Online Peer Feedback in ELT:
A Bibliographic Coupling and Co-occurrence Network Analysis of WoS Indexed Articles from 2021 to 2024

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Abstract

Online Peer Feedback (OPF) has gained widespread popularity in language teaching and learning, due to its ease of access, adaptability, and flexibility. It has emerged as a potential field for achieving academic success in the digital era of language learning. This study aims to analyse the existing literature on OPF in English Language Teaching (ELT) by conducting a bibliometric analysis of articles obtained from the Web of Science Database published between 2021 and June 2024. A total of 215 relevant research papers were evaluated using VOS viewer software. The findings shed light on the co-occurrence of keywords from 215 research articles to observe the evolution of subject knowledge in the field of OPF in ELT. Furthermore, this study revealed the most-cited documents and conducted a bibliographic coupling analysis of the most-cited countries in this field.

Keywords: Online Peer Feedback, English Language Teaching, Bibliometric Analysis, Web of Science, VOS viewer, Bibliographic coupling

INTRODUCTION

Peer feedback entails assessing the quality, value, and effectiveness of students' learning outcomes. It is a technique in which individuals assess and offer feedback on the work or performance of their peers. In the realm of online education, peer feedback involves technology-mediated interactions in which students submit their work online and exchange feedback with their peers. It can take place through a variety of online platforms and tools, such as discussion boards, collaborative writing software, and specialized peer feedback applications (Topping, 1998). Online Peer feedback (OPF) is a crucial element of the learning process that encompasses various aspects such as diversity, collaboration, and constructive criticism. While it primarily involves interactions among the students, it may also incorporate feedback from teachers and automated systems. The fundamental objective of peer feedback is to facilitate learning by providing feedback to foster skill development and improvement. By engaging in peer feedback, students can develop a collaborative learning environment in which they can learn from one another, share insights, and engage in insightful discussions about their work. Thus, OPF is a valuable educational practice that fosters active learning, critical thinking, and communication skills among students (Topping, 2023).

OPF plays a significant role in online higher education settings by contributing to learning in several ways. In this context, online peer feedback refers to the process by which students provide and receive feedback on each other's work using digital platforms and tools. This form of feedback is facilitated by technology and removes the constraints of time and physical location. Key aspects of online peer feedback include improved learning outcomes, development of critical thinking, self-regulation, and metacognitive skills. This encourages students to reflect on their work and that of their peers, leading to a deeper

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understanding of the subject matter. The online environment allows students to carefully review materials and provide thoughtful and comprehensive feedback, which can enhance the quality of feedback and overall learning experience. Therefore, online peer feedback is a valuable instructional strategy in higher education that promotes students' active engagement, critical thinking, and collaboration (Gao et al. 2023)

Caux and Pretorius (2024) emphasized the importance of peer feedback in enhancing academic writing skills of the students. The participants viewed collaborative peer feedback as a valuable tool for improving their writing and communication abilities. Through engaging with their peers, they learned how to construct their writing effectively and communicate their ideas clearly, which boosted their confidence and self-esteem. The process of giving and receiving feedback also helped the participants uncover previously unspoken norms and practices within academia, enabling them to navigate the academic landscape with high confidence and insight. The students engaged in reflective practices through feedback, which contributed to their personal and professional growth.

RESEARCH QUESTIONS

A bibliometric overview of Online Peer Feedback (OPF) in the domain of English Language Teaching (ELT) aims to unveil extensive research dimensions in this field. This review holds great significance as it aims to (1) identify the co-occurrence of keywords in the field of OPF in ELT, (2) determine the top cited countries in this field, and (3) reveal the most-cited documents related to OPF in ELT. Therefore, this review article will facilitate further research in the field of OPF in ELT by enlightening research scholars and educators across the globe.

- **RQ1:** What are the prominent keywords obtained through keyword occurrence analysis related to OPF in ELT?
- **RQ2:** What are the most cited documents related to OPF in ELT?

- **RQ3:** What are the most pertinent countries involved in Online Peer Feedback pertaining to ELT?

