

## GENRE STUDY IN RESULT AND DISCUSSION SECTION OF SCIENTIFIC PAPERS

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### Abstract

*This study examines the application of genre patterns in the "Results and Discussion" section of scientific articles written by lecturers at Universitas Tidar using the Systemic Functional Linguistics (SFL) framework. Through qualitative analysis, this study identifies five main genres—descriptive, expository, prescriptive, analytical, and argumentative—that are used strategically to improve clarity, coherence, and effectiveness of communication in scientific writing. Each genre is analyzed based on its linguistic features and its contribution to fulfilling the ideational, interpersonal, and textual functions in the IMRD structure. The results of the study indicate the important role of knowledge about genres in improving the quality of academic writing, especially in conveying complex ideas, establishing credibility, and ensuring a logical flow of information. This study emphasizes the importance of implementing a genre-based approach in teaching academic writing to help students and researchers produce well-structured and impactful scientific papers. By bridging linguistic theory and practical writing strategies, this study contributes to the development of genre literacy and academic communication skills.*

**Keywords:** academic writing; genre analysis; imrd structure; scientific articles; systemic functional linguistics

## INTRODUCTION

Systemic Functional Linguistics (SFL) is a language theory that views language mainly as a social tool for carrying out certain purposes. According to SFL, language is more than just a set of rules; when we communicate, we are not only obeying grammar rules, but also deciding how to express ourselves based on our social purposes and contexts. SFL sees language as a social semiotic resource that people utilize to achieve their goals by conveying meanings in context (Halliday, 1985). Developed by Halliday, the core concept of SFL is that language has three metafunctions: ideational, interpersonal, and textual. According to Halliday and Matthiesen (2014:23), these metafunctions enable an extensive exploration of how language functions in various contexts, whether spoken or written, formal or informal. Thus, SFL shows a solid framework for studying how language works in various contexts, particularly in professional and educational contexts (Fauziati, 2016:45).

Genre in SFL is described as a culturally acknowledged manner of utilizing language to achieve specific goals in a social context. Martin and Rose (2008) state that genres are social processes that express themselves through predictable and purpose-

related language use patterns. Genres show how people organize their communication in order to fulfill the needs of their social context. The genre-based approach in SFL has shown particularly beneficial in education, as students learn to recognize and create writings that follow the rules of specific genres. This method allows students to develop not only their language abilities but also an awareness of how language is used to communicate in various social and cultural contexts (Feez, 2002:58). Moreover, genres are shaped by power dynamics, relationships, and techniques of communication among participants. For example, the field, tenor, and mode of a context all influence the language chosen (Halliday, 1978:10). The term "field" means the subject matter or issue being discussed, "tenor" specifies the relationships between the participants (e.g., teacher and student, or colleagues), and "mode" identifies the channel of communication (e.g., written or spoken).

In the context of scientific papers, the practical use of genre analysis becomes particularly beneficial. Scientific writing is a highly organized genre that follows standard rules for organizing information, data presentation, and conclusion formulation. Scientific papers usually follow an Introduction-Methodology-Results-Discussions (IMRD) structure. According to Yasuda (2015:95), this structure enables the reader to quickly get through the paper while comprehending the justification for the research, how it was carried out, what was found, and the impact of the results. This predictability in structure is essential in the scientific context, where accuracy and clarity are prioritized above everything.

Scientific papers demonstrate how ideational and textual metafunctions work together to deliver complicated information. The ideational metafunction deals with the research content—the activities, processes, and things under consideration. For example, scientific papers frequently use highly technical vocabulary and exact grammatical structures to precisely describe experimental processes or outcomes. At the same time, the textual metafunction guarantees that the material is rationally arranged, with cohesive devices connecting concepts and sections of the text (Imtihani, 2010: 36). Mustafa et al. (2023:3) argue that students who learn these genre conventions can more effectively contribute to the scientific community through their writing.

This study, based on the principles of Systemic Functional Linguistics (SFL) and genre analysis, seeks to investigate how scientific writing standards contribute to the communicative success of research publications. This study examines language choices that meet various metafunctions in order to emphasize the strategic deployment of vocabulary, grammatical structures, and cohesive devices in scientific writings. For example, the ideational metafunction helps writers to clearly depict research procedures, participants, and situations, allowing for more exact conveyance of complicated ideas. Meanwhile, the interpersonal metafunction enables authors to place themselves in relation to their audience, building credibility and engaging readers through careful

control of assertions, assurance, and stance. This interaction of metafunctions is critical in developing a scientifically valid and reader-friendly book.

