

3. Method

A total of thirty biochemistry research articles (RAs) from Scopus-indexed were analyzed for this present study. The total number of research articles is based on approaches applied in similar genre analysis studies. One study related to genre analysis involving thirty research articles has been conducted by Nwogu (1997) in the medical field. Moreover, in the field of social and humanities, research by Alamri (2020) also analyzed thirty research articles on applied linguistics.

Database selection began by employing a specific filter in Scopus, including the article document type, journal source limited to biochemistry journals, the research articles must be written in English, and sorting based on the highest citations in Scopus. Then, fifty biochemistry research articles with the highest citation order in Scopus were selected without limitation on the year of publication. A more stringent selection process was used on these fifty biochemistry research articles, with each article required to have an IMRD (Introduction, Methods, Results, and Discussion) format. As a result, only thirty articles that met these criteria were selected for further analysis, ensuring that each article had an outline that complied with conventional standards in writing research articles.

This present study adopted combination frameworks when analyzing each section (IMRD) of the research articles. This study adopted Hyland's (2000) framework for the abstract section since it has been widely used in various fields of study. For instance, Darabad (2016) employed Hyland (2000) to examine abstracts from across disciplines, such as applied chemistry, applied mathematics, and applied linguistics. Moreover, Amnuai (2019) used this approach to examine the abstracts of sixty research articles in the field of accounting. Furthermore, Swales' (2004) Create A Research Space (CARS) framework, widely used in various fields, was applied to the introduction section. In hard science, Stoller and Robinson (2013) adopted this framework in the field of chemistry, and Kanoksilapatham (2015) utilized it in engineering. In addition, this approach has also been used in cross-disciplinary (e.g., Alamri, 2020; Lutfhianda et al., 2021; Nabilla et al., 2021). The methods section was analyzed using the framework developed by Cotos et al. (2017), while the Results and Discussion section was analyzed using the framework from Moreno and Swales (2018). Moreno & Swales' (2018) framework was chosen because it is considered effectively used in the fields of science and technology and social sciences. The results showed that this framework can be applied well to research articles in both fields. The comprehensiveness and quantity of moves and steps that made the analytical process more convenient led to the selection of the frameworks.

In the process of analyzing the research articles, several phases of this analysis adopted the steps proposed by Nasirizadeh et al., (2022) as follows: The first step was to read and identify the research articles. After that, the researchers identified the communication moves in each section of the research articles using the selected frameworks. In the abstract section, the frequency was calculated for each sentence while in other sections, researchers counted the number of moves or

steps by paragraph. However, if there was more than one move or step in a paragraph, its frequency was still counted as one. Moreover, all sections were labeled with their move patterns (see. Table 1). Finally, the status of the move was assessed using Kanoksilapatham's (2005) criteria, where a move above 60% was considered a conventional move, and a move that appeared under 60% was considered optional.

Table 1. Move-Step Labeling.

No	BRAs Information	Section	Sentence/Paragraph		Move	Step
1.	Title:	Abstract				
	Author:	Introduction				
	Number of citations:	Method				
		Results and Discussion				
2.	...					
3.	...					
etc						