exists a core group of institutions contributing and leading research on teacher professional training within the sub-field of ELT.

Taken together, the findings from the three indicators of research collaboration above reveal that the field of ELTPD is expanding and still developing in terms of its collaboration. The authors' corresponding countries show that the collaboration is still largely dominated by independent and nationally oriented collaborations. The author collaboration network consisted largely of isolated pairs, denoting limited co-authorship. At the institutional level, collaboration demonstrated similar patterns, with only one major cluster connecting a central bridging group. These combined findings highlight a need for more research collaboration among scholars across different research communities to accelerate teacher professional research development in ELT.

### ***Most Influential Publications***

To reveal key research publications in the ELTPD field, we performed an analysis of the most globally cited documents. Table 2 below lists the ten most globally cited publications that have shaped the contemporary research field and contribute to the methodological and theoretical foundations of research on English teacher development. The table also includes the authors of each influential article, journals, and total citations. It offers a comprehensive summary of the most impactful publications in the field, organized according to their total citations.

**Table 2.** Most Globally Cited Publications

<b>Authors</b>	<b>Journals</b>	<b>Titles</b>	<b>Citation</b>
L. X. Gao and Zhang (2020)	Frontiers in Psychology	Teacher Learning in Difficult Times: Examining Foreign Language Teachers' Cognitions about Online Learning to Tide over Covid-19	256
Johnson and Golombek (2020)	Language Teaching Research	Informing and Transforming Language Teacher Education Pedagogy	208
Bai et al. (2021)	Computer Assisted Language Learning	Understanding Hong Kong Primary School English Teachers' Continuance Intention to Teach with ICT	123

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Benesch (2020)	Critical Inquiry in Language Studies	Emotions and Activism: English Language Teachers' Emotion Labor as Responses to Institutional Power	101
G. L. Liu and Wang (2024)	System	Modelling EFL Teachers' Intention to Integrate Informal Digital Learning of English (IDLE) into the Classroom Using the Theory of Planned Behaviour	95
Mumford and Dikilitaş (2020)	Computers & Education	Pre-service Language Teachers Reflection Development through Online Interaction in A Hybrid Learning Course	89
Park and Son (2022)	Asia Pacific Journal of Education	Pre-service EFL Teachers' Readiness in Computer-assisted Language Learning and Teaching	88
Zhi and Wang (2023)	Thinking Skills and Creativity	English as A Foreign Language Teachers' Professional Success, Loving Pedagogy and Creativity: A Structural Equation Modelling Approach	80
Zhang et al. (2023)	Perceptual and Motor Skills	Predicting Teaching Enjoyment from Teachers' Perceived School Climate, Self-Efficacy, and Psychological Wellbeing at Work: EFL Teachers	78
Vadivel et al. (2021)	Frontiers in Education	Progress in English Language Teaching Through Continuous Professional Development—Teachers' Self-Awareness, Perception, and Feedback	78

As listed in Table 2, the most cited article in the area of ELTPD is the study by L. X. Gao and Zhang (2020), published in *Frontiers in Psychology*, and has accumulated 256 citations. L. X. Gao and Zhang (2020) in their study addressed teachers' cognitions and their strategies in learning online teaching during the COVID-19 pandemic. They explored how English teachers responded to a sudden new situation in which they had to conduct online teaching. Their findings suggested that the English teachers acquired digital literacy and comprehensible cognitions about the features, advantages, and challenges of online teaching. The second most globally cited article is research by Johnson and Golombek (2020), which was published in the language teaching research. The article has received 208 citations. It emphasized the critical necessity to reform and transform the language teacher education pedagogy in facing the evolving global landscape of ELT. Johnson and

Golombek (2020) proposed eight interrelated propositions that were rooted in Vygotskian sociocultural theoretical perspectives to define the language teacher education pedagogy.

