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Introduction

- Teaching is a profession that uses voice as a primary tool, which puts a heavy demand on the teacher's voice.
- When a teacher abuses or uses their voice excessively at work, it can lead to voice disorders(1).
- A voice disorder can often lead to adverse outcomes. School teachers who suffer from voice disorder will have a reduced quality of life and increased absenteeism at work(2).
- The study of voice disorders among teachers is not new or emerging; hence, a bibliometric analysis is required to understand the research trends better.
- This study provides a bibliometric analysis of Voice disorders among teachers to explore the publication trend in terms of the number of publications, Web of Science (WoS) categories, most active journals, most active countries/territories, and author keywords.

Methods and Materials

- A dataset of documents from the WoS database core collection, specifically The Science Citation Index Expanded (SCIE), Social Sciences Citation Index (SSCI) citation, and Arts and Humanities Citation Index (AHCI) from 2000 – 2022, was extracted.
- This study included only journal articles and only articles published in the English language.
- The search strategy, including keywords and the search string, is presented in Figure 1.
- After the search, 379 eligible articles were collected, and the search results were saved with "Full Record and Cited References"; the data was saved on 19 May 2023.
- Author keywords co-occurrence analysis and citation analysis with countries were conducted and visualised using VOSviewer (version 1.6.19).
- Descriptive analysis was performed using Microsoft Excel.

