Register journal

Ten Years after Sutton (2012): Quo Vadis Feedback Literacy? (A Bibliometric Study)

Imelda Gozali,[1]* **Abdul Syahid,**[2,] **Nunung Suryati**[3]

[1]English Language Education, Faculty of Letters, Universitas Negeri Malang, Malang 65145, Indonesia and English Language Education, Teacher Education Faculty, Universitas Katolik Widya Mandala Surabaya, Surabaya 60114, Indonesia

[2]English Language Education, Faculty of Teacher Training and Education, Institut Agama Islam Negeri Palangka Raya, Palangka Raya 73112, Indonesia

[3]English Language Education, Faculty of Letters, Universitas Negeri Malang, Malang 65145, Indonesia

*) Corresponding Author
Email: Imelda.gozali.2102219@students.um.ac.id
DOI: 10.18326/rgt.v16i1.139-167

Abstract

Drawing on the construct of Academic Literacy, Paul Sutton coined the term "Feedback Literacy" in 2012. Since then, a growing body of research on Feedback Literacy has emerged from scholars worldwide. This bibliometric study then intended to trace the historical development of Feedback Literacy research over a decade and identify future trends and directions in the field. Extracting from the Scopus database and employing Bibliometrix R-tool, this study seeks to reveal the performance analysis and science mapping of the construct. PRISMA 2020 was utilized to guide the articles' search, screening, selection, and reporting. The result of the performance analysis revealed the most prominent journal (Assessment and Evaluation in Higher Education), author (David Carless), article (Carless & Boud, 2018), and keywords (students-related feedback) in feedback literacy research. The conceptual, intellectual, and social structure analyses under science mapping provided insight into popular and fundamental research themes and the collaboration network among feedback literacy authors, with Australian researchers at the forefront. The findings imply

139

that feedback literacy is a fertile ground for further research on topics such as students-related feedback, online feedback, ecological factor, and dialogic feedback. Studies outside of the context of higher education are still under-represented. This study can also aid novice scholars in finding relevant references or outlets for publication.

Keywords: bibliometric, bibliometrix, feedback, feedback literacy, scientometric

INTRODUCTION

Education entails assessment. If an assessment is seen as the touchstone of education (Black & William, 1998), then feedback can be rightly regarded as the north, the compass of teaching and learning, pointing out the right direction of the learning goals (Hattie & Timperley, 2007). Despite its overriding importance for students' achievement, feedback provision is still beset with numerous challenges, even at times perceived as teachers' worst nightmare (Yu, 2021). Students, particularly in higher education, reported dissatisfaction with feedback related to timeliness and clarity (Evans, 2013; Sandra, 2022). Teachers likewise lamented that giving feedback is an onerous and tedious task (Yu, 2021). To remedy the situation, the focus on feedback practices is gradually shifting to feedback literacy. Hence, instead of emphasizing the technicalities of feedback methods or deliveries, feedback literacy aims to educate the learners' cognitive, affective, and agentic capability in receiving and acting on feedback (Carless & Boud, 2018).

Feedback literacy is now widely recognized as being first coined by Sutton (2012). Drawing from the umbrella of Academic Literacy (Barnett & Coate, 2005), he laid the incipient foundation for the feedback literacy construct. Thus, mirroring the notion of acquiring new ways of knowing, being, and acting to be academically literate, he maintained that feedback literacy is likewise three-dimensional, containing epistemological, ontological, and practical aspects. Developing feedback literacy is, in a nutshell, about getting learners to know the meaning of the feedback given, to have the right disposition to feedback, as well as to take the appropriate action upon receiving the feedback (Sutton, 2012).

Now, ten years after Sutton's publication, numerous scholars have built upon the notion of feedback literacy by developing and refining the feedback literacy framework (Carless & Boud, 2018; Carless & Winstone, 2020; Chong,

2020; and some others), or validating it through rigorous empirical research (Han & Xu, 2019; Li & Han, 2022; and some others). Some feedback literacy research focused on students (Carless & Boud, 2018; Chong, 2020; Li & Han, 2022; Malecka, et al., 2020; Molloy et al., 2019), teachers (Boud & Dawson, 2020; Carless & Winstone, 2020; Xu & Carless, 2016), or the aspect of multimodality (Ducasse & Hill, 2019; Wood, 2021). Considering the geographical spread of feedback literacy publications, it can be seen that feedback literacy has gained traction notably in Australia (e.g. Malecka et al., 2020; Molloy et al., 2019), Hong Kong (e.g. Carless & Boud, 2018), the UK (e.g. Carless & Winstone, 2020), and China (e.g. Han & Xu, 2019, Li & Han, 2022). Thus, given the mounting interest in feedback literacy from scholars and educators alike, it seems propitious to carry out a synthesis of research works on the topic as a way of commemorating the 10th anniversary of Sutton's (2012) seminal work.

Bibliometric analysis is deemed to be the most appropriate methodological approach to perform such synthesis of a particular construct (Mukherjee et al., 2022) due to its capability of providing data visualization on individual and institutional research productivity, the main themes and trends of a particular domain, the impact of authors or journals in the field, future trends of research, as well as the collaboration network of scholars (Donthu et al., 2021). While there are extant bibliometric studies on the various constructs of feedback (Chin & Chew, 2021; Nguoi & Habil, 2021; Xie, 2022), hardly such study on feedback literacy has been found so far. Thus, to fill the void, this study attempts to undertake a bibliometric analysis of research works on feedback literacy from 2012 to 2022, with the ultimate aim of shedding light on the trends and future research direction. In particular, this study intends to perform the analysis and provide information on the following:

1. Performance analysis: a descriptive analysis of the performance of various constituents (authors, institutions, countries, journals) (Donthu et al., 2021) in feedback literacy research.
2. Science mapping analysis: examines the relationship between constituents of feedback literacy research (Donthu et al., 2021) through

co-word analysis, co-citation analysis, and co-authorship analysis. The analyses reveal, respectively, the conceptual structure, intellectual structure, and social structure of the field.

In conducting such performance and science mapping analysis, this study contributes to reveal the significance and development of feedback literacy construct in international publications. Consequently, this study is mainly exploratory in nature, with the aim of demonstrating to the scientific community the concept of feedback literacy and its progress as well as future direction and research trends.

