

## **Move Structure of Abstracts in Master's Theses of Science Discipline from Sagaing University**

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### **Abstract**

An abstract is a concise summary of the whole content of all the important components of a research paper or thesis. The present research aims to analyze move structure of abstracts in selected Master's Theses of science discipline from Sagaing University. A total of twenty abstracts of theses submitted by post-graduate students in 2021 were randomly taken for the current study. In the analysis of data on move structure, the theoretical concept of Weissberg and Burkner (1990) was employed with a comprehensive framework covering Background (B), Purpose (P), Method (M), Results (R), and Conclusion (C). The result of the study shows that the method move and the result move occur dominantly in most abstracts while the other moves are less frequent than these two moves. It is found the students do not follow the conventional structure of abstracts proposed by the scholars. It is hoped that the findings from this study will be able to contribute to some understandings about the move structure of the abstracts and to help students with thesis writing to a certain extent.

Keywords: abstract, research paper, thesis, move structure, science discipline

### **Introduction**

A research paper should include the main components such as abstract, introduction, literature review, methods, results and discussion, conclusion, and reference of the work. Although the abstract is not placed in the body of the research paper, it is the first section of a report, coming after the title and before the introduction. It is usually written last after all of the parts have been completed, since it is a brief account of the whole paper. Based on information from the other sections of the report, the abstract provides a concise and accurate description of the study for the reader to quickly understand the main points without having to read the entire text.

A move is defined by Swales (1990) as a unit or a textual section within a text that serves a specific communicative purpose and contributes to the overall coherence of the genre. Move analysis is an analytical approach to text identification and a useful tool to evaluate various types of genres such as academic paper, thesis and essay. In terms of move structure, a number of researchers have analyzed the organizational patterns of research article components from various disciplines such as the abstract section, the introduction section, the method section, the discussion section and the conclusion section.

In view of the importance of abstracts of the research papers, several books have included guidelines as to how abstracts should be written or structured (Tseng, 2011). Many scholars, including Swales (1990), Santos (1996) and Hyland (2000) underscored that a well-written abstract shall include at least four moves capturing the essential parts of a research article such as introducing the purpose, describing the methodology, summarizing the results and presenting the conclusion.

There are very few studies that have explored the abstracts of Master's theses written by the post-graduate students for their Master degrees. The aim of this research paper therefore is to investigate the move structure of the abstract section of Master's Theses of Science Discipline from Sagaing University.

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## Literature Review

There are general structures of research paper that have been claimed according to the nature of field of study or standard of particular board or publishing details. These can generally be termed as institutional or local or national standard. However, for a research article to be published internationally it is required to follow the set standard or structure. Likewise, the abstract of each research field may have its own form and structure, which must be strictly complied with. Although it has diverse structure, there is already a common global agreement and rules governing how to write good and acceptable research abstracts. The role of an appropriate writing of an abstract becomes significantly important in a research article when it is aimed to be published in either national or international publication. Therefore it can be said that move analysis of research paper abstracts is very integral and useful practice as it provides the researcher with the recent trends in abstract writing.

To analyze the abstract structure of research articles, various models have been proposed by various scholars. Swales (1990) shows that an abstract of a research article generally consists of four rhetorical patterns or moves, namely Introduction, Method, Result and Discussion (IMRD). Weissberg and Burker (1990) presented a five-move model of an abstract in their text book. The five moves proposed in their model are Background, Purpose, Method, Results and Conclusion (BPMRC). Similarly Hyland (2004) classifies the rhetorical moves in the research article abstract, and they are Introduction, Purpose, Method, Product and Conclusion (IPMPrC). From these guidelines, it can be seen that a five-move model is a suggested structure of an abstract although the moves are entitled differently in different books.

