

3. Method

A total of 30 Scopus-Indexed Electrical Engineering Research Articles (RAs) were analyzed in this study. The use of these 30 corpora is also taken by Nwogu (1997) and Alamri (2020) in their respective studies, demonstrating a consistent and validated methodology. The corpus was curated based on database search by applying specific Scopus filters. Those filters include article document type and journal source type. Besides, the articles must use English, and the number of citations used sorts them. The 50 research articles (RAs) with the most citations are selected as the initial database, which is then re-sorted until only the top 30 highly cited Electrical Engineering Research Articles (RAs) remain. However, in this corpus, the publication year limit was not employed as a selection criterion for research articles (RAs), as this study focuses on publications with a high number of citations.

This study uses a combination of frameworks: Abstract (Hyland, 2000), Introduction (Swales, 2004), Method (Cotos et al., 2017), and Result & Discussion (Moreno & Swales, 2018) to examine the rhetorical structures of the Electrical Engineering Research Article (EERAs). A similar combinatory approach has been performed by Wannaruk and Amnuai (2016), wherein the author utilized a distinct framework for each IMRD section. This study employed that framework due to the comprehensive scope, encompassing cross-disciplinary studies, including science and social humanities. Furthermore, this study did not adopt a separate framework for the conclusion analysis. Moreno and Swales' (2018) framework is sufficiently comprehensive to encompass the entire section, from results and discussion to conclusion.

A move or genre analysis was used to identify and analyze the distinct communicative purposes of “move” within the articles. In this study, the articles were thoroughly read after determining the corpus, and their contents were systematically transferred to a Google Spreadsheet. The abstract and conclusion are broken down by sentence, while the introduction, methods, results, and discussion sections are broken down by paragraph. Each section of text was then analyzed to assign appropriate moves and steps. Once identified, a manual calculation was performed to assess whether the moves and steps from the framework occurred in each article section. The results were recorded in a table where 'N' indicated whether a move appeared at least once, and 'F' recorded the total frequency of each move or step throughout the article.

After completing the analysis, the occurrence of moves and steps was explained through percentages. A move must appear in at least 60% of articles to be classified as a conventional. Although a similar study by Nwogu (1997) that examined 30 whole sections in one discipline used 50% as the minimum requirement, and Wannaruk and Amnuai (2016) that examined 60 whole papers in one discipline used 75% as the minimum requirement, 60% was selected for this study as in Kanoksilapatham (2005) because a high cut makes it easier to show the level of difference between each move category.