LITERATURE REVIEW

Bibliometric Study

As one of the disciplines within the study of metrics, Bibliometric study achieved greater prominence among other meters of science, namely Scientometrics, Informetrics, Webometrics, and Altmetrics (Martin-Martin et al., 2016). This is perhaps due to the long-standing tradition of Bibliometric, which was first coined by Paul Otlet in 1934 (Syahid & Qodir, 2020). While Scientometrics and Informetrics are geared towards scientific literature and mathematical model respectively, Bibliometric study is interdisciplinary in nature, which perhaps accounts for its greater popularity. Lastly, Webometrics and Altmetrics are considered the recent phenomena in the discipline of metrics, analyzing the quantitative aspects of websites and social media respectively (Chellapandi & Vijayakumar, 2018).

The high prevalence of Bibliometric study among researchers is also attested by the nearly 2,000 bibliometric articles on social sciences being published in Scopus-indexed journals in 2020, an approximately tenfold increase from the number in 2005 (Donthu et al., 2021). Its superiority, as compared with other forms of research synthesis such as meta-analysis or systematic review, lies in its ability to analyze a large amount of dataset on a broad scope in order to perform both quantitative and qualitative analysis such as performance analysis and scientific mapping (Donthu et al., 2021; Mukherjee et al., 2022). Hence, researchers utilize bibliometric study to

capture, among others, the emerging trends in specific research domains or journal performance, patterns of collaboration among authors and institutions, the inter-relationality between keywords in a particular field, and the intellectual structure of a discipline as reflected by the citation network.

The affordances provided by the scientific database and bibliometric tools likewise greatly contributed to the rise of bibliometrics popularity. Gusenbauer and Haddaway (2020) identified up to 28 academic databases and search engines, with five being considered as open or mixed access (e.g. Google Scholar, DOAJ, and arXiv), and the remaining behind a paywall or "proprietary", such as Scopus, Web of Science, and JSTOR in terms of the mapping tools, Harzing (2007)'s Publish or Perish (PoP) is software available freely in the market and provides access to seven academic databases, including Google Scholar, Scopus, and Web of Science. In addition, it is able to display 27 metrics data such as journals, authors, topics, and institutions (Harzing, 2011). Other freely-available software, such as VOSViewer and Bibliometrix, can provide the visualization of network mapping. VOSViewer was developed by van Eck and Waltman (2007) and the VOS (Visualization of Similarity) reflects the ability to represent similarity between objects through low-dimensional distance. Bibliometrix, on the other hand, is an open-source tool developed through the R program (Aria & Cuccurullo, 2017). Overall, the aforementioned factors contribute to bibliometric studies' rising prominence.

In view of the manifold advantages offered by Bibliometric analysis, it is considered to be the most apt for the purpose of this research and is thus the methodology of choice. In the present study, the Scopus database was chosen to mine the data due to its prestige and the assured quality of its curated content (Baas et al., 2019). As for the visualization instrument, we chose Bibliometrix owing to its complete features and user-friendly interface (Mural-Muñoz et al., 2020).

Research Reviews on Feedback and Feedback Literacy

Owing to the pivotal role and the time-honored tradition of feedback practices in education, several review studies have been undertaken to analyze feedback's various aspects and constructs. Extensive meta-analyses have been

carried out to investigate the effectiveness of Corrective Feedback in SLA (Li, 2010), Oral Feedback in classroom SLA (Lyster & Saito, 2010), feedback in a computer-based learning environment (Van der Kleij et al., 2015), and the effect of negative feedback on intrinsic motivation (Fong et al., 2019). Wisniewski et al. (2020) conducted a meta-analysis of empirical research to study the effect of feedback on students' learning, intended as a follow-up to the celebrated Hattie and Timperley (2007)'s article on the power of feedback. Other scholars have also performed systematic reviews on electronic, written corrective feedback (Altamimi & Masood, 2021), oral corrective feedback (Czaholi, 2021), written corrective feedback (Chong, 2019), and learners' agentic engagement with feedback (Winstone, et al., 2017).

Zooming in on the feedback literacy construct, two recent studies showcase a review on the subject. Firstly, Nieminen and Carless (2022) conducted a critical review of 49 publications on feedback literacy. The critical lens employed was Popkewitz' concept of fabrication, which examines how feedback literacy research reinvents feedback, teachers, and students depending on whether feedback is seen as external input or as a psychological disposition of individuals. Secondly, Little et al. (2023) examined 16 studies on feedback literacy published in a ten-year period and analyzed them under a scoping review procedure. They specifically focused on finding evidence on the efficacy of feedback literacy interventions present in the 16 articles. The results revealed that the reviewed studies indicated that the feedback literacy implementation improves several aspects such as students' perception and attitudes to feedback, their self-assurance in giving feedback, and their ability to take action on the feedback received. Thus, to the best of our knowledge, bibliometric review on feedback literacy has yet to be conducted.

Lastly, three studies have been found to employ bibliometric methodology in feedback-related themes. Chin and Chew (2021) examined 412 articles from the Scopus database published between 1991 and 2021 dealing with electronic feedback. Utilizing VOSViewer as the bibliometric tool, they revealed several foci of electronic feedback research and identified the USA as the country which contributed the most to the research in this field. Nguoi and Habil (2021) similarly retrieved 276 Scopus-indexed journal

articles from the year 1985 to 2021, with peer feedback as the search criteria. With VOSViewer as the data-mapping application, they indicated the historical pattern in peer feedback research period and context, as well as prominent themes based on co-occurrence analysis. Finally, Xie (2022) made use of CiteSpace to conduct a bibliometric study investigating teachers' feedback, drawing from the Chinese Academic Journal's related publications of the past decade. Similarly, he reported the pattern of research on teachers' feedback in terms of the peak year of publication, the trends in research subjects and themes, and the dominance of empirical studies over non-empirical ones. The present bibliometric study is expected to complement the array of bibliometric research in this field, focusing on feedback literacy.

RESEARCH METHOD

Design

Bibliometric analysis was chosen as the design of this study, in line with the aim and scope of the research, namely to synthesize the performance of the various research on feedback literacy in the past decade and to identify the scientific structure of the field for future research direction (Donthu et al., 2021). Besides, the bibliometric graphical representation and data visualization allows for a quick grasp of the main information and the inter-relationship of items in a field (Wang et al., 2021). Since bibliometric study can be rightly regarded to be under the purview of systematic research (Hallinger, 2014), the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-analysis) 2020 (Page et al., 2021) guideline was adopted in line with Barrot (2020), specifically to structure the data collection process.