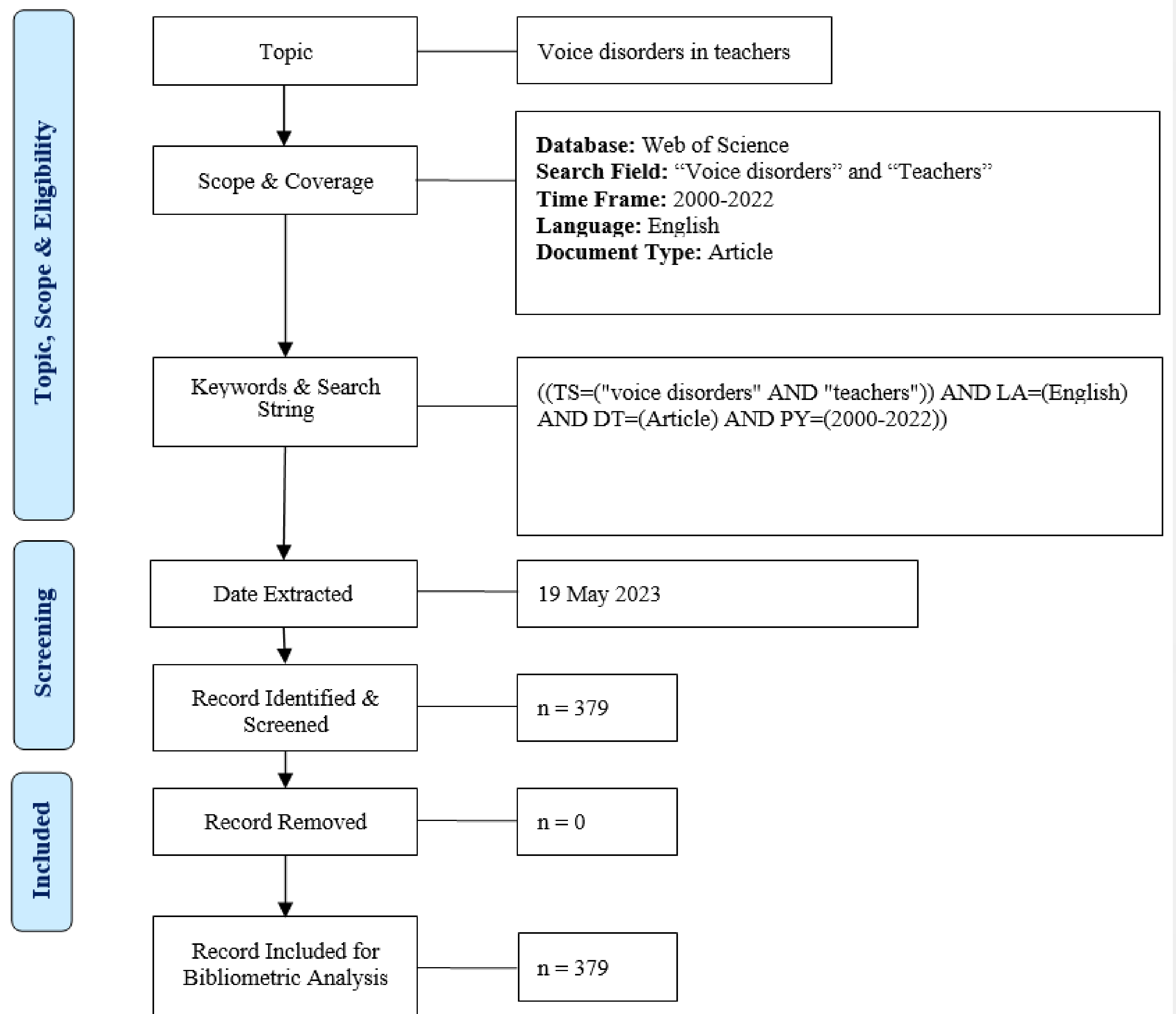


Figure 1. Flow diagram of search strategy

Results and Discussion

- From 2000 to 2006, fewer than ten articles per year were published on voice disorders in teachers. However, from 2007 to 2011, the number of papers increased more than two-fold. This trend of increase in articles from 2007-2011 demonstrates that research on voice disorders in teachers has attracted the attention of more scholars worldwide.
- In the subsequent years, the number of articles steadily increased and started to show a decline in 2018 before showing an upward trend during the COVID-19 pandemic (Figure 2); this might be attributed to a change in teaching mode to online instead of face-to-face in the education sector and working from home(3).

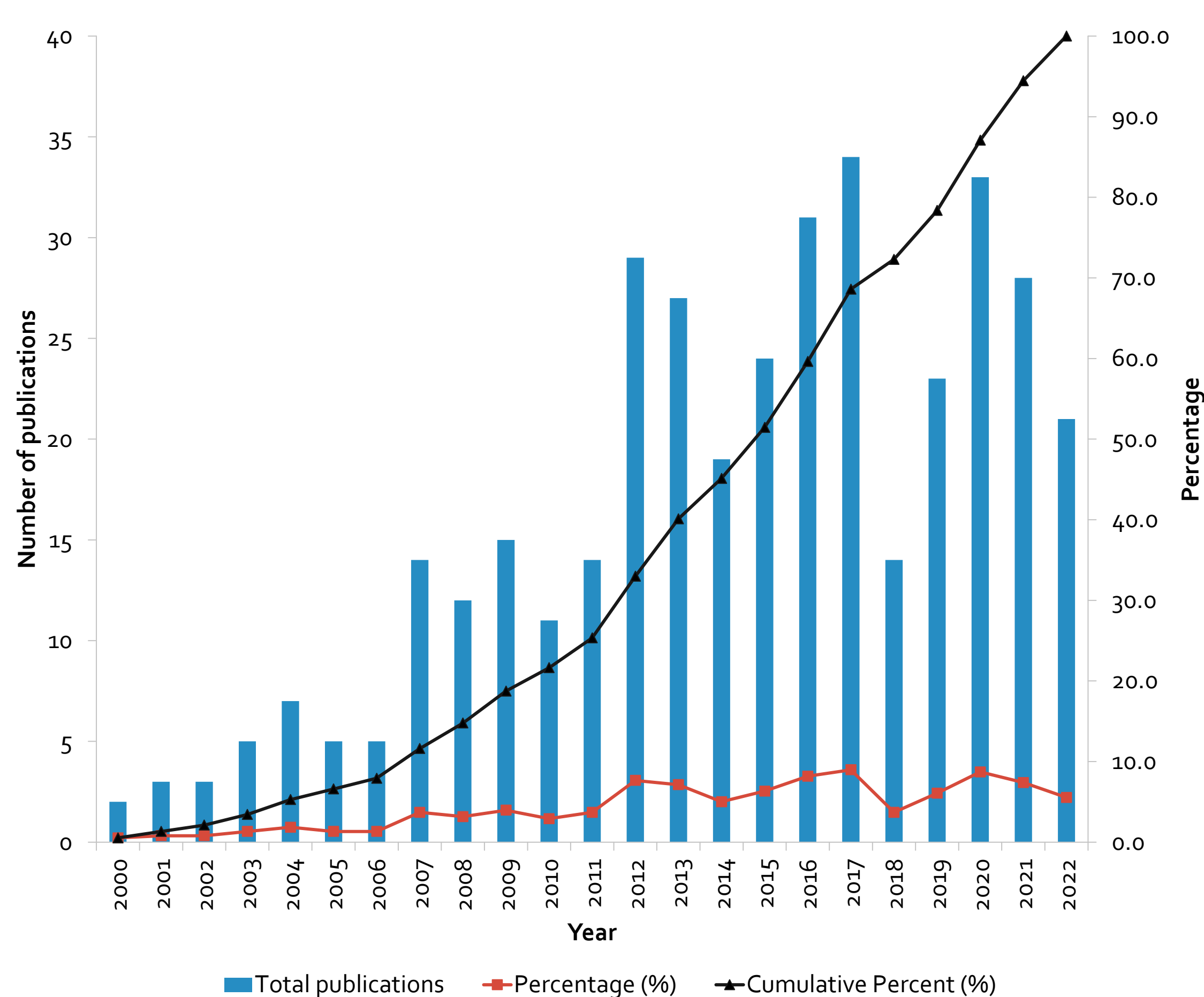


Figure 2. Publications over time

- The most active country was the US, followed by Brazil and Europe. US and Europe are the major research countries as they are developed nations. Brazil, which ranked second highest in articles published, can be due to the culture of Brazil, where music and dance are part of their culture.