Next is the study by Bai et al. (2021) which was published in the *Computer Assisted Language Learning Journal* and has accumulated 123 citations. The study examined Hong Kong Primary English teachers' intention to continue harnessing Information Communication Technology (ICT) in their instructional practices. Findings indicated that English teachers' motivational beliefs (i.e., ICT self-efficacy, interest, and anxiety), learning behaviors (adaptive help-seeking), and perceptions of ICT usefulness and ease of use are keys to teachers' sustained intention to utilize ICT in their teaching. Following their findings, Bai et al. (2021) recommended professional development programs that can provide English teachers with technical and pedagogical support and foster confidence, adaptive help-seeking learning behaviors to accelerate the integration of ICT in English language education. Similarly, other top-cited studies in the list also explored technology-related topics, including G. L. Liu and Wang (2024), Mumford and Dikilitaş (2020), and Park and Son (2022). More specifically, these studies examined teachers' intention to incorporate informal digital learning of English, teachers' reflection development through a hybrid learning course, and teachers' readiness in utilizing computer-assisted language learning and teaching, respectively.

Some other studies in the list explored psychological dimensions of teachers in contemporary ELTPD research. The psychological topics examined include teachers' emotional labor by Benesch (2020), teacher professional success, loving pedagogy, and creativity by Zhi and Wang (2023), teachers' perceived school climate, self-efficacy, and psychological well-being at work by Zhang et al. (2023), and teachers' self-awareness, perception, and feedback of continuous professional development by Vadivel et al. (2021). Overall, it can be concluded that these top-cited studies mostly addressed issues related to contemporary global challenges, digital and socio-emotional aspects of teacher development, offering comprehensive conceptual foundations for research and practice on ELTPD.



Cluster 2 (Green)	9 Terms	English Language Assessment Literacy, and Digital Literacy in ELTPD	Assessment, assessment literacy, digital literacy, e-learning, English language assessment literacy, perception, teacher autonomy, teachers' professional development
Cluster 3 (Dark Blue)	9 Terms	Multilingualism and Psychological Dimensions in ELTPD	ESL, middle age, motivation, multilingualism, psychology, questionnaire, school, school teachers, thematic analysis
Cluster 4 (Yellow)	8 Terms	Artificial Intelligence and Emerging Technologies in ELTPD	Action research, artificial intelligence, challenges, ChatGPT, ELT, novice teachers, reflective practice, teacher professional development
Cluster 5 (Purple)	7 Terms	Global and Societal Influences on ELTPD	COVID-19, curriculum, intercultural communication, learning, student, sustainability, teaching
Cluster 6 (Light Blue)	5 Terms	Inclusive Education, Lesson Study, and Activity Theory in ELTPD	Activity theory, case study, higher education, inclusive education, lesson study
Cluster 7 (Orange)	4 Terms	Teacher Psychological Well-being and Professional Construct	In-service ELT teachers, positive psychology, professional identity, teachers' perception

The co-occurrence analysis of all keywords revealed seven interconnected clusters (see Figure 6 and Table 3), offering insights into major conceptual areas in recent ELTPD. We found that the most recent research landscape in ELTPD revolves around the incorporation of digital technology and artificial intelligence, psychological dimensions of teacher development, multilingualism, and inclusive education. The most dominant cluster (i.e., the red cluster), comprising 15 terms, included terms such as “reflective teaching”, “teacher belief”, “self-efficacy”, “teacher cognition”, and “teacher identity”, suggesting a core focus on reflective practice and aspects of teacher cognition in teacher development. Several context-specific terms appear in the cluster, such as “pre-service ELT teachers”, “teacher development”, “online teaching”, and “narrative inquiry”. These keywords may provide contextual information to the main theme of this cluster. In other words,

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researchers may explore the reflective practice and teacher cognition of pre-service ELT teachers in utilizing online teaching. Meanwhile, the term “narrative inquiry” might refer to the research methodology used in exploring the main themes, indicating a tendency towards qualitative research.