There are many previous studies concerning the analysis of the move structures of abstracts in various disciplines. In the research paper entitled "Move Analysis of Senior High School Research Abstracts in a Philippine University", Roxas (2020) examined a move analysis of thirty randomly-selected research abstracts of Grade 12 senior high school students in a Philippine University. This analysis employed Hyland's model of move analysis. The results revealed the three dominant moves in the corpus of research abstracts namely Introduction-Purpose-Method-Product, Introduction-Purpose-Method-Product-Conclusion, and Introduction-Product-Method.

Al-Khasawneh (2017) conducted the research paper "A Genre Analysis of Research Article Abstracts Written by Native and Non-Native Speakers of English". In this research paper, the researcher analyzed twenty abstracts written by native and non-native speakers of English in the Applied Linguistics field. Hyland's (2000) model of genre analysis was employed to explore the differences between native and non-native writers in rhetorical structure of research abstracts. The results of the study indicated that both native and non-native writers followed the rhetorical structure of three moves (Purpose, Method, and Conclusion), while there was a significant difference between those writers in the introduction and conclusion moves. Native writers were more eager to employ these two moves compared to their non-native counterparts.

Darabad (2016) presented the cross-disciplinary research abstracts between Applied Linguistics, Applied Mathematics, and Applied Chemistry. He employed the Hyland (2000) model in analyzing the move structures of the abstracts. According to the result of his research, most of the abstracts in Applied Linguistics and Applied Mathematics disciplines were composed of four moves. In Applied Chemistry corpus, however, the majority of abstracts included only three moves.

Doró (2013) analyzed the twenty linguistics and twenty literature abstracts published in two English Studies journals, following Santos's (1996) model. As the result of the research, it was found that the linguistics abstracts more often provided clear reference to the research scope, methodology and main results, while literature abstracts focused on the placement of the research into a wider context and offered a more tentative reference to the findings.

Tseng (2011) investigated 90 abstracts in three applied linguistics journals: 30 abstracts from TESOL Quarterly, 30 abstracts from Applied Linguistics and 30 abstracts from Language Learning. The researcher examined the abstracts from two dimensions: the move structure features and the verb tense of each move by employing Santo's (1996) five-move pattern. The result showed that the abstracts analyzed tended to take a four-move structure instead of a five-move one. According to the finding, there were some variations between the abstracts written by native speakers and nonnative speakers of English.

### **Materials and Method**

For the data of the present research, a total of 20 abstracts were randomly selected from the Master's theses of science discipline submitted by the post-graduate students from Sagaing University in 2021.

In the analysis of data on move structure, the theoretical concept of Weissberg and Burker (1990) was employed. They proposed a five-move model of research article abstracts. The model provides a comprehensive framework covering Background (B), Purpose (P), Method (M), Results (R), and Conclusion (C). Each move represents the realization of a communicative purpose.

When it comes to the functions of the moves, the background move usually establishes the research by stating the present knowledge and discussing some points related to the field. The purpose move is employed to present the objectives of the study. It describes what the researchers aim to achieve or investigate. The method move summarizes the research methodology or approach employed in the study. It may include information about the study design, data collection methods, sample size, data analysis techniques, or any experimental procedures used. The result move is used to briefly present a concise summary of the key outcomes or findings of the study. The conclusion move is employed by the researchers to make their claims about the research and summarize the implications drawn from the results.

A sample analysis of the move structure of the abstracts in the master's theses of the post-graduate students in the field of science discipline is described in the following table.

Table 1: A sample analysis of the move structure of the abstracts of science discipline

Sr.	Text	Move
1	Natural dyes are environmentally and economically superior to ruthenium based dyes because they are nontoxic and cheap.	B
2	The present study aimed to determine human health risks associated via food chain of heavy metals manganese (Mn), iron (Fe), zinc (Zn) and copper (Cu) routing from cultivated soil to chickpeas.	P
3	The phytochemical screening of selected sample was done by using test tube method. The mineral elements of carrots were analyzed by using Energy Dispersive X-ray Fluorescence (EDXRF) spectrometry.	M
4	The results indicated that drinking water samples in this research is non-polluted and can be used for domestic and drinking according to physio-chemical parameters in Myaung Region.	R
5	It was hoped that this will help those who are working the cytogenetic of <i>Allium</i> genus in family Amaryllidaceae.	C

### Findings and Discussion

Based on the theory of Weissberg and Burker (1990), the present study analyzed a total of 20 randomly-selected abstracts written by the post-graduate students from Sagaing University for their master's theses of science discipline in 2021. The frequency and percentage of the moves of the abstracts in Mater's Theses of Science Discipline are presented in the following table.