- The predominant categories for research on Voice disorders were: i)Audiology, Speech-Language Pathology (72.82%), ii)Otorhinolaryngology (72.82%), iii)Rehabilitation (15.04%), iv)Linguistics(10.03%), v)Public Environmental Occupational Health(6.86%).
- This can be due to multidisciplinary clinics that evaluate voice and swallowing disorders with both an otolaryngologist and speech-language pathologists present have been widely regarded as the gold standard of practice.
- More than half of the total articles were published in the Journal of Voice because it is widely regarded as the premier journal for voice.
- Keyword co-occurrence analysis revealed that there are five clusters in voice disorders among teachers: i)Voice measures, ii)Occupational Health, iii)Professional voice users, iv)Epidemiology, v)Dysphonia

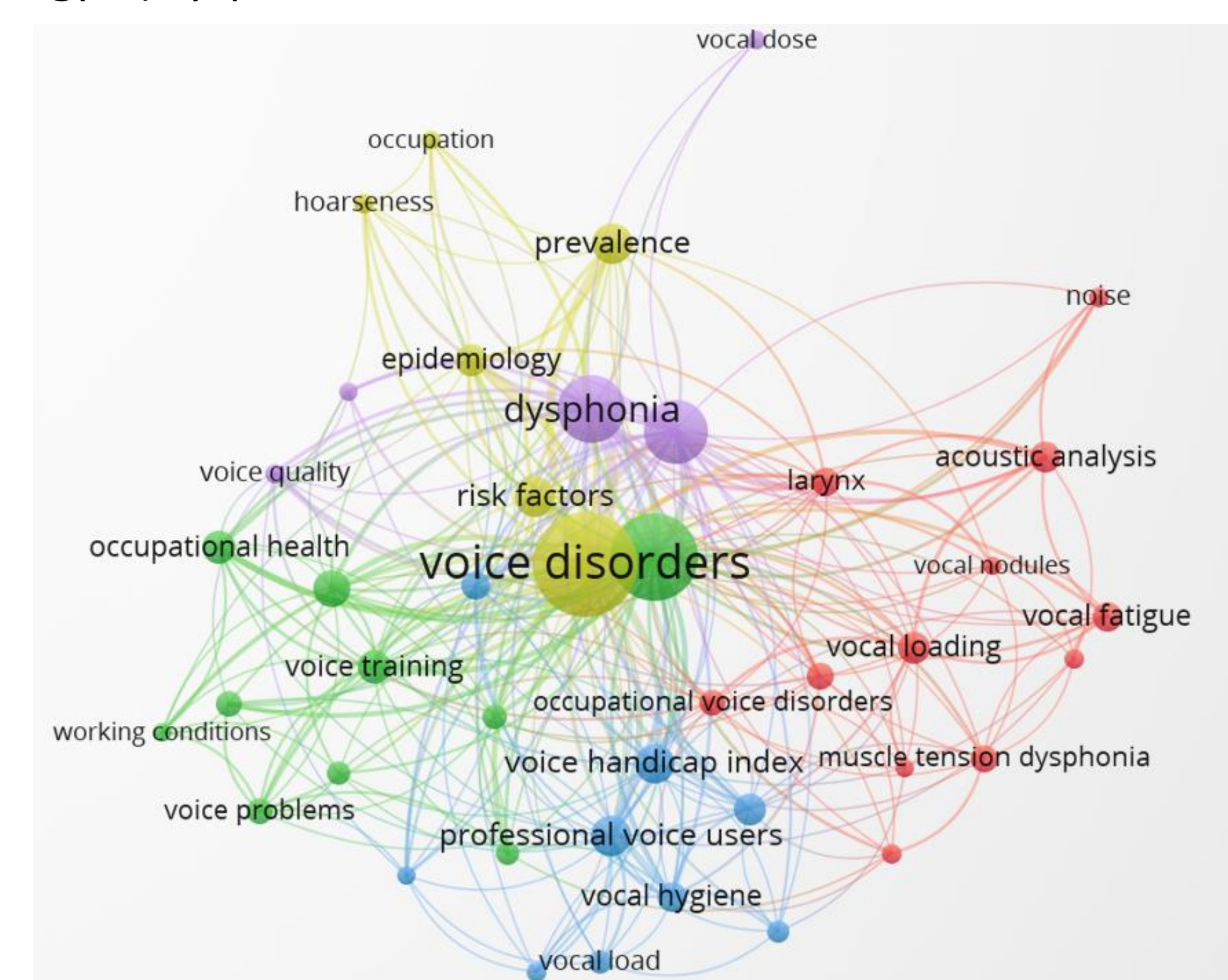


Figure 3. Co-occurrence clustering view of author keywords

Conclusions

Voice disorders in teachers are seen as complex and multidisciplinary, where mostly otolaryngologists and speech therapists are involved. Occupational health has a role, but the numbers are currently small. Voice disorders research is still few in Malaysia, and more focus should be given to voice disorders.

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