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Bibliometric Analysis Using VOSviewer with Publish or Perish of CEFR-based Comparison of English Language Teaching Models for Communication

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A B S T R A C T

This article aims to synthesize research related to the use of CEFR-based Comparison of English language teaching models for communication at the primary school level from 2020-2024 using the bibliometric analysis method assisted by mapping analysis. The data sources were taken from the Google Scholar database for the period 2020 - 2024. A total of 500 documents were found in the last 5 years. According to the research results, the number of publications on statistical significance testing both increases and decreases every year. From a total of 500 documents, as follows: in 2020 there were 86 related research papers, in 2021 there were 98 papers, in 2022 there were 103 papers, in 2023 there were 81 papers and related papers in 2024 there were 16 papers. The results of Article data maps produce three visualizations: network visualization, overlay, and density visualization. The mapping results show that statistical research is still needed, especially CEFR-based comparison of English language teaching models for communication at the primary school level. This study concludes that the research trend discussing statistics is decreasing CEFR-based comparison of English language teaching models. Although in terms of use, it is still very important. This is especially true for processing quantitative research data.

1. INTRODUCTION

In Thailand, education has been used as a tool for creating citizens since the change of government. and realizing that democracy can develop People must be educated and have basic knowledge. Promoting competence and ability to communicate in English among Thai people is therefore considered an urgent need in Thailand today in a situation where the proficiency level of Thai people in English is still at a very low level. With the commencement of the ASEAN Economic Community (AEC), and given that Thailand is reputed for low levels of English proficiency when compared to other nations, there is a necessity for some progress to be made to rectify the situation (Pongsin *et al.*, 2023)). For effective communication with people from other AEC countries and foreigners, Thai students need to develop their English language skills as well as abilities. However, of the four skills to be developed for successful communication, speaking is particularly important (Boonkit, 2010; Zaremba, 2006).

Accordingly, the ability to communicate employing speaking has been identified to be very beneficial (Alzoubi & Grill, 2021). As a criterion for new recruitment, Zaremba (2006) argued that speaking ability is prioritized over experience, motivation, and academic credentials. So, for successful communication with other nations, and since Thailand is attributed to poor levels of English proficiency, enhancing students' speaking ability should be of utmost importance (Noom-ura, 2013; Phensiri, 1993). Although communication is very important. However, speaking in a language that is different from the learner's native language is quite challenging (Al Hosni, 2014). Speaking is therefore an important challenge for the learner. In addition to being related to verbal communication, it is also related to non-verbal factors such as age, and listening ability. Social, cultural, and emotional. In general, students also face difficulties in learning to speak, such as difficulty speaking and lack of vocabulary to use. mother tongue disrupted and lack of confidence in expressing yourself.

Specifically in Thailand, its challenges in acquiring and developing spoken English are equally noted (Tanasopon, 2006; Noom-ura, 2013). Most students can read, write, and understand when spoken. Others speak English. However, they are unable to express themselves through speaking (Noom-Ura, 2013). Moreover, even though students are exposed to learning English at an early age and continue to learn it until an advanced level, most of them are unable to communicate effectively by speaking. This may be due to 1) lack of vocabulary to express themselves and 2) speaking with incorrect grammar and poor pronunciation. and above all 3) lack of motivation to speak (Noom-ura, 2013). Some researchers argue that the cause of difficulties does not depend only on the learner's attitude and ability. But it also depends on the teacher, teaching methods, assessment, and teaching media (Jensen & Konradsen, 2018; Noom-ura, 2013).

In conformity with the government's educational policies, seeking lasting solutions to the challenges of English language teaching and learning generally and with the ultimate aim of improving oral communication (speaking), attempts have been made to address and solve these problems. For example, schools employ more qualified native English speakers to teach and provide students with opportunities to practice communication and interaction; Thai teachers attend many pedagogy workshops to improve themselves; researchers have investigated new teaching methods to enhance learners' skills. However, most recently at the national level, the Common European Framework of Reference (CEFR) has been adopted to be used as a framework to design school curriculums, guide the teaching and learning process, and help in selecting materials for teaching and learning. Though CEFR descriptors are very similar to the descriptors of the Basic Core Curriculum 2008 of Thailand, CEFR is more rigorous and practical. It has been tested and proven to be an effective framework to guide teaching

and learning internationally. Amongst other benefits, CEFR promotes CLT. In light of CLT, the Task-Based Learning and Teaching (TBLT) approach which focuses learners on using English in their daily activities is underlined.