Data Collection

The article search was performed on Scopus (https://www.scopus.com) database, which has been widely recognized as one of the most comprehensive and high-quality abstract and citation databases of various types of publication (journals, books, proceedings), in tight competition with other renowned databases such as Web of Science (Zhu & Liu, 2020). Besides, the stringent quality assurance process and the extensive profiling of authors and

institutions have increasingly turned Scopus into the database of choice for bibliometric studies (Baas et al., 2019). Scopus was also selected as the sole database source as extra precautionary steps will have to be taken to merge more than one database to avoid data distortion (Caputo & Kargina, 2022).

The following search string was entered into the Advanced Search feature of the Scopus database web: TITLE-ABS-KEY-AUTH ("feedback literac*") AND (LIMIT-TO (PUBYEAR,2022) OR LIMIT-TO (PUBYEAR,2012)) AND (EXCLUDE (DOCTYPE,"cr") OR EXCLUDE (DOCTYPE,"er")) on February 27, 2023. Hence, the search was limited by the title, abstract, and keywords (only those containing "feedback literac*"; the * sign being used as the wildcard character to accommodate the singular and plural forms of the word), included all subject areas, publication years between 2012 and 2022, all document types except for "conference review" and "erratum", and all languages. A total of 130 documents were retrieved fulfilling these criteria, and the data were saved in .csv format.

Next, data cleaning or screening was performed on the resulting list of documents to prevent data duplicates in terms of authors' naming and to unify similar key concepts (Zhang, 2020). In this study, the initial data cleaning was performed when filtering the search criteria in the Scopus database, which resulted in the removal of two articles; an erratum and a conference review. Next, manual scrutiny revealed an article duplicate and two variants of naming two authors. Hence, one duplicate was removed, and the naming variants were combined into one ("Winstone, N." and "Winstone, N.E." were unified into "Winstone, N." and "Tai, J." and "Tai, J.H.M" were combined into "Tai, J.") using OpenRefine method (Delpeuch, 2019). Although no particular language was specified during the search, it was noted that all documents were in English. In both the document screening and evaluation processes, two of the authors worked together and any discrepancy in the discussion was settled by the third author. As the data collection in bibliometric study does not involve human nor animal participation, no ethical approval was sought. The final list of documents contained 130 articles, also saved as a .csv file. The PRISMA chart representing the entire data collection process is presented in Figure 1. (All figures and tables in this article are available in the <u>Supplementary Materials</u>).

Data Analysis

Bibliometrix 4.0, an R-based bibliometric tool (Aria & Cuccurullo, 2017), through its web-based interface Biblioshiny, was used as the data tabulation and visualization tool. Bibliometrix was chosen due to its open-source nature, comprehensive analytical features and user-friendly menu (Moral-Muñoz et al., 2020). Besides, in contrast to the majority of free software (CiteSpace and VOS Viewer), it focuses not only on data visualization, but also the data accuracy and comprehensiveness. The .csv file containing the refined and unified metadata described previously was entered into the "raw data file" input of the Biblioshiny landing page. The various tables, graphs, and visualization data under the seven types of menu ((1) Overview, 2) Sources, 3) Authors, 4) Documents, 5) Conceptual structures, 6) Intellectual structure, and 7) Social structure) (Moral-Muñoz et al., 2020) were then extracted for display and analysis.

RESULTS & DISCUSSION

Overview

The main information summary is presented in Figure 2. In sum, the 130 documents extracted on feedback literacy in the span of 10 years come from 64 sources and 263 authors. The 64 sources comprise mainly journal articles and some book chapters and conference papers. This result corroborates the finding of Nieminen and Carless (2022), who extracted 60 studies on feedback literacy published between 2011 and 2021, limiting their search to journal articles, full-length articles, and higher education settings.

The overview menu in Biblioshiny can also present the annual scientific production data which reflects the trend in the yearly number of articles published with feedback literacy as the keyword. Figure 3 shows the chart of feedback literacy documents published between 2012 and 2022. It is interesting to note that after Sutton's publication in 2012, there was a lacuna of four years, which, after a spark of interest in 2016, began to pick up again in 2018 and grew steadily until 2020. A dramatic increase occurred in 2021, followed by moderate growth in 2022.

When seen in totality, the 130 feedback literacy documents extracted are relatively small when compared to other bibliometric studies extracting documents over a one-decade period, such as Barrot (2021), who researched social media in education and collected 2,215 documents from the Scopus database, and Julia et al. (2020), who studied the researches on flipped classrooms and obtained 346 articles from Scopus as well. The scant number of documents found in this study seems to reflect the fact that feedback literacy is still a fairly novel construct. As attested by Figure 3, it was only in 2018, when Carless and Boud (2018) published their landmark article on the framework for students' feedback literacy, that studies on this topic truly took off. On the other hand, the paucity of articles on feedback literacy also seems to reflect the general neglect suffered by the realm of feedback. In a sense, the 130 articles over 10 years in this study are approximately comparable to Chin and Chew's (2021) 412 articles on electronic feedback over three decades and Nguoi and Habil's (2021) 276 articles on peer feedback over 36 years. Certainly, feedback in general could benefit from a greater number of researches.

Sources

Source analysis provides information on the productivity and impact of document sources, such as journals, books, and conference proceedings. Hence, it unveils data on the most relevant source (number of articles per source), most cited source (number of citations per source, both local and global citations), and source dynamics (cumulative number of articles yearly). Another way of representing the sources' effect is through Bradford's Law, which describes the geometric progression of the number of sources according to the number of citations (Mittal & Gupta, 2021). Following Bradford's Law, the sources are divided into three zones. The first zone contains the sources with the highest citations, also termed the Core Zone. The second zone comprises a greater number of sources needed to achieve the total citations in the Core Zone. The rest of the sources belong to Zone 3. For feedback literacy, Table 1 displays the Bradford's Law tabulation results for the top 10 sources. It reveals only one journal, Assessment and Evaluation in Higher Education, in

the Core Zone. Twenty-one sources occupy the second zone, and the remaining 42 sources belong to the third zone.