Next, the second cluster, displayed in green, is dominated by assessment and literacy keywords, such as “assessment literacy”, “digital literacy”, “e-learning”, “English language assessment literacy”, and “assessment”. These keywords reflect the strong emphasis on developing teachers’ capacity in conducting English language assessment literacy, and digital literacy. Assessment literacy is the central skill that teachers need to have in order to design, implement, and interpret assessments effectively. However, in the era of increasing digitalization, the literacy assessment also includes digital literacy in which teachers can foster students’ ability in collecting, evaluating, and disseminating information through digital technologies. The term “digital literacy” may also refer to teachers’ ability to harness digital technologies. The third cluster, coded in dark blue, centers on terms like “motivation”, “psychology”, and “multilingualism”, denoting a growing interest in the psychological dimensions of teacher growth and multilingualism. The context-specific keywords in the cluster include terms like “ESL”, “questionnaire”, “thematic analysis”, and “school teachers”, suggesting the research methodology and context of the main theme (i.e., multilingualism and psychological dimensions).

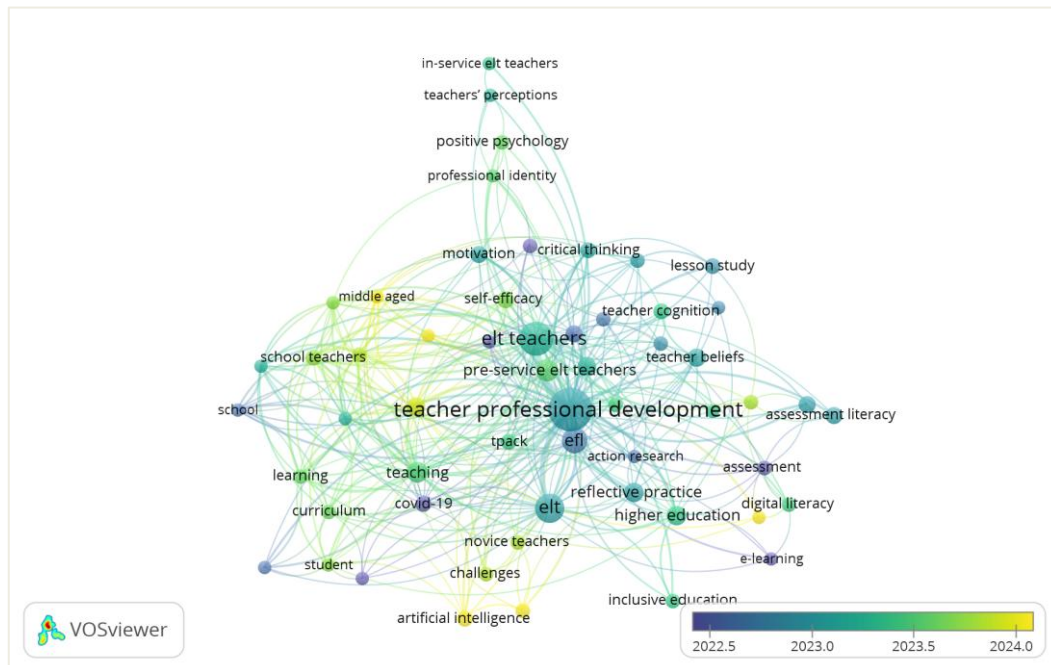
The fourth cluster, represented in yellow, signifies the emerging technologies, like the use of AI in ELTPD. Terms in the cluster include “AI”, “ChatGPT”, “challenges”, “novice teachers”, “action research”, and “reflective practice”. These keywords may explore the integration of AI and ChatGPT in teacher development programs. Action research and reflective practice might link to the research methodology in which these emerging technologies are integrated into ELTPD programs. The fifth cluster, as coded in purple, points to the global and societal influences on ELTPD, as suggested by terms like “COVID-19”, “intercultural communication”, “sustainability”, and “curriculum”. This denotes that worldwide challenges like the COVID-19 pandemic have shaped the research

landscape on ELTPD, while the term intercultural communication suggests current societal influences on ELTPD in which language teachers are expected to foster learners' cross-cultural communication capacity.