A synthesis of research on the development of an English language learning model for communication using the workload concept and the EU language proficiency standard framework for students. Grade 6 is another method, a process used to acquire knowledge. and new facts or solve problems in teaching and learning systematically according to academic principles with reasons and results in explaining research findings leading to various concepts, principles, or theories (Qarareh, 2012). The researcher therefore saw that research synthesis related to development Providing English language learning for communication following the EU Language Proficiency Standards Framework for Grade 6 students will help to summarize the knowledge gained from the research results. From the study, it was found that in the period 2020–2024, there were studies on the use of various teaching methods to develop academic achievement in English subjects. One interesting model is the development model for teaching English for communication using workloads as the base.

This model not only allows students to practice activities on their own but is also considered another stimulating method. The interest of learners and increase academic achievement very well. The researcher is therefore interested in studying various research issues related to the development of teaching English for communication by using tasks as a base to synthesize the elements and lead Those research results can be used to benefit teaching and learning. further study of the English language and a synthesis of research related to the development of work-based English communicative teaching between 2018–2023 (Yang & Wu, 2012). We searched from the Google Scholar database, which is a search service. Thesis document database Teacher's research report Collected from various universities across the country so that society can apply this knowledge to expand on previous knowledge. and develop further by research results which are obtained from systematic research and study. Transmitted with quality and standards suitable for publication and dissemination. Every research paper has gone through the process of consideration by a committee of experts, evaluating and considering until the complete research paper is obtained and published on the website. The researcher therefore saw that the synthesis would lead to research on English language teaching. From now on, the results of the research synthesis will be able to be applied to benefit the teaching profession as well.

2. METHOD

Bibliometric analysis was carried out as a research method. There are several stages of bibliometric analysis, including: Collecting article data is the first step in conducting literature research using bibliometric analysis. At this stage, published research documents related to the topic "Statistical significance" are collected. The article data used is article data indexed by Google Scholar from 2020 - 2024. Article data is collected via the Publish or Perish application. The results of collecting article data using Publish or Perish resulted in 500 articles for analysis. The collected research article data is saved in (*.csv) format so that it can be analyzed using Microsoft Excel software, and (*.ris) format so that it can be analyzed and visualized using the VOSviewer application. After data collection, article data was filtered to see the completeness of components (such as year). Next, the article data was analyzed using Ms. Excel and visualized using VOSviewer. More detailed stages regarding the analysis steps are explained in our previous research (Al Husaeni & Nandiyanto, 2022).

3. RESULTS AND DISCUSSION
3.1. Annual Report Research

Table 1 presents the annual report on research on " CEFR-based comparison of English language teaching models for communication at the primary school level " which has been published in international journals. As a result, it was found that the total number of documents that appeared over the last 5 years is 500 documents. Moreover, details of the number of research documents regarding the " CEFR-based comparison of English language teaching models for communication " are shown as follows, in 2020, there were 86 documents. In 2021, there were 98 documents, and the highest number of documents were found in 2022, many 103 documents. In 2023 and 2024, there were 81 and 16 documents, respectively. In addition, **Figure 1**, displays a graph of the decline in the number of publications regarding " CEFR-based comparison of English language teaching models for communication " more precisely in the last 5 years.

Table 1. Annual report of research on " CEFR and English Language Teaching models for communication ".