As can be seen in Table 1, the Assessment and Evaluation in Higher Education, a publication of the Taylor and Francis Group, is shown to be the forerunner as the publication outlet of choice by top feedback literacy scholars. Specifically, the journal published 47 articles on feedback literacy and received 767 local citations, thus proving to be the most relevant and impactful journal, respectively. It is interesting to note that this journal also topped the list in the bibliometric study of Nguoi and Habil (2021) on peer feedback. In terms of productivity, the journal is followed by the Innovations and Teaching in Education International journal (n = 5) and the Assessing Writing journal (n = 3). As for the number of citations, the second most impactful journal is Studies in Higher Education (n = 233), followed by Teaching in Higher Education journal (n = 151). As the names of the aforementioned journals suggest, research in feedback literacy seems to thrive in the higher education context, as does the finding of Chin and Chew (2021) and Van der Kleij et al. (2015) in the case of electronic feedback and computer-mediated feedback, respectively. This implies that feedback literacy research in other educational levels, such as lower- and upper-secondary, remains relatively under-explored. Echoing the exhortation of Czaholi (2021), who conducted a systematic literature review of research on oral corrective feedback, this study also looks forward to greater research endeavors outside of higher education settings.

Authors

Similar to Sources analysis, Bibliometric mapping of Authors likewise supplies a synthesis of authors' impact (based on local citations and the various indices (h-index, g-index, and m-index)) and productivity (articles published over time and fractionalized). In addition, the impact and productivity can also be charted according to the authors' countries and affiliations. Figure 4 presents the top 10 authors in feedback literacy research in terms of their h-index. David Carless from the University of Hong Kong is in the top position with h-index of 10, followed by David Boud (h-index = 8) of Deakin University, Australia, and Elizabeth Molloy from the University of Melbourne in the third

position (h-index = 5). The prominence of David Carless and David Boud is further confirmed by the depiction of authors' productivity over time, as shown in Figure 5. This chart shows that David Carless has the most extensive publication quantities (n = 14) and periods on feedback literacy. He is followed by David Boud (n = 9), who also published from 2018 to now, and Edd Pitt, with six publications in the past three years (2020-2022). These authors did not feature in past Bibliometric studies on peer feedback (Nguoi & Habil, 2021) and electronic feedback (Chin & Chew, 2021), suggesting the authors' focus on feedback literacy research.

Next, in terms of the corresponding authors' country of origin, Australia tops the chart with 19 cited articles on feedback literacy, as can be seen in Table 2. Of the 19 articles, 12 were published by authors of the same country, and 7 were in collaboration with at least one author from another country, thus yielding an MCP ratio of 0.21. The UK occupies the second position for productivity with 18 articles, with all except one published by authors of the same country. China is in third place with 14 articles and an MCP ratio of 0.5.

The preeminence of Australia as the locus of research in feedback literacy is not unexpected due to the academic productivity of several scholars from the CRADLE (Center for Research in Assessment and Digital Learning) center at Deakin University. The great concentration of feedback literacy research in Australia and the UK is also consistent with the finding of Little et al. (2023). However, the bibliometric study of Nguoi and Habil (2021) on peer feedback, as well as Chin and Chew (2021) on electronic feedback, presented the United States as the country that contributed the most to research on the topic, both by the number of articles and citations. In the list of this study, the USA does not feature at all in the top 10. It may be surmised that the feedback literacy construct has yet to garner the attention of the US academics working on students' feedback. Another noteworthy point is the emergence of China as the origin of productive scholars in feedback literacy, as also noted by Chin and Chew (2021) in the case of electronic feedback. Lastly, in terms of total numbers, Nguoi and Habil (2021) gathered a pool of 43 countries from their dataset on peer feedback, while this study only identified 18 in total. This modest number shows that feedback literacy has yet to arouse worldwide

interest in feedback research compared to other constructs in the feedback field.

Documents

Table 3 lists the top 10 most globally-cited documents in feedback literacy research. The most-cited article is that of Carless and Boud (2018), who popularized the term "feedback literacy" by conceptualizing a framework for students' feedback literacy in the said article. Sutton (2012), as the originator of the term, ranks second, which affirms the scholars' acknowledgment of his role in laying the foundation of the feedback literacy's body of research. Molloy et al. (2020) come in third, with their article depicting large-scale research on the characteristics of learners' feedback literacy, built on the foundation of Carless and Boud's (2018) framework. Documents analysis in Biblioshiny is also able to produce a word cloud graphic revealing the most frequently occurring authors' keywords, as shown in Figure 6. This study chose authors' keywords as the unit of analysis instead of keyword plus (keywords provided by the journals) or keywords present in titles and abstracts only. This is because authors' keywords enjoy the guarantee of the relatedness between the words and the content of the documents (Agbo et al., 2020). After excluding terms such as "feedback literacy" and "feedback", the most prominently-displayed keywords are "student feedback literacy" followed by "peer feedback.". The cumulative yearly occurrences of the words, or the word dynamic, are presented in Figure 7. It can be seen that the fastest-growing keyword, "student feedback literacy," only started to rise in 2020. Lastly, the keywords can also be charted according to the year and the frequency of their appearances, which produces the Trend Topic graph. To maximize the number of keywords per year, the "word minimum frequency" parameter is set to 1, and the "number of words per year" equals 5. Thus, Figure 8 reveals the fashionable keywords in recent times (2022), namely "student feedback literacy", "teacher feedback literacy", "higher education", "self-assessment", and "curriculum."

Conceptual Structure

While the word cloud visualization in Figure 6 merely shows the popular keywords, the conceptual structure in bibliometric is able to unveil the interrelation between words or terms extracted from documents' keywords, titles, or abstracts from the document collection, and thus displaying the relationality as clusters of words (Aria & Cuccurullo, 2017). The conceptual structure is revealed as co-word analysis and is visualized as a co-occurrence network. Co-word analysis possesses the potential to predict research trends and direction when used in tandem with co-citation analysis (Donthu et al., 2021). Figure 9 shows the co-occurrence network using the authors' keywords (n = 272) as the unit of analysis. Bibliometrix co-word analysis following Louvain's clustering algorithm yielded 36 nodes divided into three clusters. The node size reflects the frequency of the words' appearance, and the line intensity between any two terms (the edge) shows how many times the two co-occur. The keywords that appear together frequently are signified by the same color (Sharma et al., 2020). The complete list of keywords in each cluster is presented in Table 4.

It can be seen from Figure 9 that cluster 1 (red) is predominant and is centered around the keyword "feedback literacy." This cluster seems to have higher education as the common theme, looking at other frequently-occurring words involving students' agencies. The second cluster (blue) is led by the keyword "school education" and might revolve around the research on feedback literacy in the school's context. The small, green cluster might represent a specific niche in feedback literacy research, namely feedback literacies and interculturality.