Table 2: Move Structure of the Abstracts of Mater's Theses of Science Discipline

Move	Frequency	Percentage
Background	2	10%
Purpose	6	30%
Method	15	75%
Result	11	55%
Conclusion	2	10%

As shown in the above table, it is found that the method move has the highest percentage, sharing 75%. The second most frequently used type is the result move with 55%. These two moves are followed by purpose move with a proportion of 30%, and background and conclusion moves with a proportion of 10% respectively.

The method move is found in most abstracts written by the post-graduate students of science discipline. It can be said that they place emphasis on the set methods and principles they use in carrying out their theses. Over half of the students include the result move in writing the abstracts. However, the background move, the purpose move and the conclusion

move occur less frequently compared to these two moves. It is found that the written abstracts do not conform with the conventional structure of abstracts proposed by Weissberg and Burker (1990) fully.

The frequency and percentage of the number of moves of the abstracts are presented in the following table.

Table 3: Number of Moves of the Abstracts of Mater's Theses of Science Disciplines

Number of Move	Frequency	Percentage
Five moves	0	0%
Four moves	0	0%
Three moves	4	20%
Two moves	8	40%
One move	8	40%

As it can be seen in the above table, there is no occurrence of both five moves and four moves in the abstracts of Mater's Theses of Science Discipline. The students use only three move at the most. Therefore it can be said that the abstracts of Mater's Theses of Science Discipline are not in line with the convention of abstract writing wholly.

### Conclusion

The present study aims at analyzing twenty abstracts written by the post-graduate students for the master's theses of science discipline submitted to the respective departments in Sagaing University. To achieve the purpose of the study, the theory proposed by Weissberg and Burker (1990) was employed.

There are two objectives for carrying out this research. The first objective is to find out what types of moves are used in the twenty abstracts of master's theses of science discipline and observe which types of move is dominantly used. According to the first objective, the way the post-graduate students from Sagaing University used the moves in their abstracts of master's theses was investigated. The study showed the high occurrence of the method move (75%) and the result move (55%), followed by the purpose move (30%) in the abstracts. In addition, the lower frequency of occurrence belonged to the introduction move and conclusion move with (10%) each.

The second objective is to explore whether the abstracts conform with the convention of writing abstracts proposed by Weissberg and Burker (1990). For this purpose, an attempt is made to identify the move structure of the abstracts. It was found that there were some similarities and differences among the abstracts in the use of move structure. It is found that the abstracts are not in line with the conventional structure of abstracts proposed by Weissberg and Burker (1990) fully.

All five moves may not be necessary to be included in one abstract and the order may vary. An abstract may use less moves as long as it succeeded in communicating its purpose of reflecting the content of the research article. Therefore, the number of occurrences of moves in the abstract of different disciplines may vary with different move patterns according to their

need. Nevertheless various scholars have highlighted the features of a finely-written abstract and there is already a common global agreement and rules governing how to write good and acceptable research abstracts. The ability to effectively write the abstracts of a research article becomes increasingly crucial when it is aimed to be published in academic journals.

Due to the limitation of time, only a small scale of data are used in this present study. To give a clearer picture of the overall move structure of abstracts in theses and dissertations, a study with a large number of samples is suggested. It is hoped that the result of this study may serve as a guideline for students to be able to write a proper abstract in the field of academic writing, especially in thesis and dissertation writing.

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