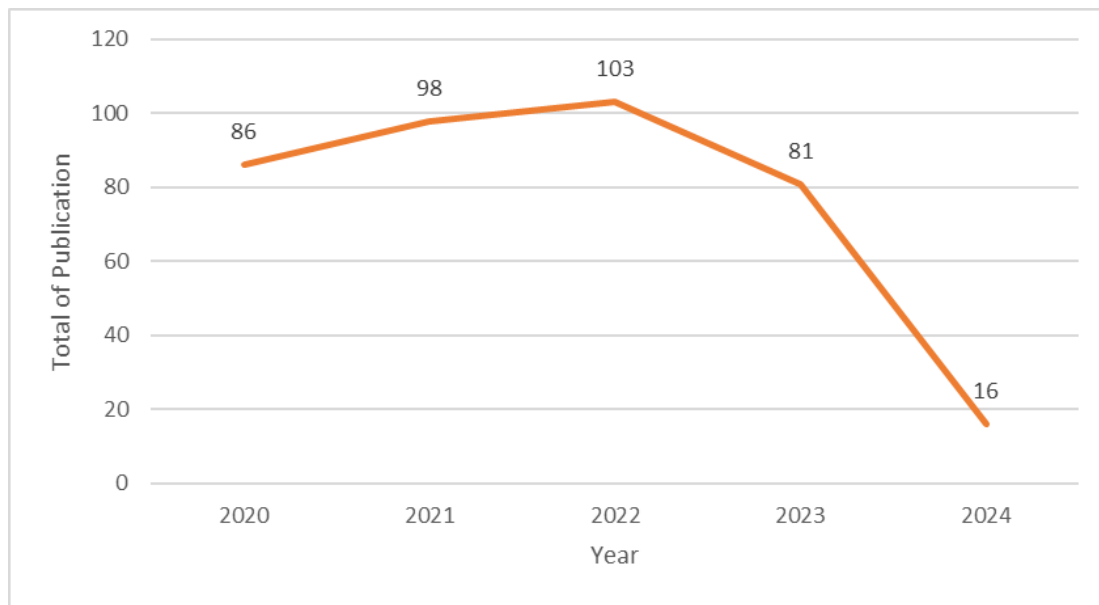| Year	Document	Percentages (%)
2020	86	22.27
2021	98	25.52
2022	103	26.82
2023	81	21.09
2024	16	4.16
Total	384	99.86

Figure 1. Annual report of publication.

3.2. The Trend of Virtual Laboratory Research Citation 2020-2024

In this research, we present 20 articles regarding different test statistics that have the highest number of citations. **Table 2** presents some metadata from articles with the highest number of citations. Based on **Table 2**, The researcher has studied research related to organizing learning formats according to the CEFR standard framework, the most ranked 3 as

follows: 1) 174 cites "The effects of the COVID-19 pandemic on ESL learners and TESOL practitioners in the United States". 2) 114 cites "Impact of WhatsApp interaction on improving L2 speaking skills". 3) 113 cites "Impact of COVID-19 emergency transition to on-line learning onto the international students' perceptions of the educational process at Russian university".

Table 2. Difference test statistics articles with the most citations.

No	Cites	Title	Year	Cites Per Year	Cites Per Author	Ref.
1	174	The effects of the COVID-19 pandemic on ESL learners and TESOL practitioners in the United States	2020	43.5	87	Hartshorn & McMurry (2020).
2	114	Impact of whatsapp interaction on improving L2 speaking skills	2020	28.5	38	Akkara *et al*. (2020)
3	113	Impact of COVID-19 emergency transition to on-line learning onto the international students' perceptions of educational process at Russian university	2020	28.25	113	Philipp (2020)
4	109	Language learner engagement during speaking tasks: A longitudinal study	2022	54.5	36	Aubrey *et al.* (2022)
5	83	A typology of English-medium instruction	2023	83	42	Richards & Pun (2023)
6	66	Using digital games for enhancing EFL grammar and vocabulary in higher education	2020	16.5	66	Castillo-Cuesta, L. (2020).
7	56	Strategy to Improve English Vocabulary Achievement during COVID-19 Epidemic. Does Quizizz Help?	2021	18.67	19	Huei *et al*. (2021)
8	51	The impact of students' proficiency in English on science courses in a foundation year program	2020	12.75	26	Kadwa & Alshenqeeti (2020)
9	51	Diagnostic accuracy and feasibility of patient self-testing with a SARS-CoV-2 antigen-detecting rapid test	2021	17	10	Lindner *et al.* (2021)
10	49	An exploratory study of Grammarly in the language learning context: An analysis of test-based, textbook-based and Facebook corpora.	2020	12.25	25	Bailey & Lee (2020)
11	48	Assessing language need and proficiency of English graduates of Prince Sattam Bin Abdulaziz University for designing pre-placement training and workshops	2020	12	48	Kumar (2020)
12	47	Discriminatory job advertisements for English language teachers in Colombia: An analysis of recruitment biases	2021	15.67	47	Mackenzie (2021)
13	46	The CEFR as a national language policy in Vietnam: Insights from a sociogenetic analysis	2021	15.33	23	Nguyen & Hamid, (2021)