Figure 9 unveils a sizable cluster (red) of keywords together with a few other minor clusters made up of relatively few keywords. It stands in contrast to the findings of Nguoi and Habil (2020), who generated three keyword clusters on peer feedback of approximately similar extension, and those of Chin and Chew (2021) with five distinct clusters of electronic feedback research. This indirectly implies that research in feedback literacy is still tightly gathered around similar themes with less than significant diversification of topics, or is somewhat monolithic. This also further affirms that feedback literacy research

is still at an incipient stage. However, it is possible that the green cluster, which is related to feedback in the school context, might develop into a major cluster in the future.

The conceptual map of a specific theme can also be represented in Bibliometrix as a thematic map to reveal the research development of the theme. The thematic map displays the distribution of the words along four quadrants in accordance with the theme's centrality (degree of relevance) and density (degree of development) (Barbosa & Ferreira-Lopes, 2021). Hence, the upper right quadrant contains the Motor Themes, namely those which are highly relevant and developed and are therefore considered the leading themes in the field. The upper left quadrant includes highly-developed but not-so-central themes and is therefore called the Niche or specialized Themes. The Basic Theme in the lower right quadrant houses keywords that can be regarded as foundational to the body of research. Lastly, keywords in the lower left quadrant might be viewed as either emerging or declining, depending on further analysis of the topic.

Figure 10 shows the visualization of the thematic map on feedback literacy based on the authors' keywords. A tabulation of the keywords (represented by the cluster label) in each quadrant is given in Table 5.

Overall, the analysis of the 328 authors' keywords retrieved in this study as visualized in Figures 6-10 can provide an indication of popular research topics and predict future trends in the field. The word cloud in Figure 6 indicates that feedback literacy research on students, as expressed by keywords such as "student feedback literacy", "peer feedback", and "assessment" (27 occurrences in total), still dominate the feedback literacy research landscape (excluding "feedback literacy" and "feedback"). This is further confirmed by the words' growth (Figure 7), which depicts the steadily rising trend of student-related feedback and assessment keywords. Similarly, the thematic map of Figure 10 locates student-related feedback keywords in the Motor and Basic Theme quadrants, thus further affirming the prominence of those concepts in powering feedback literacy investigations. Given that student-to-student feedback is shown to be more effective than teacher-to-

student, as demonstrated by Wisniewski et al. 's (2020) meta-analysis of educational feedback research, this trend seems to be heading in the right direction. Besides, peer feedback was also established as one of the foci of research in electronic feedback, according to Chin and Chew (2021)'s study.

Intellectual Structure

The intellectual structure of a field is presented in bibliometric studies through co-citation analysis, which measures the number of times two articles are concurrently cited in another article (Aria & Cuccurullo, 2017). Thus, it reveals the intellectual linkages between the chosen fields, such as among authors, papers, and sources. In the resulting co-citation network map, the citation frequency is reflected by the node size, while the strength and distance of the linkage are shown by the intensity and length of the connecting lines.

The result of the Bibliometrix visualization of co-citation analysis using "papers" as the field is given in Figure 11. For ease of analysis, only 50 nodes (papers) are displayed. It reveals three distinct clusters, the first of which is the red cluster led by "carless d. 2018." This node can be deduced to belong to Carless and Boud (2018) 's document on students' feedback literacy framework. Sutton's (2012) paper is the second biggest node in this cluster, reflecting the closeness of the two documents in being cited in other articles. The second cluster, colored blue, is centered around "hattie j. 2007." This node can be traced back to Hattie and Timperley's (2007) monumental work on the power of feedback. Surveying the titles of articles in this array, we can surmise that this blue cluster comprises research dealing with feedback practices in higher education. Lastly, the third and green cluster has "winstone n. e. 2017-1" at the top. This node seems to refer to the work of Dr. Naomi Winstone and colleagues on the barriers to students' feedback seeking and recipience, thus leading a cluster of research focusing on improving feedback practice for greater students' uptake.

Considering Figure 11 and the previously shown Table 3, the article entitled "The development of student feedback literacy: enabling uptake of feedback" by Carless and Boud (2018) proves to be the most impactful for feedback literacy research and is at the center of the biggest research cluster

on feedback literacy. This finding accords with the scoping review of Little et al. (2023), who likewise revealed that Carless and Boud (2018)'s student feedback literacy framework underpins most of the feedback literacy research. The second most globally-cited paper, as well as the second biggest node in the same research cluster as Carless and Boud (2018), is that of Sutton (2012), who wrote about the concept of feedback literacy built upon the notion of academic literacy. These data, revealing both documents' impact and proximity to one another in the intellectual structure mapping, highlight the role played by both articles in laying the foundation of feedback literacy research. As mentioned earlier, Paul Sutton pioneered the feedback literacy endeavor by coining the term, while David Carless and David Boud ignited the research spark by proffering the framework for students' feedback literacy.

Interestingly, this phenomenon of the author who coins the term being less popular than the subsequent authors mirrors the development of Bibliometric study itself. Although Paul Otlet was the first who proffered the term 'bibliométrie' in 1934, it was Pritchard who in 1969 was considered globally as the founder of Bibliometric, turning Paul Otlet into the forgotten founder of Bibliometric (Rousseau, 2014). In the case of feedback literacy, the predominance of Carless and Boud (2018) article over Sutton (2012) might be due to the recency of publication, the effective visualization and the far-reaching applicability of the student feedback literacy framework, rendering it highly practicable for further research. Hence, after a vacuum of six years, Carless and Boud (2018) managed to propel feedback literacy research into global fame.

Social Structures

Last but not least, Bibliometrix is able to portray the extent and degree of collaboration between authors, countries, and institutions for a particular research topic, which is displayed as a collaboration network map. Figure 12 reflects the network of institutional collaboration in the field of feedback literacy. It can be seen that Deakin University, which houses the Centre for Research in Assessment and Digital Learning (CRADLE) led by Prof. David Boud, emerges as the powerhouse in feedback literacy research, in close

collaboration with the University of Hong Kong and several others, with some connections with a cluster led by the University of Melbourne. Another cluster is made up of the University of British Columbia in Canada and the University of South Australia. Lastly, there were two Asian university clusters; one made up of the Education University of Hong Kong and the University of Macau, and the other formed by the Guangdong University of Foreign Studies and the School of Humanities and Social Sciences of Harbin Institute of Technology, Shenzhen, China.

Quo Vadis Feedback Literacy?

