CHAPTER III
RESEARCH METHOD

The research strategy, topic, data collection techniques, and analytic procedure are all explained in this chapter. It provides an overview of the study, participant information, and tools. In order to strengthen the validity and reliability of the research findings, the chapter also covered data gathering procedures, data analysis methods, and the application of triangulation.

A. The Research Design

This study employed a discourse analysis approach, which is suitable for examining how language functions to construct meaning, organize information, and engage readers in educational texts. Discourse analysis allows researchers to explore both the structural and functional aspects of language in context, going beyond mere description to understand the social and cognitive roles of linguistic features.[57] This approach is particularly appropriate for studying metadiscourse, as it provides insight into how writers signal stance, guide interpretation, and manage interaction with readers[58].

Textual data were systematically collected from educational articles and analyzed to identify metadiscourse markers based on Hyland's theoretical framework, which classifies metadiscourse into interactive and interactional categories. Interactive markers help organize the text and guide the reader through its logical structure, while interactional markers express the writer's attitude and engage readers in the communicative process.[59] The data were coded, categorized, and interpreted to uncover patterns and functions of metadiscourse, providing a detailed understanding of how language is strategically used in educational contexts.

By adopting a discourse analysis method, this study aims to offer a contextually grounded, interpretive insight into the use of metadiscourse in educational texts. This method not only allows for a description of linguistic featur-

[57] Gee, J. P., *An Introduction to Discourse Analysis: Theory and Method*, 4th ed. (London: Routledge, 2014).
[58] Hyland, *Metadiscourse.* 2005
[59] Ibid

es but also situates them within their social and pedagogical context, thereby linking language use to teaching and learning practices[60].

B. Data and Source of Data

In order to collect data that align with the aims of this study, two categories of articles were considered: national journal articles and international journal articles. Each category follows its own set of inclusion criteria to ensure the relevance, credibility, and academic rigor of the selected studies.

1. Inclusion Criteria for National Journal Articles

To ensure that the national journal articles selected for this study are relevant, credible, and aligned with the research objectives, specific inclusion criteria were established. The following criteria were used to determine which articles were eligible for analysis:

1. The article must be published in a Sinta-indexed national journal.
2. The study must employ a Systematic Literature Review (SLR) method.
3. The research must include articles with an educational focus, such as teaching methods, instructional strategies, or learning problems and their causes. This is to ensure the review focuses on studies relevant to education and shows how language (metadiscourse) is used in SLR focused on education contexts.
4. The article must have been published within the last 5 years.
5. The article must be written in English.

2. Inclusion Criteria for International Journal Articles

To guarantee that the international journal articles incorporated into this study are academically reliable and relevant to the research focus, a set of selection criteria was formulated. International articles were included based on the following considerations:

1. The article must appear in a journal indexed by Scopus.

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[60] Gee, J. P., *An Introduction to Discourse Analysis: Theory and Method*, 4th ed. (London: Routledge, 2014), p. 15; Fairclough, N., *Critical Discourse Analysis: The Critical Study of Language* (London: Longman, 1995), pp. 1–2.

2. The study is required to utilize a Systematic Literature Review (SLR) approach.
3. The research must include articles with an educational focus, such as teaching methods, instructional strategies, or learning problems and their causes. This is to ensure the review focuses on studies relevant to education and shows how language (metadiscourse) is used in SLR focused on education contexts.
4. Only articles published within the past 5 years are considered.
5. The article must be written in the English language.

The research corpus consists of English-language scientific articles sourced from SINTA (for national publications) and Scopus (for international publications), all of which employ the Systematic Literature Review (SLR) method. These two databases were selected because of their rigorous selection criteria and robust peer-review systems, which ensure a high standard of scholarly quality in the articles included.