Table 2 (Continue). Difference test statistics articles with the most citations.

No	Cites	Title	Year	Cites Per Year	Cites Per Author	Ref.
14	46	Examining the impact of Grammarly on the quality of mobile l2 writing.	2021	15.33	23	Dizon & Gayed (2021)
15	43	Audiovisual translation as a didactic resource in foreign language education. A methodological proposal	2022	21.5	22	Navarrete & Bolaños García-Escribano (2022)
16	41	English writing skills of students in upper secondary education: Results from an empirical study in Switzerland and Germany	2020	10.25	8	Keller *et al*. (2020)
17	39	The attitudes of pupils towards using flipgrid in learning English speaking skills	2021	13	20	Shin & Yunus (2021)
18	36	Methods of Improving Language Skills Using Media Software	2021	12	12	Mirzakhmedova *et al.* (2021)
19	36	Insights into emergency remote teaching in EFL	2022	18	18	Can & Silman-Karanfil (2022)
20	35	Syntactic complexity in adapted teaching materials: Differences among grade levels and implications for benchmarking	2020	35	8.75	Jin *et al*. (2020)

3.3. Visualization of Research Data Mapping

Data mapped using VOSviewer produces 3 forms of visualization, namely network visualization (**Figure 2**), overlay visualization (**Figure 3**), and density visualization (**Figure 4**). Network visualization shows that the terms generated from the abstract and keywords that are considered to correspond to the keywords used when collecting data are divided into 5 clusters with a total of 32 items. Each item has a different link, total link strength, and occurrences. Overall, based on network visualization, the total link strength is 378 while the total number of links is 169. The following is a more detailed explanation of each cluster:

i) Cluster 1 marked in red consists of 9 items, challenge, English language, experience, importance, issue, paper, practice, review, and teaching.

ii) Cluster 2 marked in green consists of 8 items, comprehension, effect, foreign language, higher education, need, participant, text, and use.

iii) Cluster 3 marked in blue consists of 7 items, CEFR b1, CEFR b2, course, proficiency, and word.

iv) Cluster 4 marked in yellow consists of 4 items, CEFR scale, CEFR standard, comparison, and type

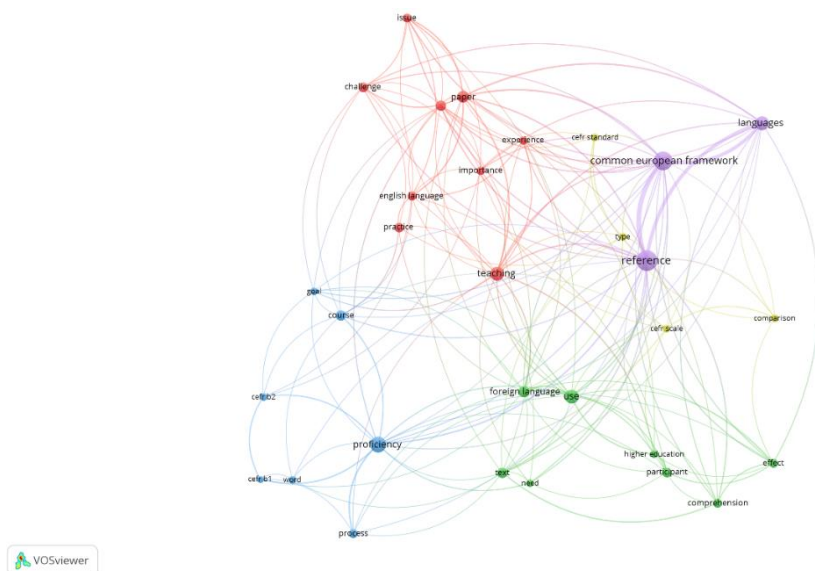v) Cluster 5 marked in purple consists of 3 items, common European framework, Language, and reference.