So, quo vadis feedback literacy? In Sienkiewicz's (2012) story, the fleeing St. Peter returned to Rome to face martyrdom after posing the same question to the Lord. Unlike St. Peter's character in the novel, it can be conjectured that feedback literacy will not meet an untimely death but continues to grow as a fertile research ground. Figure 3 charts the marked increase in feedback literacy documents in the past two years, suggesting that this theme will continue its upward movement. In a recent webinar, Professor Icy Lee, a prominent author on assessment and feedback from the Chinese University of Hong Kong, pointed to feedback literacy as the avenue for future research in the feedback milieu (Lee, 2022). Chong (2019) also advocated feedback literacy as one of the conceptual underpinnings to enrich research on written corrective feedback. Chin and Chew (2021) highlighted the need to investigate students' feedback literacy more to enhance feedback uptake and effectiveness. Thus, despite the term being already ten years old, feedback literacy research is still in its infancy and is expected to develop further.

And which way is feedback literacy heading to? Since research in this construct is still relatively at an incipient stage, it might be too early to talk about a research agenda. However, some promising future topics, gleaned from this Bibliometric study and other sources, can be suggested. For example, topics related to online feedback, which features as one of the Motor Themes (Figure 10), might continue to rise in this post-pandemic wired world, in line with Chong (2019)'s finding on the researchers' mounting interest in electronic and computer-mediated Written Corrective Feedback ("WCF").

Chong (2019) also identified future trends in WCF research to include in-depth qualitative research involving socio-cultural, socio-emotional, and personal factors, or what he termed as an ecological perspective. This study also unveiled the keyword "self-assessment" as one of the recent trend topics in Figure 8, as well as the keyword "online feedback" in the Motor Theme quadrant of Figure 10. Thus, self-assessment supported by technology, such as the use of Automated Writing Evaluation (AWE) which in recent times has been powered by Artificial Intelligence (Grammarly, Quillbot, ChatGPT), might be a fruitful research avenue in feedback literacy. Lastly, another driving topic in the Motor Theme includes "feedback dialogue" (Figure 10). In a webinar given by Prof. David Carless in January 2022, he proffered an enhanced positive feedback practice, which encompasses opportunities for dialogue, scaffolding, and coaching, among others. Hence, dialogic feedback seems to be another promising topic for feedback literacy. In that same webinar, Prof. Carless also mentioned feedback requests (learners specifying the areas they want to be given feedback to) and program-based feedback strategies to propel future feedback literacy research (Carless, 2022). Geographically, scholars from countries yet unmentioned in Table 2 are invited to contribute to the feedback literacy research paradigm in order to enrich the contextual diversity of the field. Last but not least, researchers outside of higher education context and differing subject courses are certainly welcome to investigate this topic.

This study possesses some weaknesses and limitations, one of which involved the data cleaning process. Despite the diligent effort to scrutinize the data, minor duplication occurred, which pertains to the use of "and" and "&" in journals' naming from the database's metadata. Secondly, this study is both time- and database-bound. For the former, data retrieval was conducted only at one point of time, and is thus not reflective of the pace of publication dynamic. The study is likewise database-bound, with only Scopus being the sole source. On the other hand, no bibliometric tool thus far is able to perform an analysis on the combined data from two databases (Aria & Cuccurullo, 2017). Despite these limitations, this study hopes to have made substantial contributions in promoting feedback literacy research by combining both

performance analysis and science mapping at the same time, as suggested by Donthu et al. (2020)

For future research, this study can be complemented with an in-depth content analysis of feedback literacy articles, which can potentially unpack other aspects of the field such as article type (conceptual vs. empirical), research design (quantitative vs. qualitative), or more detailed overview of the participants (education and proficiency levels), akin to Chong's (2019) study. Scholars in the field of assessment might also be interested in carrying out a Bibliometric study on assessment literacy, which, to the best of our understanding, is still nonexistent.

Being perhaps the first to carry out bibliometric analysis on feedback literacy, the results of this study extend the scholarly discussion on feedback literacy by providing a quantitative basis for signaling where future research direction is heading. Another practical implication is the contribution to feedback researchers by signaling key publications, outlets, and mainstream authors in the field, thus laying the groundwork for greater research in this area. Lastly, this study also indirectly carries pedagogical implications by highlighting the importance of some feedback practices in promoting feedback literacy, notably peer feedback and digital feedback, in the world of education.

CONCLUSION

In commemoration of Sutton's (2012) introduction of the notion of 'feedback literacy,' this study aims to synthesize the research panorama of feedback literacy in the past 10 years, with a view of signaling future research direction. Bibliometric analysis, utilizing Bibliometrix R-tool, was the methodology of choice, with PRISMA 2020 to guide the documents' search and selection process. The search on the Scopus database returned 130 documents from 64 sources and 263 authors, matching the search string. The performance analysis of the Biblioshiny application identified the most prominent journal, author, and article in feedback literacy, along with popular keywords that can guide future research. In addition, the science mapping analysis provided insight into the field's conceptual and intellectual structure, indicating the importance of peer feedback and assessment grounding feedback literacy

research. In sum, research on feedback literacy is expected to keep burgeoning, and scholars from various educational levels, courses, and countries still underrepresented in this study are encouraged to contribute to the feedback literacy body of research.

Acknowledgments

Supplementary Materials

The tables and figures in this article are available [here](#).

REFERENCES

Agbo, F. J., Oyelere, S. S., Suhonen, J., & Tukiainen, M. (2021). Scientific production and thematic breakthroughs in smart learning environments: a bibliometric analysis. Smart Learning Environments, 8(1), 1–25. https://doi.org/10.1186/s40561-020-00145-4

Altamimi, O. A., & Masood, M. (2021). Teacher electronic written corrective feedback, trends and future directions. Arab World English Journal, 12(3), 308–322. https://doi.org/https://dx.doi.org/10.24093/awej/vol12no3.21

Aria, M., & Cuccurullo, C. (2017). Bibliometrix: An R-tool for comprehensive science mapping analysis. Journal of Informetrics, 11(4), 959–975. https://doi.org/10.1016/j.joi.2017.08.007

Baas, J., Schotten, M., Plume, A., Côté, G., & Karimi, R. (2020). Scopus as a curated, high-quality bibliometric data source for academic research in quantitative science studies. Quantitative Science Studies, 1(1), 377–386. https://doi.org/10.1162/qss_a_00019

Barbosa, M. W., & Ferreira-Lopes, L. (2021). Emerging trends in telecollaboration and virtual exchange: a bibliometric study. Educational Review, 1–29. https://doi.org/10.1080/00131911.2021.1907314