Scopus, launched by Elsevier in 2004, is one of the world's largest abstract and citation databases, providing high-quality bibliometric data for research tracking and scientific analysis.[61] Compared to Web of Science, Scopus covers a wider selection of journals and is therefore widely regarded as a highly reliable bibliometric resource.[62] To qualify for indexing in Scopus, journals must adhere to strict publication ethics, editorial standards, and peer-review procedures. The Content Selection and Advisory Board (CSAB), an independent panel of experts in various disciplines, thoroughly examines and oversees journals before inclusion. In the fields of linguistics and literature, Scopus lists 296 open-access journals spanning Q1 to Q4 rankings. For research articles published in these reputable journals, having a concise and informative abstract is essential, as it summarizes the study's background, objectives, methodology, key findings, and significance,

[61] 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.
[62] Mongeon, P., & Paul-Hus, A. (2016). *The journal coverage of Web of Science and Scopus: A comparative analysis.* Scientometrics, 106(1), 213–228.

acting as an initial filter for readers considering the full paper. In this study, only articles indexed in Scopus are included to ensure quality and reliability, making Scopus an ideal source for international articles.

On the national side, SINTA (Science and Technology Index) serves as Indonesia's national research index and is managed by the Ministry of Education, Culture, Research, and Technology. It provides citation metrics, evaluates the performance of researchers, institutions, and journals, and serves as a central hub for accessing scientific and technological outputs in Indonesia. SINTA also offers research trend analysis, benchmarks, and a directory of experts. Journals indexed in SINTA undergo a thorough review process, ensuring that the selected national articles are reputable and meet rigorous quality standards. For this study, only articles from SINTA-ranked journals 1–3 is included, as they are considered high-quality and reliable sources.

In summary, the combination of Scopus and SINTA as data sources ensures that the research corpus consists of high-quality, peer-reviewed articles from both international and national contexts. Scopus was chosen for its global coverage, strict indexing and ethical standards, and reliability as a bibliometric resource, while SINTA was selected for its rigorous national review process, credibility, and central role in indexing Indonesia's scholarly publications.

A total of three articles were selected from each source, national (SINTA) and international (Scopus), based on pre-established inclusion criteria: published within the last 5 years, written in English, focused on education, and relevant to the research topic. Articles were purposefully selected from the eligible pool to ensure they were information-rich and representative of each source. The resulting small corpus is suitable for discourse analysis, as carefully selected and manageable datasets allow for a detailed examination of how language functions in context. According to Baker, corpus-based discourse analysis can involve the in-depth study of smaller sets of texts to uncover meaningful patterns of language use and discourse structures within their contextual settings. This approach enables a focused analysis of linguistic features, such as metadiscourse markers, and how

they are employed to organize texts, convey meaning, and engage readers[63]. Selecting an equal number of articles from national and international journals further ensures balance and comparability across contexts, supporting the reliability and validity of the analysis.

From these articles, the analysis focuses on metadiscourse markers which is specific words, phrases, or sentences that signal the author's rhetorical stance, organizational structure, and engagement with readers. Six relevant articles were selected from the search results, detailed as in table 3.1.

Table 3.3

Research Data

Source	No.	APA Citation	Research Focus
National (SINTA)	1	Daud, A. (2024). *English instruction challenges and opportunities in Indonesian primary schools: A systematic review.* Journal of English Language Teaching Innovations and Materials (JELTIM), 6(1). https://doi.org/10.26418/jeltim.v6i1.72178	Focuses on challenges and opportunities in English instruction at the primary school level in Indonesia, based on a systematic review of related studies.
	2	Ibna Seraj, P. M., & Rahmatullah, A. (2022). *Systematic literature review on the use of applications of smartphones for teaching English in EFL contexts.* Journal of English Education and Teaching, 6(3), 347–366. https://doi.org/10.33369/jeet.6.3.347-366	Examines the use of smartphone applications for teaching English in EFL contexts, covering various educational levels (secondary and higher education).
	3	Dwiputra, D. F., Azzahra, W., & Heryanto, F. N. (2023). *A systematic literature review on enhancing the success of independent curriculum through brain-based learning innovation implementation.* Indonesian Journal on Learning and Advanced Education (IJOLAE), 5(3), 262–276. https://doi.org/10.23917/ijolae.v5i3.22318	Investigates brain-based learning innovations to support the implementation of the Independent Curriculum, mainly within school-level education in Indonesia.
International (Scopus)	1	Mazandarani, O. (2024). *Self-regulated learning in ESL/EFL contexts: A methodological exploration.* Humanities and Social Sciences Communications, 11(1). https://doi.org/10.1057/s41599-024-03617-x	Explores research methodologies on self-regulated learning in ESL/EFL contexts, involving learners across secondary and higher education levels.
	2	Kusmaryono, I., Jupriyanto, J., & Kusumaningsih, W. (2021). *A systematic literature review on the effectiveness of distance learning: Problems, opportunities, challenges, and predictions.*	Analyzes the effectiveness of distance learning across multiple educational levels, including secondary