Moreover, another cluster in light blue includes keywords such as “activity theory”, “case study”, “inclusive education”, “lesson study”, and “higher education”, which show how ELTPD programs consider broader educational goals like inclusive education. Inclusive education has now become a prevailing issue in education and teacher professional development programs, which aim to provide an equal opportunity for all children to access education. This cluster also includes a conceptual framework of teacher professional development, that is, activity theory. Lesson study is also within the cluster, indicating the existence of teacher collaborative professional development practice. These two keywords indicate the foundational concepts of ELTPD. Finally, the last cluster represented in orange points to the teacher's professional aspects, including “professional identity”, “positive psychology”, “teachers' perception”, and “in-service ELT teachers”. These keywords suggest an increasing interest in teachers' professional well-being and professional constructs, showing how the research landscape in ELTPD shifts to comprehending professional constructs and the emotional well-being of language teachers.

In essence, the network of all keywords demonstrates a diverse yet interrelated conceptual research landscape, revolving around emerging technologies, teachers' psychology, inclusive education, multilingualism and intercultural communication, and core teacher professional development practices (i.e., action research, lesson study, assessment, and reflective teaching). We also identified a tendency to use qualitative research methodology. This is indicated by the presence of qualitative research keywords such as “case study”, “thematic analysis”, “perception”, and “narrative inquiry”. It appears that researchers and scholars showed greater interest in qualitative research methodology in exploring issues pertaining to ELTPD. Furthermore, we analyzed the overlay visualization

map to better understand the dynamic changes of these research themes over the last five years.



**Figure 7.** The Overlay Visualization Map of All Keywords against Year

The map, as shown in Figure 7, illustrates the chronological development of all keywords. Keywords with brighter colors (i.e., green and yellow) signify more recent research topics, whereas keywords with darker colors (i.e., blue and purple) denote older research topics. Early keywords in the map are dominated by foundational and core topics, such as “teacher professional development”, “action research”, “COVID-19”, “critical thinking”, “assessment”, “reflective practice”, and “ELT teachers”. As the colors shift to green and yellow, newer research topics appear, particularly those related to “AI”, “digital literacy”, and “psychological dimensions of teachers”, reflecting an increasing interest in emerging technologies and the teachers’ psychological well-being constructs in ELTPD. This temporal development displays how the ELTPD field has shifted from conventional ELTPD issues towards the application of sophisticated technologies and psychological dimensions of teacher learning.

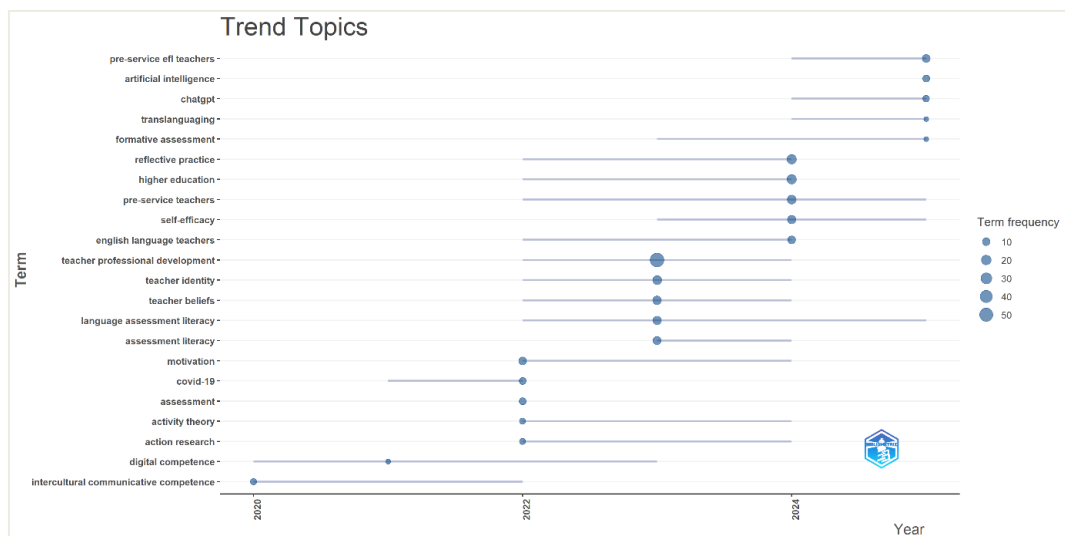
In conjunction with the analysis of the overlay visualization map, we also performed an annual trend topic analysis through Biblioshiny. This analysis was