This study also emphasizes how crucial genre knowledge is as a starting point for students and aspiring researchers who want to conduct scientific work. By understanding the IMRD structure and the functions of each part, authors may produce content that meets academic standards and promotes the adoption and distribution of their work. Students acquire important abilities for professional communication within their professions as they improve their ability to use language in ways that conform to these conventions. Teachers can assist students in developing a keen awareness of how language functions in academic and professional contexts in addition to helping them write better by encouraging a grasp of genre-specific language choices. Thus, this work adds to the expanding corpus of studies that demonstrates the advantages of genre-based and SFL-informed language teaching methods for fostering academic writing's linguistic proficiency and genre literacy.

## **METHODOLOGY**

This research uses a qualitative approach with a case study design to analyze the use of genres in scientific papers, especially in the Results and Discussion sections. The sample consists of 3 scientific papers selected purposively, which meet the criteria of IMRD structure and current relevance. Data will be collected through document analysis with steps of identifying structures, marking the Results and Discussion sections, and coding data to find language patterns, vocabulary, and cohesion devices. The analysis was carried out using a discourse analysis approach based on Systemic Functional Linguistics (SFL), covering ideational, interpersonal, and textual aspects. To ensure validity and reliability, this study uses source triangulation by comparing findings from the articles analyzed with existing literature. With this method, it is hoped that the study can provide in-depth insights into how genres affect the clarity and effectiveness of communication in scientific writing.

## **FINDINGS**

This study aims to analyze the application of genre patterns in the Results and Discussion sections in scientific articles by Agung Budi Kurniawan. Based on the analysis, there are some findings were found which are explained as follows:

**Title : Human rights in education implication schema based on the study of the UN Economic and Social Council's 2030 agenda**

- a. Descriptive Genre

1) Type : Descriptive is used to convey research findings in a systematic and factual manner.

2) Use : Presenting the main results of the research, such as findings summarized in a table (Table 1) and a description of human rights values in education.

3) Example : "There are eight declarations of learning opportunities which are presented in Declaration 30 till 37 that contains nine human rights in education."

4) Purpose : To identify key points from the research results.

b. Expository Genre

1) Type : Expository is used to explain and provide details about the research results.

2) Use : Explaining how each value (e.g., ensuring equality in education opportunity) is applied in the context of the field or global education.

3) Example : Explanation of the urgency of accelerating sustainable education and its impact on the post-pandemic era.

4) Purpose : To provide in-depth analysis and relevance of research results to the global context.

c. Prescriptive Genre

1) Type : Prescriptive is used to provide advice or recommendations based on findings.

2) Use : Develop a scheme for implementing human rights values in education as described in Table 2.

3) Example : "Determining the amount of funding for each allocation is not only based on the equal number but also its priority and benefits."

4) Purpose : To offer practical guidance that can be applied by policy makers and educational institutions.

d. Analytical Genre

1) Type : Analytical is used to evaluate data and relate it to larger concepts or theories.

2) Use : Relate findings to previous literature, such as the concept of gender equality in education or the relevance of the curriculum to social needs.

- 3) Example : Discussion on the importance of safe and modern infrastructure in education as respect for human rights.
- 4) Purpose : To evaluate the findings and validate the results based on the existing theoretical framework.

e. Argumentative Genre

- 1) Type : Argumentative is used to support a particular position or view taken by the author.
- 2) Use : Highlights the importance of human rights in education as a foundation for sustainable societal development.
- 3) Example : Statements about how cultural values in education support the development of students' global competencies.
- 4) Purpose : To convince the reader of the importance of adopting human rights values in education policy.

**Title : Non-EFL Students' Spontaneous Technique to Reduce Anxiety in ELT Speaking Practice Class**

This study shows the use of several types of genres designed to communicate research findings systematically, in-depth, and applicable. These genres include descriptive, expository, prescriptive, analytical, and narrative, each of which is used for a specific purpose in the discussion.

a. Descriptive Genre

- 1) Type : Descriptive is used to convey findings factually and systematically.
- 2) Use : Presents the main results of the study such as the instruments used by students to speak, language management techniques, and non-linguistic aspects that help reduce anxiety.
- 3) Example : *"The use of various instruments represents implications for the students performances."*
- 4) Purpose : To provide a direct overview of the research findings

b. Expository Genre

- 1) Type : Expository is used to explain findings with a more in-depth analysis.