[63] Paul Baker, *Using Corpora in Discourse Analysis* (London: Continuum, 2006),

		International Journal of Education, 14(1), 62–69. https://doi.org/10.17509/ije.v14i1.29191	schools and higher education.
	3	Shahrol, S. J., Sulaiman, S., Samingan, M. R., & Mohamed, H. (2020). *A systematic literature review on teaching and learning English using mobile technology.* International Journal of Information and Education Technology, 10(9), 709–714. https://doi.org/10.18178/ijiet.2020.10.9.1447	Reviews the use of mobile technology in English teaching and learning across various educational levels, particularly secondary and tertiary education.

The articles were selected based on predefined inclusion criteria that emphasized relevance to the research objectives, theoretical alignment, and methodological clarity. Rather than prioritizing the quantity of sources, this study focused on selecting articles that provided rich, explicit, and analyzable data suitable for addressing the research questions. Only studies that clearly discussed the targeted topic within an educational context and demonstrated sufficient depth of analysis were included. This selective approach allowed for a more focused and coherent examination of the phenomenon under investigation. Consequently, the articles included in this study represent the most appropriate sources for supporting systematic analysis and interpretation within the defined scope of the research.

C. Instrument of the Research

In this study, the researcher acts as the primary instrument responsible for collecting and analyzing the data. This means that the researcher's own judgment, interpretation, and analytical skills play a central role in shaping the findings.

D. Data Collection Technique

The data collection for this study was conducted through the selection and analysis of credible scientific articles that met specific inclusion criteria. First, only articles published in journals indexed by Scopus were considered to ensure the credibility and recognition of the sources. Second, the study was limited to articles employing the Systematic Literature Review (SLR) method to maintain consistency with the research approach. Third, the articles were required to have an educational focus, such as teaching methods, instructional strategies, or learning problems and their causes, to ensure relevance to educational contexts and the analysis of metadiscourse within these studies. Fourth, only articles published within the past

five years were included to reflect the most current research. Finally, the articles had to be written in English to maintain accessibility and consistency in data analysis. These criteria ensured that the selected articles were reliable, relevant, and suitable for examining the use of metadiscourse in SLR studies within education.

In the data collection process, metadiscourse markers were identified by systematically extracting words, phrases, and sentences from the selected articles. Hyland's metadiscourse framework was used as a guide, as it provides a clear and widely accepted distinction between interactive and interactional markers. This approach ensures that data collection is consistent, transparent, and aligned with the study's analytical objectives, allowing for a structured examination of how writers organize discourse and engage readers.

All extracted metadiscourse elements were then compiled into a dataset, where they were grouped according to their respective types of metadiscourse markers. This organized data corpus provided a foundation for subsequent discourse analysis, allowing the researcher to systematically explore the use and distribution of metadiscourse within the selected articles.

E. Data Analysis Technique

This study employed a discourse analysis approach to analyze the use of metadiscourse markers in selected academic articles, focusing on how language functions in context rather than purely on quantitative description. Texts were systematically collected and interpreted through detailed coding and contextual analysis of linguistic features, aligning with the principles of discourse analysis, which emphasize interpreting language use within social and communicative contexts. According to Baker, corpus-based techniques can be applied within discourse analysis to uncover meaningful patterns of language use and discourse structures, showing that manageable datasets can effectively support qualitative interpretation of linguistic features in texts[64]. In this context, the analysis focused on identifying, categorizing, and interpreting metadiscourse markers using

[64] Paul Baker. *Using Corpora in Discourse Analysis.* 2006

Hyland's classification to understand how these markers function within published scholarly texts.