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intended to further evaluate the dynamic shifts in the ELTPD research landscape and validate the results of the prior keyword analysis in the co-occurrence and overlay networks. Figure 8 displays the annual research trend topics, which appear to closely align with the patterns we observed in the overlay visualization map, reinforcing the temporal development of research themes in ELTPD. Early years from 2020 to 2022 are dominated by topics like “intercultural communicative competence”, “COVID-19”, “action research”, “activity theory”, “assessment”, and “digital competence”, suggesting foundational ELTPD topics and global challenges. The keyword of digital competence that appeared in these years may suggest a sudden change in education, where teachers and students were compelled to immediately adopt an online instructional model. Consequently, scholars were interested in figuring out how teachers adjusted to this sudden displacement, raising questions regarding their digital competence to carry out virtual teaching.



**Figure 8.** The Annual Trend Topics

More recent years, from 2022 to 2025, have demonstrated newer research topics, as represented by keywords such as “assessment literacy”, “pre-service EFL teachers”, “translanguaging”, “ChatGPT”, and “AI”. These keywords signify emerging research topics that have lately caught ELTPD scholars’ attention. The current ELTPD research landscape seems to focus on the possible applications of AI and translanguaging in English classrooms. Additionally, topics related to pre-

service EFL teachers and assessment literacy are becoming more significant in contemporary ELTPD research. Despite that, we also identified core teachers' professional development issues, namely "reflective practice", "action research", and "formative assessment". These are considered fundamental skills of teachers' professional development. Finally, psychological dimensions of teachers' growth are also present in the figure, including "teacher belief", "teacher identity", "motivation", and "self-efficacy", corroborating the earlier co-occurrence analysis findings.

## DISCUSSION

The annual production of ELTPD publications displays a steady upward trajectory over the past five years, with the most substantial increase occurring in 2024. This shows a growing interest in the field. Scholars appear to be increasingly recognizing the significant role of teacher professional development within ELT. The sharp increase in scholarly publications during the final years (i.e., 2024 and 2025) might reflect the contemporary digital transformation. This may be attributed to the proliferation of Gen-AI in various fields, including ELT (Hidayat et al., 2025; Kartal & Yeşilyurt, 2024; Yaseen & Alnakeeb, 2023). Scholars and English teachers have been focusing on exploring the possible integration of Gen-AI in ELT. Consequently, researchers may have largely carried out research to support English teachers in integrating Gen-AI ethically and meaningfully into their instructional practices (Azwar & Sujarwati, 2025; Kohnke & Zou, 2025; Laksanasut, 2024; Sapan & Uzun, 2024; Zahran, 2025). It could be inferred that research on ELTPD is not only growing in volume but is also progressively diversifying in its scope.

The investigation of research collaboration in the field of ELTPD reveals that the research collaboration is still fragmented and concentrated on particular research communities and institutions. The figure of the corresponding authors' countries shows a lack of MCP, suggesting there needs to be more research collaboration among multiple countries. Interestingly, Asian nations, such as China, Iran, and Indonesia, dominated this field. It appears that the geographical dominance in language teacher education research has moved to Asian countries. Earlier

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bibliometric studies in the field of ELT reported similar patterns in which Asian nations tended to dominate the field of English teacher education (e.g., Q. Liu et al., 2025; Mardian & Anani Sarab, 2025; Wang et al., 2024). Additionally, Mardian and Anani Sarab (2025) argued that research on language teacher education tended to shift to Asian nations, which used to be dominated by North American and European countries. Developing countries may now lead the field of teacher education research (Wang et al., 2024).