- 2) Use : Discusses how students manage their language, including choices of diction, intonation, and repetition to reduce anxiety when speaking.
- 3) Example : *"Using a similar term is one of the recommended techniques to overcome getting anxiety because of forgetting specific vocabulary."*
- 4) Purpose : To explain how students' strategies can be applied in the context of learning.

c. Perspective Genre

- 1) Type : Prescriptive is used to provide recommendations based on research findings.
- 2) Use : Proposes strategies that teachers can use to help students reduce speaking anxiety, such as preparing a conducive classroom environment and visual aids.
- 3) Example : *"The preparatory program helps language learners to decrease their level of foreign language speaking anxiety."*
- 4) Purpose : Provides practical guidance to teachers and education policymakers.

d. Analytical Genre

- 1) Type : Analytical is used to evaluate findings based on theory and previous literature.
- 2) Use : Connects research findings to linguistic concepts, such as lexical and syntactic competence, and their relationship to speaking anxiety.
- 3) Example : *"Lexical and syntactic knowledge is reported to contribute to students' language anxiety."*
- 4) Purpose : To validate findings and make them relevant in a broader academic context.

e. Narrative Genre

- 1) Type : Narrative is used to convey students' experiences chronologically and contextually.

- 2) Use : Tells how students use spontaneous methods to overcome speaking anxiety, including the use of facial expressions, eye contact, and standing positions.
- 3) Example : "*Students managed their facial expressions to gain confidence and reduce anxiety feeling.*"
- 4) Purpose : To convey students' real experiences, which can be used as references in learning.

### Title : Effects of Incoherent Sentences in English Undergraduate Students' Thesis Background

The Results and Discussion section of this paper uses several types of genres to present the findings systematically, relevantly, and applicatively. These genres include descriptive, analytical, expository, prescriptive, and evaluative, with a focus on the impact of incoherent sentences on academic texts.

#### a. Descriptive Genre

- 1) Type : This genre is used to convey the main findings factually.
- 2) Use : Identifying the number and location of incoherent sentences in the analyzed text, and their impact on the topic of the paragraph.
- 3) Example : "*The number of incoherent sentence findings is 15 inside four texts.*"
- 4) Purpose : To provide a detailed description of the distribution and characteristics of incoherent sentences.

#### b. Analytical Genre

- 1) Type : This genre evaluates the impact of incoherent sentences on the information in the text.
- 2) Use : Analyzing the relationship between incoherent sentences and concepts, theories, hypotheses, and research frameworks.
- 3) Example : "*Application of incoherence sentence gives unclear limitation of concept and theory of study to readers.*"
- 4) Purpose : Highlighting the negative impact on reader comprehension and the scientific validity of the text.

c. Expository Genre

- 1) Type : This genre explains the implications of findings for learning and research.
- 2) Use : Discusses how misinformation can lead readers to misinterpret or overgeneralize.
- 3) Example : *"Paragraph 1 of text 3 whose topic of general language function contains an incoherent sentence of 'English is one of the most important subjects because it is an international language.'"*
- 4) Purpose : To provide insight into the systemic effects of incoherent sentences in academic texts.

d. Perspective Genre

- 1) Type : This genre provides suggestions for improving the quality of the text.
- 2) Use : Recommends strategies to avoid using incoherent sentences, such as better structuring of ideas and appropriate word choice.
- 3) Example : *"Preparing the organization of information is a key point to avoid using incoherence sentences."*
- 4) Purpose : Guides writers in composing more structured and informative texts.

e. Evaluative Genre

- 1) Type : This genre evaluates the quality of a text based on research findings..
- 2) Use : Assessing the impact of incoherent sentences on the trustworthiness and credibility of a text.
- 3) Example : *"The worst effect is decreasing scientific, truthfulness, and trustworthiness information of a paper."*
- 4) Purpose : Identifying and preventing the reduction in scientific value of a text due to coherence errors.



## **CONCLUSION & SUGGESTION**

This study analyzed the application of various types of genres in the "Results and Discussion" section of selected scientific articles. The results of the study indicate that genres such as descriptive, expository, prescriptive, analytical, narrative, and evaluative are used strategically to improve the clarity, relevance, and scientific strength of the writing. With the Systemic Functional Linguistics (SFL) approach, it was found that the choice of genre greatly supports the ideational, interpersonal, and textual functions, thus creating effective scientific communication that meets academic standards. Based on these findings, we, as writers, suggest that:

1. Further research is conducted by analyzing more articles from various fields of science to broaden understanding.
2. The genre approach is applied in academic writing learning, so that students can more easily understand and apply the appropriate structure.
3. Training and workshops on the use of genres in scientific writing are held for lecturers and researchers.
4. A simple tool is developed to recognize and analyze genres in scientific texts.
5. Collaboration between linguists and educators is encouraged to create better writing teaching methods.

With the implementation of these steps, the results of this study can support the development of more effective scientific writing skills, both at the student and writers levels.

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