To guide the analysis, the researchers followed Creswell's[65] five-step data analysis framework:

1. **Organizing and Preparing the Data for Analysis**

   The selected articles were compiled and systematically organized. Each article was categorized based on its source (SINTA or Scopus), methodological approach (SLR), and the types of metadiscourse markers present. Classification was guided by Hyland's framework, which divides markers into interactive and interactional types.

2. **Reading and Familiarizing with the Data**

   The researchers engaged in close reading of each article to gain an overall understanding of the texts and identify emerging patterns. This initial reading helped to frame how metadiscourse elements were used by the authors and informed later coding decisions.

3. **Coding the Data**

   Coding was conducted by identifying and highlighting every instance of metadiscourse within the articles. Instead nmof labelling items with alphanumeric codes, each metadiscourse category was coded solely through colour markings. Every time a metadiscourse item appeared in the text, it was underlined or highlighted using a specific color that represented its category. The color-coding scheme used in this study is as follows:

   a. **Neon green**: Code Glosses
   b. **Pink**: Endophoric Markers
   c. **Yellow**: Transitions
   d. **Red**: Frame Markers
   e. **Blue**: Evidentials
   f. **Forest green**: Attitude Markers
   g. **Brown**: Self Mentions
   h. **Orange**: Hedges
   i. **Purple**: Boosters
   j. **Cream**: Engagement Markers

[65] J. W. Creswell and J. D. Creswell, *Research Design*, 5th ed. (SAGE Publications, 2018).

This color-based system allowed for clear visual distinction of metadiscourse types across the articles without inserting additional alphanumeric codes into the text.

4. **Generating Descriptions and Themes**

   Based on the coded data, researchers generated detailed descriptions and categorized findings into broader themes. These themes were based on both the frequency and rhetorical function of the metadiscourse markers, helping to illuminate the communicative strategies employed in the texts.

5. **Presenting the Findings**

   The final step involved representing the findings in a combination of **descriptive narrative** and **tables**. The narrative provided a thematic interpretation of the results, while tables were used to show the distribution and types of metadiscourse markers across the selected corpus. As Creswell (2018)[66] notes, this dual representation enhances clarity and strengthens the depth of qualitative reporting. The data obtained will be displayed as in the following example:

Table 3. 4

Example of Data Display

Category of metadiscourse	**Article 1**	**Article 2**	**Article 3**	**Article 4**	**Article 5**	**Article 6**
Transitions						
Frame markers						
…						

J. Triangulation

Triangulation is an important process in discourse analysis to enhance the credibility and validity of findings by cross-checking interpretations of language use and textual patterns across multiple sources or contexts.[67] According to Creswell, triangulation can involve using different data sources, investigators, or theoretical perspectives to verify interpretations and provide a more comprehensive understanding of the discourse under study.[68] In the context of discourse analysis,

[66] J. W. Creswell and J. D. Creswell, *Research Design*. 2018.
[67] ibid
[68] Ibid

triangulation ensures that conclusions about language use, metadiscourse markers, and communicative strategies are robust and well-supported by evidence from the texts.[69]

According to Moleong, the goal of triangulation is to assess the reliability of the data using methods that use sources other than the data. One way to describe it would be that it required an additional external source to verify or compare the data. As thus, the current study used data triangulation, enlisting the assistance of a second researcher to verify the validity.[70] Therefore, the current study made an effort to incorporate more sources. To validate the data in this instance, the researcher selected a linguistics lecturer to serve as a validator.

[69] Ibid
[70] Lexy J. Moleong, *Metode Penelitian Kualitatif*, Edisi Revisi (Bandung: PT. Remaja Rosdakarya, 2013)