Barrot, J. S. (2021). Scientific mapping of social media in education: A decade of exponential growth. Journal of Educational Computing Research, 59(4), 645–668. https://doi.org/10.1177/0735633120972010

Black, P., & Wiliam, D. (2010). Inside the black box: Raising standards through classroom assessment. Phi Delta Kappan, 92(1), 81–90. https://doi.org/10.1177/003172171009200119

Boud, D., & Dawson, P. (2021). What feedback literate teachers do: an empirically-derived competency framework. Assessment and Evaluation in Higher Education, 1–14. https://doi.org/10.1080/02602938.2021.1910928

Caputo, A., & Cargina, M. (2022). A user-friendly method to merge Scopus and Web of Science data during bibliometric analysis. Journal of Marketing Analytics, 10, 82–88. https://doi.org/https://doi.org/10.1057/s41270-021-00142-7

Carless, D. (2022, January 22). Feedback literacy in higher education [video]. YouTube. https://www.youtube.com/watch?v=BmcExCZf3_4

Carless, D., & Boud, D. (2018). The development of student feedback literacy: enabling uptake of feedback. Assessment and Evaluation in Higher Education, 43(8), 1315–1325. https://doi.org/10.1080/02602938.2018.1463354

Carless, D., & Winstone, N. (2020). Teacher feedback literacy and its interplay with student feedback literacy. Teaching in Higher Education. https://doi.org/10.1080/13562517.2020.1782372

Chellappandi, P., & Vijayakumar, C. S. (2018). Bibliometrics, Scientometrics, Webometrics/Cybermetrics, Informetrics and Altmetrics--An emerging field in Library and Information Science Research. Shanlax International Journal of Education, 7(1), 5-8. http/doi.org/10.5281/ zenodo.2529398

Chin, H., & Chew, C. M. (2021). Profiling the research landscape on electronic feedback in educational context from 1991 to 2021: a bibliometric analysis. In Journal of Computers in Education, 8)4 (Vol. 8, Issue 4). Springer Berlin Heidelberg. https://doi.org/10.1007/s40692-021-00192-x

Chong, S. W. (2021). Reconsidering student feedback literacy from an ecological perspective. Assessment and Evaluation in Higher Education, 46(1), 92–104. https://doi.org/10.1080/02602938.2020.1730765

Chong, S. W. (2019). A systematic review of written corrective feedback research in ESL/EFL contexts. Language Education and Assessment, 2(2), 57–69. https://doi.org/10.29140/lea.v2n2.138

Coate, K., & Barnett, R. (2005). Engaging the curriculum in higher education. Open University Press.

Czaholi, A. (2021). The effectiveness of oral corrective feedback in experimental and quasi-experimental studies: A systematic literature review. Independen, 36. http://lnu.diva-portal.org/smash/get/diva2:1567543/FULLTEXT01.pdf%0Ahttp://urn.kb.se/resolve?urn=urn:nbn:se:lnu:diva-104875

Darmawansah, D. (2021). A Bibliometric mapping of educational technology in Indonesia (2011-2020). Indonesian Scholars Scientific Summit Taiwan Proceeding, 3, 8–15. https://doi.org/10.52162/3.2021107

Delpeuch, A. (2019). A complete language for faceted dataflow programs. arXiv preprint arXiv:1906.05937. https://doi.org/10.48550/arXiv.1906.05937

Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. Journal of Business Research, 133(April), 285–296. https://doi.org/10.1016/j.jbusres.2021.04.070

Ducasse, A. M., & Hill, K. (2019). Developing student feedback literacy using educational technology and the reflective feedback conversation. Practitioner Research in Higher Education, 12(1), 24-37.

Evans, C. (2013). Making sense of assessment feedback in higher education. Review of Educational Research, 83(1), 70–120. https://doi.org/10.3102/0034654312474350

Fong, C. J., Patall, E. A., Vasquez, A. C., & Stautberg, S. (2019). A meta-analysis of negative feedback on intrinsic motivation. Educational Psychology Review, 31(1), 121–162. https://doi.org/10.1007/s10648-018-9446-6

Gusenbauer, M., & Haddaway, N. R. (2020). Which academic search systems are suitable for systematic reviews or meta-analyses? Evaluating retrieval qualities of Google Scholar, PubMed, and 26 other resources. Research Synthesis Methods, 11(2), 181-217. https://doi.org/10.1002/jrsm.1378

Hallinger, P. (2014). Reviewing reviews of research in educational leadership: An empirical assessment. Educational Administration Quarterly, 50(4), 539–576. https://doi.org/10.1177/0013161X13506594

Han, Y., & Xu, Y. (2021). Student feedback literacy and engagement with feedback: a case study of Chinese undergraduate students. Teaching in Higher Education, 26(2), 181–196. https://doi.org/10.1080/13562517.2019.1648410

Harzing, A. W. (2019). Publish or perish. 2007.

Harzing, A. W. (2011). The publish or perish book. Melbourne: Tarma Software Research.

Hattie, J., & Timperley, H. (2007). The power of feedback. Review of Educational Research, 77(1), 81–112. https://doi.org/10.3102/003465430298487

Julia, J., Dolifah, D., Afrianti, N., Isrokatun, I., Soomro, K. A., Erhamwilda, E., Supriyadi, T., & Ningrum, D. (2020). Flipped classroom educational model (2010-2019): A bibliometric study. European Journal of

Educational Research, 9(4), 1377–1392. https://doi.org/10.12973/eu-jer.9.4.1377

Lee, I. (2022, March 26). Teaching written communication skills [video]. YouTube. https://www.youtube.com/watch?v=ULaeoSuh14I

Li, F., & Han, Y. (2022). Student feedback literacy in L2 disciplinary writing: insights from international graduate students at a UK university. Assessment and Evaluation in Higher Education, 47(2), 198–212. https://doi.org/10.1080/02602938.2021.1908957

Li, S. (2010). The effectiveness of corrective feedback in SLA: A meta-analysis. Language Learning, 60(2), 309–365. https://doi.org/10.1111/j.1467-9922.2010.00561.x

Little, T., Dawson, P., Boud, D., & Tai, J. (2023). Can students' feedback literacy be improved? A scoping review of interventions. Assessment & Evaluation in Higher Education, 1-14. https://doi.org/10.1080/02602938.2023.2177613

Lyster, R., & Saito, K. (2010). Oral feedback in classroom SLA: A meta-analysis. Studies in Second Language Acquisition, 32(2). https://doi.org/10.1017/S0272263109990520