The fact that Asian nations lead this field might be associated by several factors, namely government policies, and sociocultural pressures. Many Asian countries such as Japan, Vietnam, South Korea, and China treat English proficiency as important skills to learn for economic competitiveness. This leads to nationwide policies in education to emphasize more on English education as well as teacher training programs (Hashimoto, 2018; Zhan, 2008). Another possible contributing factor is a sociocultural pressure. Asian nations, particularly East Asian Nations, place stronger emphasis on education and English proficiency. For example, many parents in South Korea expect their children to be proficient in English language (Linse, 2011). They invest much money on their children's English education, hoping for their children to master English from an early age. This consequently prompts higher demands in ELTD programs in Asian nations.

On the institution and author levels, the research collaboration patterns also remain limited and unevenly distributed. Much of the scholarly work was produced by isolated groups of researchers or by a few influential institutions that dominate the field. The biggest collaboration among researchers was found in the Ha Xuan Van cluster. Ha Xuan Van is a researcher from Macquarie University, Australia, specializing in teacher professional development in ELT. He has published numerous influential research papers on ELTPD across reputable journals, contributing to the theoretical and practical foundations of contemporary ELTPD research. In contrast, Q. Liu et al. (2025) reported Rui Yuan as the most productive researcher. This is probably because Q. Liu et al.'s (2025) study examined a longer time period, covering nearly 8 decades of ELTPD publications. Furthermore, the

most productive institution in ELTPD research is observed in the Islamic Azad University, while the institution with the most collaborations is the University of Kurdistan. A prior bibliometric study on language teachers' self-efficacy by Wang et al. (2024) revealed that these two institutions were leaders in language teacher education research, further validating their positions as frontier institutions in this field.

Regarding the influential publications, most studies delved into topics related to online teaching during the global pandemic, digital and social-emotional aspects of teacher development. The global COVID-19 pandemic seems to have substantially influenced teacher education research (Y. Gao et al., 2022; Q. Liu et al., 2025). Due to the pandemic, numerous studies were published to tackle issues related to online teaching, providing teachers with theoretical and practical foundations to conduct effective online education (see, for example, L. X. Gao & Zhang, 2020; Kanchai, 2021; Sakulprasertsri et al., 2022; Soto et al., 2023). Furthermore, Q. Liu et al. (2025) observed a similar pattern in their co-occurrence keyword analysis, particularly in ELTPD publications between 2020 and 2022. They revealed that the pandemic largely affected the language teacher education research. They further argued that the sudden change in research themes during the pandemic indicated the characteristics of the field, which is highly responsive and sensitive to social and global challenges and changes.

Besides that, the top-cited studies are also dominated by research themes related to teachers' psychological aspects and digital integration. This is attributable to the post-pandemic trends. Post-pandemic publications demonstrate research on the integration of digital technologies and teachers' emotional well-being (e.g., Al-Khresheh et al., 2025; G. L. Liu & Wang, 2024; Zhang et al., 2023; Zhi & Wang, 2023). The growing scholarly attention to English teachers' psychological aspects during and after the pandemic probably suggest increasing recognition of the emotional challenges encountered by teachers. At the same time, this suggests that the pandemic has become the event which prompt scholars to be more aware of the importance of teachers' emotional well-being.

Similarly, the keyword analyses demonstrate that the field of ELTPD has moved from traditional teacher professional development issues to the psychological dimensions of teacher training and the application of emerging technologies like Gen-AI and digital tools. Besides that, other emerging topics may also include translanguaging, intercultural communication competence, inclusive education, and multilingualism. These topics are considered nascent and contemporary themes in ELTPD. Mardian and Sarab (2025) argued that research on language teacher reflection in relation to English-medium instruction, multilingualism, and global Englishes is still underexplored. They further called for more research to explore these issues. Though these research themes may have been discussed by earlier studies, their prevalence may have recently started. As the field of ELT tends to shift to Global Englishes, this has consequently caused changes in English teacher education. English teacher training and education may have started to integrate issues related to translanguaging, intercultural communication competence, inclusive education, and multilingualism.