REVIEW OF LITERATURE

Online peer feedback in ELT is widely recognized for its multiple benefits where previous studies have shown that this approach motivate students, enhance their writing abilities (Xing, 2014), and foster cognitive, behavioural, and socio-affective development (Tam, 2024). Additionally, integrating various online platforms can improve the learning experience by providing diverse feedback avenues, which can be customized to optimize benefits for academic writing (Zhang et al., 2022). Furthermore, OPF can retain the best aspects of traditional written feedback while overcoming logistical challenges, promoting balanced comments, and providing an anonymous environment that may encourage more honest feedback. However, some studies have yielded mixed results. For instance, while online peer feedback is generally positive, some ESL students may lack confidence in peer commenting, leading to one-way communication and unaddressed feedback (Guardado & Shi, 2007). Additionally, the quality and quantity of feedback can vary, impacting the extent of revisions and improvements in students' writing (Baharudin & Razali, 2022). Moreover, translanguaging in online peer feedback contribute to improved writing performance (Sun & Zhang, 2022). In conclusion, online peer feedback in English language teaching offers several benefits, including motivation, enhanced writing skills, and development across cognitive, behavioural, and socio-affective domains. However, the effectiveness of online peer feedback can be impacted by factors such as student confidence, feedback quality, and the use of translanguaging. Overall, while online peer feedback has its challenges, its advantages make it a valuable tool in English language teaching.

Recent studies have provided a comprehensive overview of the effectiveness and challenges of online peer feedback (OPF) in English language teaching (ELT). These studies have investigated the dynamics of OPF in English as a Second

Language (ESL) and English as a Foreign Language (EFL) settings, revealing both positive significances and areas for improvement. For example, research has shown that OPF can enhance various aspects of writing, including sentence structure, grammar, and vocabulary usage. Additionally, it has been linked to cognitive and affective gains, such as improved writing performance and increased motivation (Cao et al., 2022). Besides, studies have found that the effectiveness of OPF varies compared to other forms of feedback, with teacher feedback having a greater impact on writing quality than peer or automated feedback (Lv et al., 2021). Thus, future research should continue to explore how to optimize OPF to cater to the diverse needs of students and various educational settings (Patwary, 2023).

METHODOLOGY

Bibliometrics, a quantitative method formulated by Aria and Cuccurullo (2017) for analysing scientific data, is an open-source statistical analysis tool. It is designed to measure productivity within a research topic and the scientific data used in the current study consists of documents exported from the Web of Science database. The search strings used to identify relevant records included keywords such as 'online peer feedback' OR 'peer feedback' AND 'English Language Teaching'. The records that matched these search terms, which focused on OPF in ELT, were analysed using *VOSviewer*.

Table 1: Inclusion and Exclusion Criteria

Criteria	Inclusion	Exclusion
Language	English	Other than English
Timeline	January 2021 – June 2024	Earlier than 2021
Literature	Journal (research articles)	Other than research articles
Subject area	Education Educational Research, Language Linguistics	Other than Education Educational Research, Language Linguistics

Data analysis

The selection criteria (Table 1) were applied on 1845 articles. From these, 475 articles underwent manual screening in Phase 2 based on their titles, keywords, and abstracts. Throughout this screening process, all titles, keywords, and abstracts of the 475 articles were manually reviewed for suitability to be included in the final analysis for bibliometric research. A total of 260 articles were excluded since they were not pertinent to the study. Following the completion of phase 2 screening, 215 articles were chosen for the bibliometric analysis using *VOSviewer*.
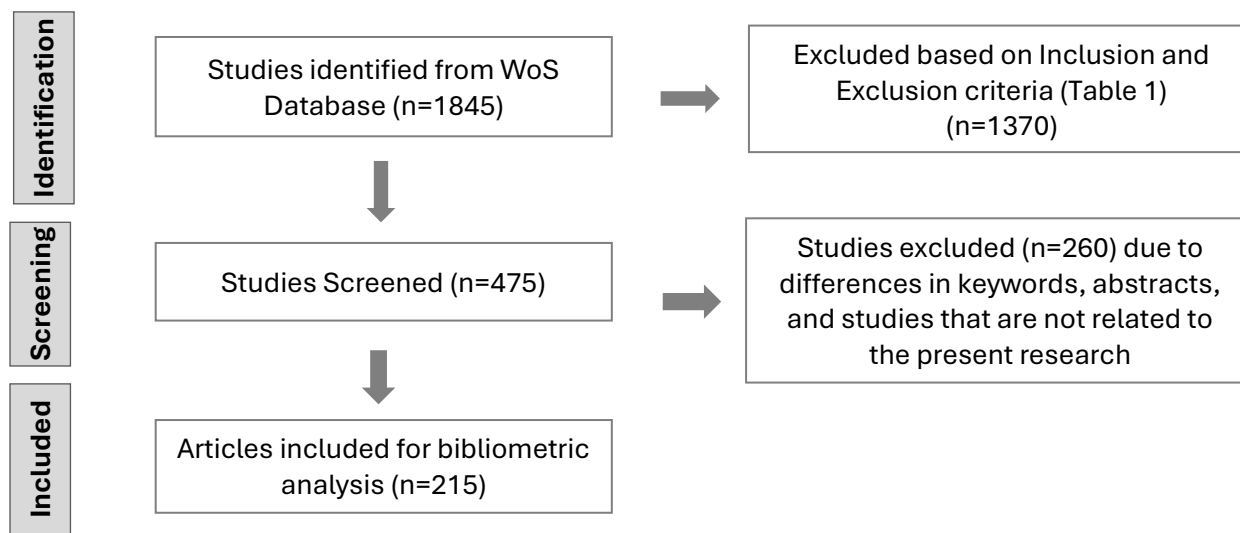