Figure 2. Network visualization based on CEFR and English language teaching models for communication of terms.
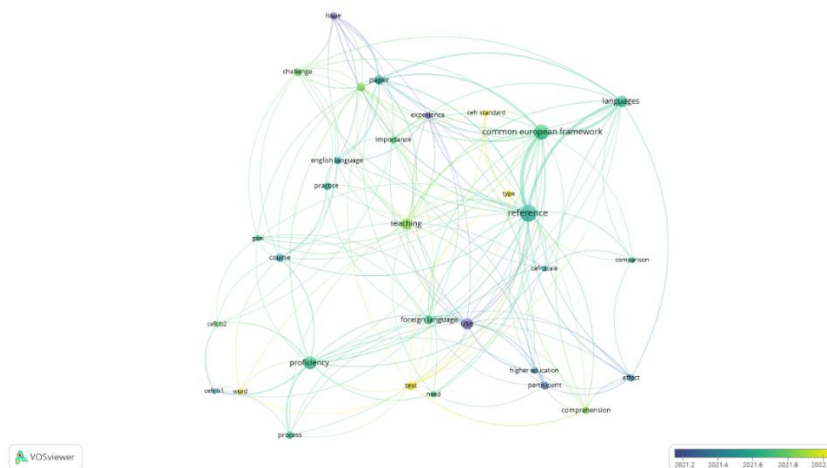

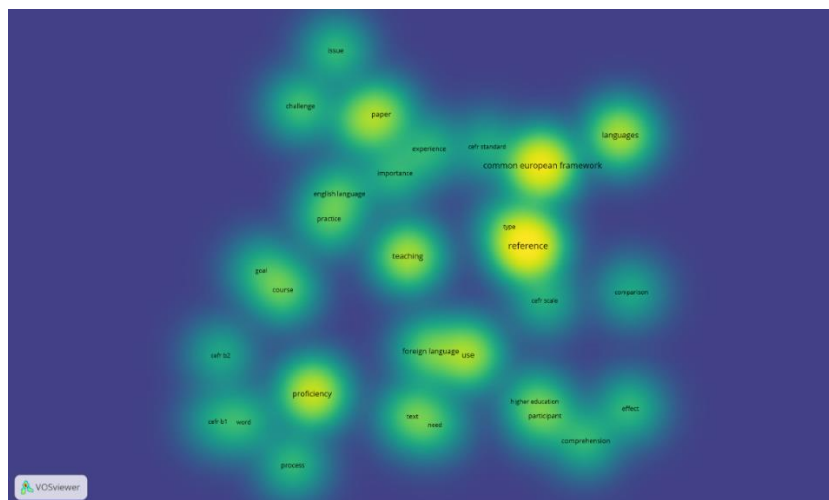**Figure 3**. Overlay visualization based on CEFR and English language teaching models for communication of terms.

Figure 4. Density visualization based on CEFR and English language teaching models for communication of terms.

4. CONCLUSION

The number of publications regarding "Statistical significance" during the last 5 years (2020-2024) was 500 documents. The development of research regarding "Statistical significance" has decreased. 2023 was the year with the highest number of publications. This number continued to decrease until 2024. In 2023, the number of publications increased. This increase did not last long because, in the following year, it decreased again. Apart from that, the terms used as keywords when used in the mapping stage using the VOSviewer application produce 32 items which are divided into 6 clusters marked with different colors. Each cluster has a different number of items and each item has a different number of occurrences, links, and total link strength (although it does not rule out the possibility that there are the same number of items). Terms that are often used both as keywords and as abstracts in research articles related to keywords such as CEFR, Communication, and English Language Teaching models.

5. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. The authors confirmed that the paper was free of plagiarism.

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