Nevertheless, foundational topics pertaining to core competencies of teacher professional education, like reflective teaching, action research, lesson study, and assessment, still appear in the keyword analyses. This suggests that these basic competencies of teacher professional development remain important building blocks of teacher learning despite emerging trends like Gen-AI, intercultural communication, translanguaging, and psychological dimensions.

Following these findings, we proposed implications for ELTPD programs. First, ELTPD programs need to strengthen teachers' basic and core competencies. These foundational skills and knowledge include aspects like pedagogy, content, assessment, and collaboration, and professional learning communities (Taşdemir & Karaman, 2022). Next, we suggested ELTPD programs to include and integrate emerging topics such as Gen-AI, translanguaging, psychological well-being, inclusive education, and intercultural communication competence into their curricula. Thus, English teachers can catch up with the current instructional demands. With teaching knowledge and skills in these areas, they can facilitate more

effective and innovative learning experiences for their learners. Therefore, policymakers, teacher education institutions, and school leaders may need to consider facilitating English teachers' learning of this cutting-edge instructional knowledge and skills. Lastly, English teachers should be constantly engaged in professional development endeavors and update their teaching skills, as it is a never-ending learning process (Sadeghi & Richards, 2021).

Finally, compared to the earlier bibliometric research on ELTPD by Q. Liu et al. (2025), this bibliometric study has theoretically contributed to providing more recent insights into ELTPD research by focusing on publications from 2020 to 2025. This timeframe is necessary to investigate due to major shifts in research and education following the global pandemic and rapid integration of Gen-AI tools. Meanwhile, Q. Liu et al. (2025) focused on mapping the whole historical development of the field of ELTPD across an extensive publication period (1946 to 2022). Hence, this present bibliometric study extends the prior study by offering the most recent update on the research themes, research collaborations, influential publications in the field of ELTPD.

## **CONCLUSIONS AND SUGGESTIONS**

This research makes important contributions by providing a holistic overview of the most recent state of ELTPD. Specifically, this bibliometric study makes three key contributions. Theoretically, it provides a clearer understanding of the current conceptual and intellectual structures of the field of English teacher education. The identification of the dominant and emerging research themes, as well as influential scholarly works provide theoretical insights into how the field of English teacher education has evolved since the global pandemic and proliferation of artificial intelligence integration. Alongside this, the research collaboration analysis offers insights into the need for broader international collaborations among authors, institutions, and countries.

Methodologically, this study demonstrates how a bibliometric analysis can be used to systematically map research trends and unveil research collaboration patterns. Hence, this study may serve as a replicable reference model for future

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researchers to systematically map research trends in various ELT research topics particularly because this research methodology is still considered underutilized.

Equally important, this study offers practical contributions for future researchers, English teachers, teacher education institutions, policymakers, and school leaders. The identification of dominant and emerging research themes could provide future researchers about relevant research agendas and directions and inform English teachers, school leaders, teacher education institutions, and policymakers about emerging demands in English teacher professional development curricula and education.

Despite these contributions, it is important to consider the limitations of this study. This study relies entirely on the Scopus database in collecting its database. Thus, future researchers are encouraged to map ELTPD publications from other scholarly databases (e.g., Web of Science, ERIC, Dimensions, and Google Scholar) particularly for the generalizability and comparison of the findings. Researchers may use a different academic database or combine multiple databases for more comprehensive findings. It is also recommended for future researchers to include grey literature and other types of documents beyond journal articles (e.g., conference proceeding, books, book series, theses, and dissertations). By including various types of documents, potential bias may be reduced.

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