Figure 1: Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) Flow diagram

RESULTS AND DISCUSSION

Figure 2: Density Visualisation

The density visualization depicts the saturation of research in the domain of OPF in ELT. The dense area in Figure 2. is described by the number of adjacent nodes and colors, which indicate the saturation level. For instance, the highly saturated yellow color surrounds the work by Hwang (2021), Alemdag (2022), Huang (2023), and Tan (2022). This indicates that these studies have been widely conducted. In contrast, the topics of Grover(2022), Austin (2022), and Homer(2021) have rarely been studied. The findings of these studies reveal existing research gaps and opportunities for conducting research on OPF pertaining to ELT. Therefore, this visualization analysis can be employed as a starting point for future studies, such as the widely studied works by Alemdag and Yildirim (2022) in their study '*Effectiveness of Online Regulation Scaffolds on Peer Feedback Provision and Uptake: A Mixed Methods Study*' focused on how Online Regulation Scaffolds (ORS) were designed for peer assessment of writings. The results imply that ORS improves the quality of peer feedback. Consequently, using an ORS can be beneficial for students to acquire and enhance essential knowledge. Likewise, a similar study by Huang et al. (2023) entitled '*Examining the Relationship between Peer Feedback Classified by Deep Learning and Online Learning Burnout*' highlighted the role of feedback among online learners.A deep learning model was developed to classify peer feedback messages, and the results showed that providing suggestive

feedback can help alleviate learning difficulties, while negative feedback without guidance aggravates learners' burnout.Thus, these studies pave the way for future research and enlighten researchers and academicians to identify the research gap and contribute to the existing literature on OPF in ELT.
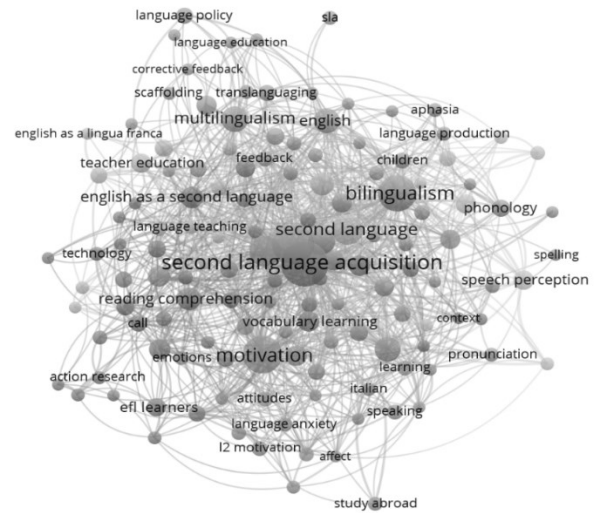