Malecka, B., Boud, D., & Carless, D. (2020). Eliciting, processing and enacting feedback: mechanisms for embedding student feedback literacy within the curriculum. Teaching in Higher Education, 1–15. https://doi.org/10.1080/13562517.2020.1754784

Martín-Martín, A., Orduña-Malea, E., Ayllón, J. M., & López-Cózar, E. D. (2016). The counting house: Measuring those who count. Presence of bibliometrics, scientometrics, informetrics, webometrics and altmetrics in the Google Scholar citations, Researcherid, ResearchGate, Mendeley & Twitter. arXiv preprint arXiv:1602.02412. https://doi.org/10.48550/arXiv.1602.02412

Mittal, G., & Gupta, P. (2021). A bibliometric review of mobile banking adoption literature. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.3993160

Molloy, E., Boud, D., & Henderson, M. (2020). Developing a learning-centred framework for feedback literacy. Assessment and Evaluation in Higher Education, 45(4), 527–540. https://doi.org/10.1080/02602938.2019.1667955

Moral-Muñoz, J. A., Herrera-Viedma, E., Santisteban-Espejo, A., & Cobo, M. J. (2020). Software tools for conducting bibliometric analysis in science: An up-to-date review. Profesional de La Informacion, 29(1), 1–20. https://doi.org/10.3145/epi.2020.ene.03

Mukherjee, D., Lim, W. M., Kumar, S., & Donthu, N. (2022). Guidelines for advancing theory and practice through bibliometric research. Journal of Business Research, 148, 101–115. https://doi.org/10.1016/j.jbusres.2022.04.042

Nguoi, C. C. L., & Habil, H. (2021). Bibliometric analysis of research on peer feedback in teaching and learning. Pertanika Journal of Social Sciences and Humanities, 29(3), 1957–1980. https://doi.org/10.47836/pjssh.29.3.25

Nicol, D., Thomson, A., & Breslin, C. (2014). Rethinking feedback practices in higher education: a peer review perspective. Assessment & Evaluation in Higher Education, 39(1), 102-122. https://doi.org/10.1080/02602938.2013.795518

Nieminen, J. H., & Carless, D. (2022). Feedback literacy: A critical review of an emerging concept. Higher Education, 1-20. https://doi.org/10.1007/s10734-022-00895-9

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T, Loder, E. W., Mayo-Wilson, E., McDonald, S., … Moher, D. (2021). The PRISMA 2020

statement: An updated guideline for reporting systematic reviews. The BMJ, 372. https://doi.org/10.1136/bmj.n71

Rousseau, R. (2014). Forgotten founder of bibliometrics. Nature, 510(7504), 218-218. https://doi.org/10.1038/510218e

Sandra, L. T. E. (2022). L2 writers' response to and use of teacher feedback: an activity theory perspective. The Journal of Asia TEFL, 19(1), 66–92.

Sharma, P., Singh, R., Tamang, M., Singh, A. K., & Singh, A. K. (2021). Journal of teaching in travel &tourism: a bibliometric analysis. Journal of Teaching in Travel and Tourism, 21(2), 155–176. https://doi.org/10.1080/15313220.2020.1845283

Sienkiewicz, H. (2012). Quo Vadis (Barnes & Noble Digital Library). Union Square & Co.

Sutton, P. (2012). Conceptualizing feedback literacy: knowing, being, and acting. Innovations in Education and Teaching International, 49(1), 31–40. https://doi.org/10.1080/14703297.2012.647781

Syahid, A., & Qodir, A. (2021). Journal of Language and Linguistic Studies: A fifteen-year bibliometric quest for a bigger impact. Journal of Language and Linguistic Studies, 17(1), 290-314. https://doi.org/10.17263/jlls.903415

Van der Kleij, F. M., Feskens, R. C. W., & Eggen, T. J. H. M. (2015). Effects of feedback in a computer-based learning environment on students' learning outcomes: A meta-analysis. Review of Educational Research, 85(4), 475–511. https://doi.org/10.3102/0034654314564881

Van Eck, N. J., & Waltman, L. (2007). VOS: A new method for visualizing similarities between objects. In Advances in Data Analysis: Proceedings of the 30 th Annual Conference of the Gesellschaft für Klassifikation eV, Freie Universität Berlin, March 8–10, 2006 (pp. 299-306). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-540-70981-7

Wang, J., Li, X., Wang, P., Liu, Q., Deng, Z., & Wang, J. (2022). Research trend of the unified theory of acceptance and use of technology theory: A bibliometric analysis. Sustainability (Switzerland), 14(1). https://doi.org/10.3390/su14010010

Winstone, N. E., Nash, R. A., Parker, M., & Rowntree, J. (2017). Supporting learners' agentic engagement with feedback: A systematic review and a taxonomy of recipience processes. Educational Psychologist, 52(1), 17–37. https://doi.org/10.1080/00461520.2016.1207538

Wisniewski, B., Zierer, K., & Hattie, J. (2020). The Power of Feedback revisited: A meta-analysis of educational feedback research. Frontiers in Psychology, 10(January), 1–14. https://doi.org/10.3389/fpsyg.2019.03087

Wood, J. (2021). A dialogic technology-mediated model of feedback uptake and literacy. Assessment and Evaluation in Higher Education, 46(8), 1173–1190. https://doi.org/10.1080/02602938.2020.1852174

Xie, W. (2022). A Bibliometrics analysis on teacher's feedback research based on CiteSpace through data visualization. Scientific Programming, 2022. https://doi.org/10.1155/2022/3789810

Xu, Y., & Carless, D. (2017). 'Only true friends could be cruelly honest': cognitive scaffolding and social-affective support in teacher feedback literacy. Assessment and Evaluation in Higher Education, 42(7), 1082–1094. https://doi.org/10.1080/02602938.2016.1226759

Yu, S. (2021). Feedback-giving practice for L2 writing teachers: Friend or foe? Journal of Second Language Writing, 52(January), 100798. https://doi.org/10.1016/j.jslw.2021.100798

Zhang, X. (2019). A bibliometric analysis of second language acquisition between 1997 and 2018. Studies in Second Language Acquisition, 17, 1–24. https://doi.org/10.1017/S0272263119000573

Zhu, J., & Liu, W. (2020). A tale of two databases: The use of Web of Science and Scopus in academic papers. Scientometrics, 123, 321–335. https://doi.org/https://doi.org/10.1007/s11192-020-03387-8