Figure 3: Co-occurrence of keywords visualisation

The co-occurrence of keywords analysis was performed using *VOSviewer* to identify the keywords that authors frequently used in their studies. With full counting, the co-occurrence of author keywords was selected with keyword occurrences of > 10. Of the 7423 keywords, only 143 met the threshold with 1139 links and a total link strength of 1617. The overall strength of the co-occurrence connections between each of the 143 keywords is calculated. The 143 keywords were classified into nine clusters as shown in Fig.3. The connection strength between the two nodes is indicated by the distance between them. A shorter distance indicated a closer relationship. Besides, the line linking the two nodes implies that they frequently appear together and nodes with the same colour belong to the same cluster. The node, 'second language acquisition,' with a total link strength of 166, occurred 143 times in the research work published in this field. Keywords such as 'second language learning' had a total link strength of 139, with a frequency of 113. Thus, keyword co-occurrence analysis illuminates research scholars by highlighting the future research areas in this field. Other nodes, such as motivation (f = 98, total link

strength = 124), bilingualism (f = 94, total link strength = 116), language learning (f = 63, total link strength = 85), and second language (f = 64, total link strength = 84) also highlight future research prospects that need to be studied in relation to OPF in ELT.
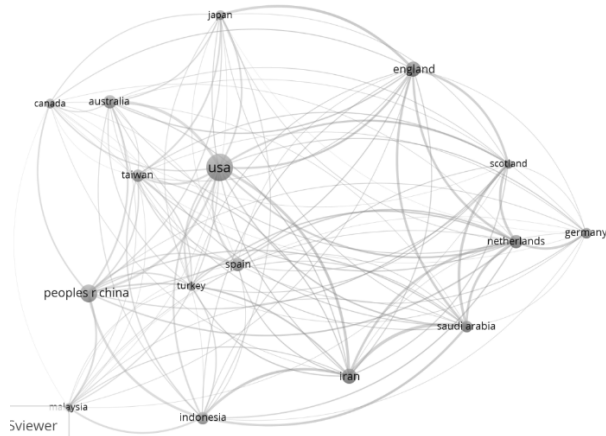

Figure 4: Bibliographic coupling of countries

The International cooperation of countries based on the co-authorship of authors is presented in Figure 4. The two different colour clusters indicate the diversity of countries in publishing research work in the field of OPF in ELT. The larger nodes represent the influential countries and the links between nodes represent the cooperative relationships among countries. The distance between the nodes and the thickness of the links represents the level of cooperation among the countries. The red cluster is the one with the most significant number of countries and is led by the USA and China. It is followed by the green cluster, including England, Saudi Arabia, Scotland, Netherlands, Iran, and Germany as the most leading countries that collaborate with each other. It implies that China plays a major role in influencing cooperative relationships in publication as the work *'Examining the Relationship between Peer Feedback Classified by Deep Learning and Online Learning Burnout'* was co-authored by Huang et al. (2023) where all the authors are from china. Thus, China encourages both international collaboration and domestic collaboration. Another work '*The Factor Structure of the Peer-Feedback Orientation Scale (PFOS): toward a Measure for Assessing Students' Peer-Feedback Dispositions'* was published by Kasch et al. (2021) which is a high-density work depicted in Fig.2. was published by authors from Netherlands and Germany indicating the collaboration between the same countries which is depicted in the green cluster. Thus, the international co-operation between countries also plays a major role in determining the future research path of OPF in ELT.

CONCLUSION AND FUTURE IMPLICATIONS

The bibliographic coupling and co-occurrence network analysis of Web of Science (WoS)-indexed articles from 2021 to 2024 reveal a complex and evolving landscape of research on online peer feedback in English Language Teaching (ELT). The findings indicate a significant focus on integrating peer assessment in online language courses, particularly since the COVID-19 pandemic, with a trend towards more specific research topics, such as engagement, feedback quality, and educational technology integration. This analysis suggests that online peer feedback is a dynamic and essential aspect of ELT, with research reflecting a combination of pedagogical innovation and technological advancement. This analysis paves the way for exploring effective strategies to enhance peer feedback and the use of AI tools in the broader context of language teaching. The findings of this study serve as a foundation for future research and practice in the ELT field, emphasizing the need for adaptable, inclusive, and technologically supported learning environments. However, it is important to note that this study has limitations, such as the use of only one database and a limited timeframe. Further research should be conducted using different databases, different time limits and exploring a broader range of perspectives on peer feedback strategies.

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